

ADDENDUM TO THE FINAL  
FOCUSED ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M  
SCH# 89032915

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

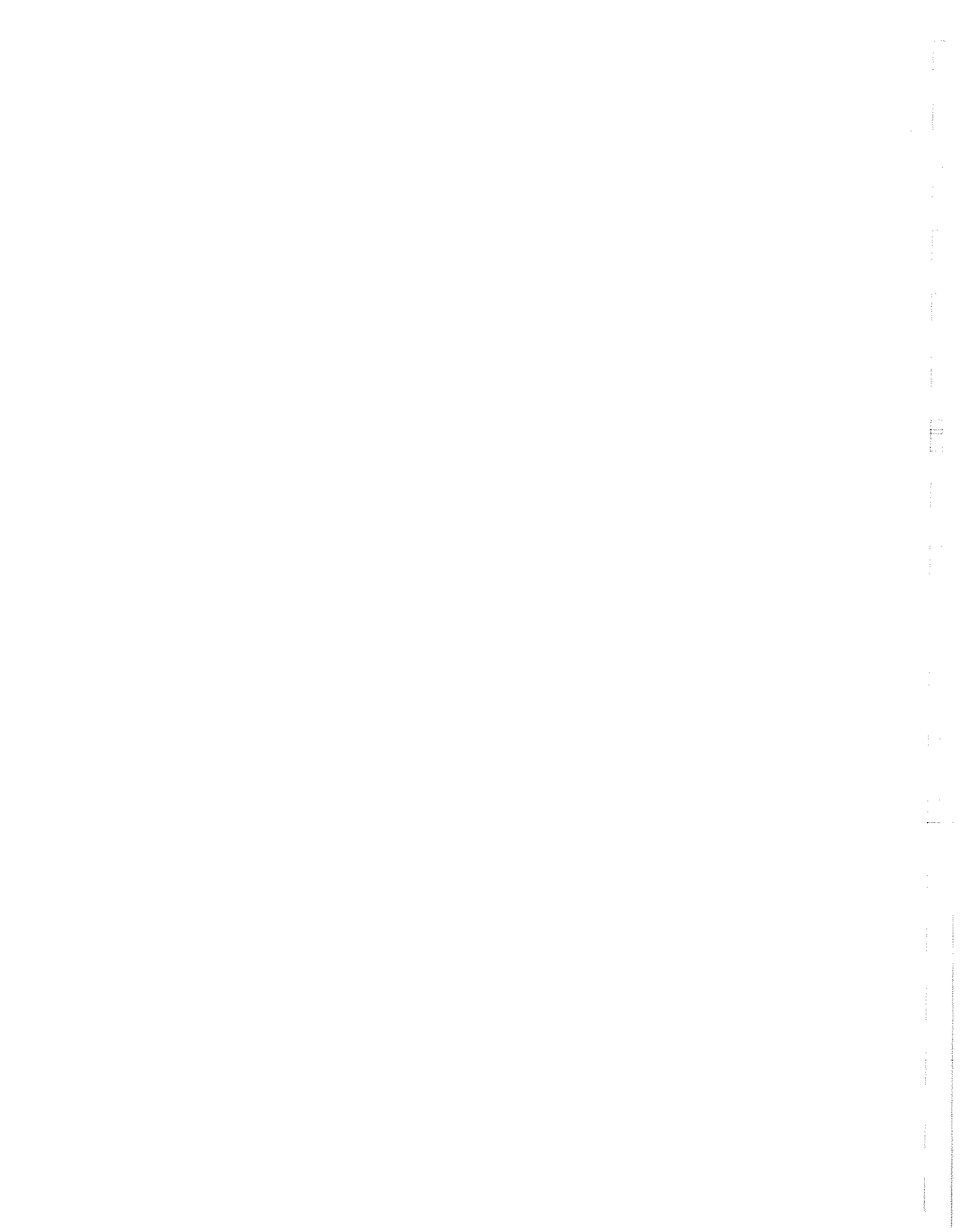
A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

January 1990



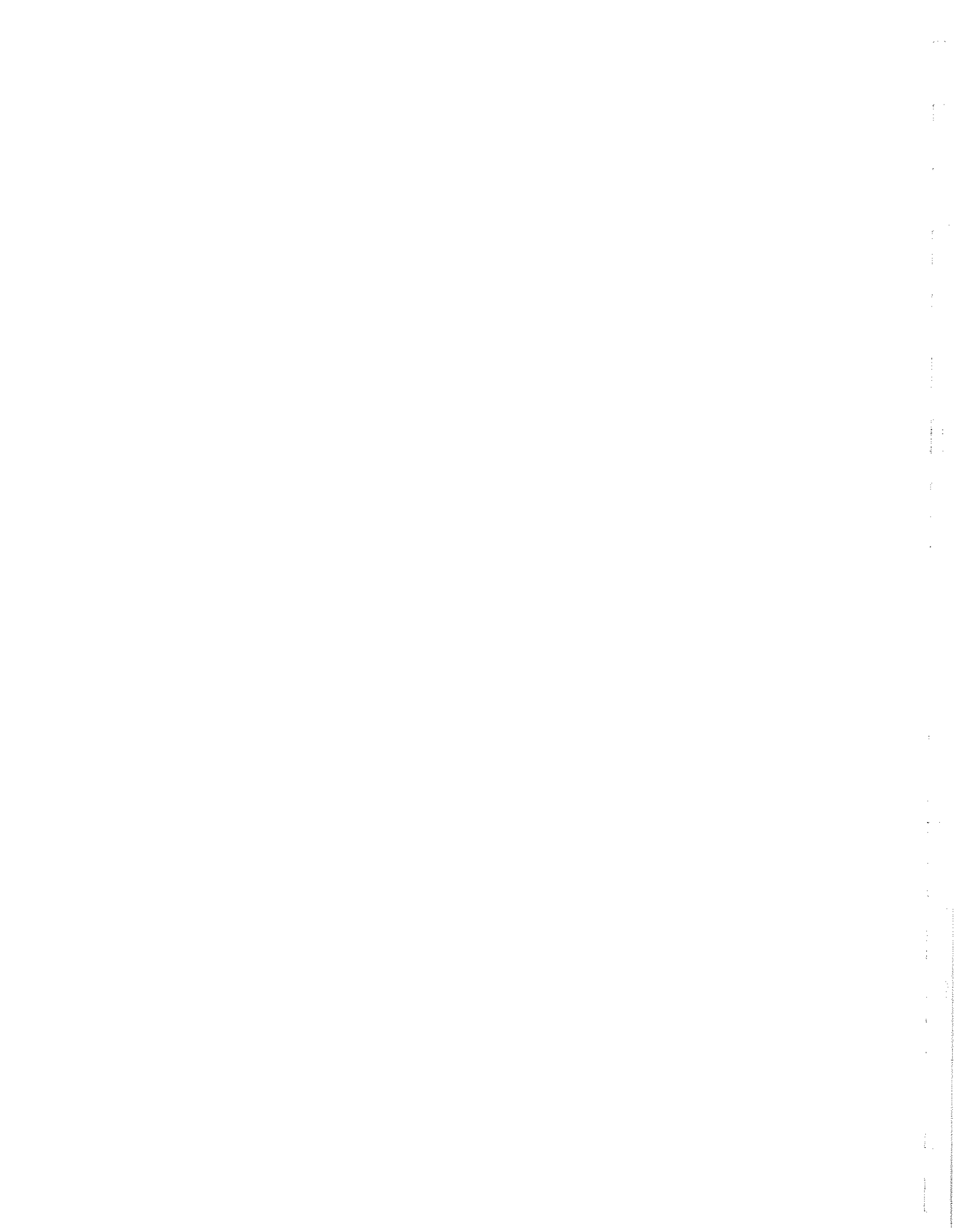
## TABLE OF CONTENTS

<u>SECTION</u>	<u>ADDENDUM PAGE</u>
I. INTRODUCTION	I
II. MONTGOMERY PLANNING COMMITTEE COMMENTS AND RESPONSES	1
III. REPLACEMENT PAGES	8
IV. REVISED CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS ANALYSIS	9
V. REVISED APPENDIX D - ECONOMIC IMPACT ANALYSIS FOR THE PALOMAR TROLLEY CENTER	10
VI. CONSULTANT IDENTIFICATION	12



# **SECTION I**

## **Introduction**



## SECTION I INTRODUCTION

This document is an addendum to the Final Focused Environmental Impact Report (FEIR) For The Palomar Trolley Center EIR-89-4M, and was prepared to address the concerns of the Montgomery Planning Committee (MPC) that were raised subsequent to the certification of the Draft Environmental Impact Report (DEIR) by the City of Chula Vista Planning Commission on July 12, 1989.

The MPC did not publicly review the DEIR during the 45-day public review period from March 29, 1989 to May 12, 1989. Consequently, no comments were received from the committee to be incorporated into the FEIR. The MPC members received the DEIR and FEIR in July, 1989, and publicly reviewed the FEIR at their meetings on July 19, and August 2, 1989. The committee's comments on the FEIR, and the required responses, are included in Section II of this addendum.

Some of the MPC's comments on the FEIR have warranted revisions to portions of text and tables of the document. Also, it was discovered that two revisions that should have been made to the DEIR following the public review period, at the direction of the Planning Department, were not included in the FEIR. These revisions are provided on "replacement pages" which constitute Section III of this addendum.

The City Planning Department directed that an updated economic study be prepared in response to concerns expressed by the MPC and the project applicant. These concerns are detailed in Section V of this addendum. The new study was completed in December, 1989. It surveyed potentially impacted retail centers, strip commercial, and retail uses operating under conditional use permits in limited industrial zones located within the Montgomery Specific Plan area, and adjacent areas. Also, economic forecasts for 1991 are used instead of 1993 forecasts. This revised Economic Impact Analysis, is included in Section V of this addendum.

Since the Economic Impact Analysis technical report was revised, it was also necessary to revise Chapter 3.2 - Community Social Factors of the FEIR, to coincide with the updated data. However, since the MPC had also expressed concern over the complexity and readability of Chapter 3.2 of the FEIR, the City's Planning Department directed that the revised Chapter 3.2 should be written in a more condensed format. The revised Chapter 3.2, presented in Section IV of this addendum, highlights the key points of the study, while excluding most of the tables, figures, and base data that were in the previous format, since they are already contained in the technical report in the Appendix.

The replacement pages, revised Chapter 3.2, and revised Appendix D are printed on blue paper to distinguish them separately from the explanatory portions of this addendum. These blue pages supersede their corresponding pages and portions of the FEIR. This addendum is intended to be read as an attachment to the FEIR.





## **SECTION II**

# **Montgomery Planning Committee Comments and Responses**



**SECTION II**  
**MONTGOMERY PLANNING COMMITTEE COMMENTS**

The following are comments on the Final Environmental Impact Report (FEIR) made by the Montgomery Planning Committee and the required responses. Some of the comments warranted revisions to the document. Such revisions are noted in the corresponding response. Some comments were made on specific elements of the previous economic impact analysis of the FEIR (addresses, vacancies, etc.) that no longer apply to the revised study and new study methodology. They no longer apply because the revised study uses a completely new market area survey. These comments are, therefore, not included.

1. In the Comments And Responses section of the Final Environmental Impact Report (FEIR), the page entitled "Roger Daoust's Letter Attachment A" is actually a copy of page 29 of the FEIR edited as per Roger Daoust's letter with a number of responses listed on the reverse side. The requested corrections to tables are not included in the attachment.

Response #1: The page entitled "Roger Daoust's Letter Attachment A" is a photocopy of page 29 from the EIR included by the Engineering Department as an attachment with Roger Daoust's letter to show the text requested to be deleted, (see comment #2 of Roger Daoust's letter). This attachment is part of the Engineering Department's comment letter, not a response. Since the inclusion of the photocopy attachment has caused some confusion, it is replaced with a copy that states: "this is photocopy of page 29 of the EIR that was sent by the Engineering Department to show the text requested to be deleted as per comment #2 of Roger Daoust's letter." The replacement page is included in Section III of this addendum.

2. In reference to the FEIR comment #1 and response, Table 3.1.3 (page 21) referred to in Roger Daoust's letter, the entire table is suspect. The staff member at the table Wednesday evening (August 2, 1989 Montgomery Planning Committee Meeting) referred to differences in road widths which are not reflected in the edited table. There is no explanation either on page 21, nor in "Letter Attachment A".

Response #2: The requested revisions to Table 3.1.3 were completed as per comment #1, but the table was revised a second time at the direction of the Engineering Department at a subsequent meeting on June 7, 1989. Mehran Sepehri (Engineering Staff, Traffic) stated that the "X-Section" (cross section) width for "collector" standards was incorrectly listed in the table as 64/84, and should be 74/94. At the time the Draft EIR was prepared, 64/84 was the correct cross section width for collectors. Subsequent to that time the City adopted a new General Plan. The Circulation Element adopted as part of the Plan amended the collector standard cross section width to 74/94. Mehran stated that this was an oversight on the part of the Engineering Department when the

table was revised in the 6/7/89 meeting. With the exception of the "X-Section" width for "collector" standards, the table is consistent with the Engineering Department's information on roadway standards for the City.

According to the Engineering Department, the cross section width error has no bearing on the results of the traffic analysis. The cross section widths listed in Table 3.1.3 are the standards for right-of-way widths and pavement widths for streets within the City of Chula Vista (e.g., 74/94 = 74' of pavement within a 94' right of way). Since the error did not affect the designation of street classifications for the streets analyzed in the study, it has no bearing on the results of the traffic analysis. The error, however, has been corrected. The corrected table is included on a replacement page in Section III of this addendum.

3. In reference to the FEIR comment #5 and response, Section 3.1.3 mitigation Measure #8 on Page 31 is not so corrected; it is merely deleted.

Response #3: Mitigation Measure #8 (3.1.3.8) for traffic impacts was revised as per comment #5, but was subsequently deleted at the request of the Engineering Department (6/7/89 meeting). The wording regarding the cul-de-sac as per comment #5 was then inserted on page 27 (2nd sentence of paragraph 4). The Engineering staff requested this change so that the cul-de-sac would be part of the project, and not a mitigation measure.

4. The FEIR response #7 addresses Roger Daoust's Letter and discusses the "Jayken Way" access. Excerpts of text from a variety of locations in the FEIR indicates a reduction of traffic to the Broadway/Palomar intersection from LOS C to LOS B. Concurrent escalation on Jayken Way and Anita is ignored.

Response #4: An additional project alternative which discusses a Jayken Way access was requested by the Engineering Department in Comment #7 of the FEIR. Response #7 of the FEIR indicates that: (1) the requested alternative has been added to the EIR; (2) the pages where text was added; and (3) a copy of the text that was added to the EIR. The escalation of traffic on Jayken Way and Anita Street is indicated in the first and third paragraph of the added text.

5. The FEIR Response #9 seems reversed. Isn't the train traffic pre-emptive rather than pre-empted? The trains are the pre-emptors not the pre-emptees!

Response #5: The signals are pre-empted by train traffic. This error is corrected by replacing the word "pre-empted" with "pre-emptive" on the replacement page included in Section III of this addendum.

6. Page I-4 of the FEIR does not make sense. The first sentence of the third paragraph states: "Broadway north of Palomar Street will deteriorate to Level Of Service E under existing plus project plus approved project conditions." This sentence does not make sense.

Response #6: The sentence "Broadway north of Palomar Street will deteriorate to Level Of Service E under existing plus project plus approved project conditions" means that the Level Of Service (LOS) on the segment of Broadway north of Palomar Street will deteriorate to LOS E under conditions that include existing traffic levels, plus traffic generated by the project and the traffic generated by nearby approved projects.

7. In the Executive Summary on page I-4 of the FEIR, mitigation measure #3 in the Transportation/Access summary is removed.

Response #7: Transportation/Access mitigation measure #3, which concerned a traffic signal removal analysis, was removed at the request of the City Traffic Engineering Department at the June 7, 1989 meeting. After further consideration subsequent to the writing of Roger Daoust's letter, the City Traffic Engineering Department felt that the traffic signal removal analysis was an unnecessary requirement because the traffic signal relocation was already a mitigation measure and was going to occur regardless. The City Traffic Engineering Department had already found that the relocation would be of beneficial impact to traffic flow along this section of Palomar Street.

8. In deference to Committee member J. Berlanga's comments (July 19, and August 2, 1989 Montgomery Planning Committee Meetings) - the map on page 3 (Figure 2.1.2) shows the project as much larger than it is shown on other maps throughout the Transportation/Access section and Community Social Factors Section. The map on page 55, for example, shows the project site as being much smaller.

Response #8: The map on page 3 is to scale, within accepted tolerances (+10 percent). The scale 1 inch = 2000 feet is indicated. Maps labeled "No Scale", such as the map on page 55, are not drawn to scale. Features on these maps are, therefore, representative of approximate locations and do not attempt to exhibit size or distance.

9. Figure 2.3.1 "Related Projects" on page 9 of the FEIR is factually inaccurate. The project indicated as the Palomar Commerce Center (#4) is Trolley Center, I think. Also, Palomar Square, referred to in Appendix D, is not indicated.

Response #9: The information for Figure 2.3.1 (page 9) was provided by the City's Planning Department. According to the Negative Declaration (IS-88-72) and map provided by the City, the Palomar Commerce Center is located within the shaded area #4 indicated in Figure 2.3.1. The projects shown in this

figure were the only recently approved projects the City's Planning Department indicated should be included in the report. Palomar Square is not considered by the City to be a "recently approved" project. Recent projects were selected by the Planning Department at the commencement of the Draft EIR in November, 1988, and were projects that were approved or under consideration by design review, or were in plan check, but not constructed.

10. The FEIR Transportation/Access analysis' "Focus" is so tight as to ignore Orange Avenue (and the problems created by the Jack-in-the-Box).

Response #10: The transportation/access analysis does not ignore Orange Avenue. Orange Avenue is included throughout the analysis. Existing, future and cumulative ADT, as well as, traffic distribution are indicated for Orange Avenue (see pages 11, 16, 18, 19, and 20). Orange Avenue is not included in the analysis discussing street segments level of service (LOS) impacts because it is not impacted. The LOS on Orange Avenue will not decrease. The summary of impacts on page 28 discusses the impacts and impacted street segments. After discussing impacts to Palomar Street and Broadway, the FEIR text states that all other segments will operate at acceptable levels, including Orange Avenue.

11. On page 12 of the FEIR the Anita Street description states that this street serves high density residential and industrial uses. We have concern about the residential uses being impacted by the increase of traffic on Anita Street resulting from the Jayken Way access alternative.

Response #11: If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 Average Daily Trips (ADT) west of Jayken Way and 500 ADT east of Jayken Way. Considering that the current ADT (at the time of the study) is 4,200, these represent increases of 4.7 percent and 11.9 percent respectively. These are not considered significant increases. Anita Street is classified as a collector street. Since level of service (LOS) A for a collector street can be achieved at 16,500 ADT or below, it is apparent that Anita Street will continue to operate well within LOS A standards.

12. Orange Avenue is omitted/glossed over in Table 3.1.4 on page 22 of the FEIR.

Response #12: Orange Avenue was not included in Table 3.1.4 because it is not significantly impacted by the project and will continue to operate at acceptable levels of service (LOS). Orange Avenue will operate at LOS A. Table 3.1.3 of the FEIR shows what the expected LOS of a street is, given the street classification and the traffic volume. It indicates that LOS A for a Major road is 22,500 ADT or less. Orange Avenue is classified as a four-lane Major Street, as stated in Paragraph 1 on page 13 of the FEIR. Future traffic levels on

Orange Avenue that would result from the development of the project is shown as 10,100 average daily trips (ADT) on Figures 3.1.4, & 3.1.5 of the FEIR.

13. On page 46 of the FEIR Palomar Commerce Center is cited as being located at 635-675 Naples. But Figure 2.3.1 "Related Projects" on page 9 pictures Palomar Commerce Center (#4) as across Palomar Street from the project site.

Response #13: The City's Negative Declaration for the Palomar Commerce Center states that it is "located on the south side of Oxford, north of Palomar, between Broadway and Industrial," with primary access fronting on Palomar. And the Negative Declaration lists the street address as 687-693 Palomar Street. However, according to the revised economic impact analysis by CIC Research, the actual address is 635-675 Palomar. Thus, the Naples street address has been corrected. Location #4 in Figure 2.3.1 of the FEIR is correct. In spite of all this, the wrong address did not have any bearing on the data used (location, square footage, number of employees, etc.) or the analysis in which it was used and, thus, had no effect whatsoever on the results of the study. The location of the center was correct and it was appropriately included in the study. The wrong address was no more significant than a "typo".

14. The "Focus" of Table 3.2.8 (pages 50-54) of the FEIR spreads to cover entire south Chula Vista. Appendix D, page 18 Demographic Profile divides the market area into concentric circles, 1.5 mile - 10.00 mile radii. The economic impact analysis fails to analyze the projects related to each specific type but seems to lump all of the different types of stores, ie. Analyze new market's impact on similar markets within the appropriate radius from the entire area. This seems to contradict page 18 in Appendix D.

Response #14: The "Focus", of Table 3.2.8 does not cover the entire south Chula Vista area. The area covered is bounded by "L" Street to the north, Main Street to the south, Third Avenue to the East, and Industrial Boulevard to the west. Regardless, this comment no longer applies because the economic study has been completely revised, and the Revised Community Social Factors chapter of the EIR (Section IV of this addendum) no longer contains Table 3.2.8.

The revised economic impact analysis (Section V of this addendum) continues to present demographic information from 1.5 mile to 10.0 mile radii market areas around the proposed site. The economic impact analysis analyzes retail outlets by type (State Board Of Equalization Categories), which are located generally within the Montgomery Specific Plan area.

15. The Community Social Factors analysis in Section 4.3 Reduced Project Alternative (pages 82 and 83) seems to contradict the conclusions of the Community Social Factors analysis indicated

in the Environmental Analysis on page 68, and in the Executive summary on page I-5. The Community Social Factors analysis in Section 4.3, Reduced Project Alternative, indicates that this alternative will have less socio-economic impacts, which could result in physical deterioration of nearby commercial centers, than the proposed project. This indicates to me that the project will cause socio-economic impacts, whereas, it is stated in the Environmental Analysis on page 68, and in the Executive summary on page I-5, "no significant socio-economic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers".

Response #15: Neither the proposed project nor reduced project alternative will cause any socio-economic impacts which would result in the physical deterioration of nearby commercial centers. What is stated in the Community Social Factors analysis in Section 4.3 Reduced Project Alternative of the FEIR is that "Development of the site under this alternative would decrease the potential for socio-economic impacts which could result in the physical deterioration of nearby commercial centers..." and "The potential for impacts from increased competition, especially from fast food restaurants, would be substantially reduced". Since there is a potential for impacts to occur, the issue was analyzed in the EIR. The conclusion of the analysis is that there would be no actual impact.

16. On page 89 "Persons and Organizations Contacted" does not include any planning personnel. Planning data is included in reference documents.

Response #16: This list indicates persons who were cited in text of the EIR. Since no Planning Department personnel were cited in the text, none were listed on page 89 of the FEIR. However, the EIR was prepared for the City of Chula Vista Planning Department, and Planning Department staff directed and reviewed the preparation of the EIR. Therefore, this page is replaced with a version that includes City of Chula Vista Staff. It is included in Section III of this addendum.

17. Committee member Creveling does not agree with the required fire flow of 5,000 gallons per minute indicated in the Initial Study in Appendix A of the FEIR. He feels that it is too much.

Response #17: The Fire Department section of the Initial Study was completed by the City's Fire Marshall, Carol Gove, who determined that a fire flow of 5,000 gpm, along with other fire prevention requirements, would be required for the project.

18. Committee member Creveling feels that the EIR should address the positive economic impacts that the Palomar Trolley Center would have.



Response #18: Although an economic impact study was used for the Community Social Factors Analysis of the EIR, its purpose was to aid in determining whether or not the proposed center would result in the physical deterioration of the surrounding commercial centers. It would not be consistent with the purpose of the study, nor the scope of the EIR, to address the positive economic impacts of the proposed center.

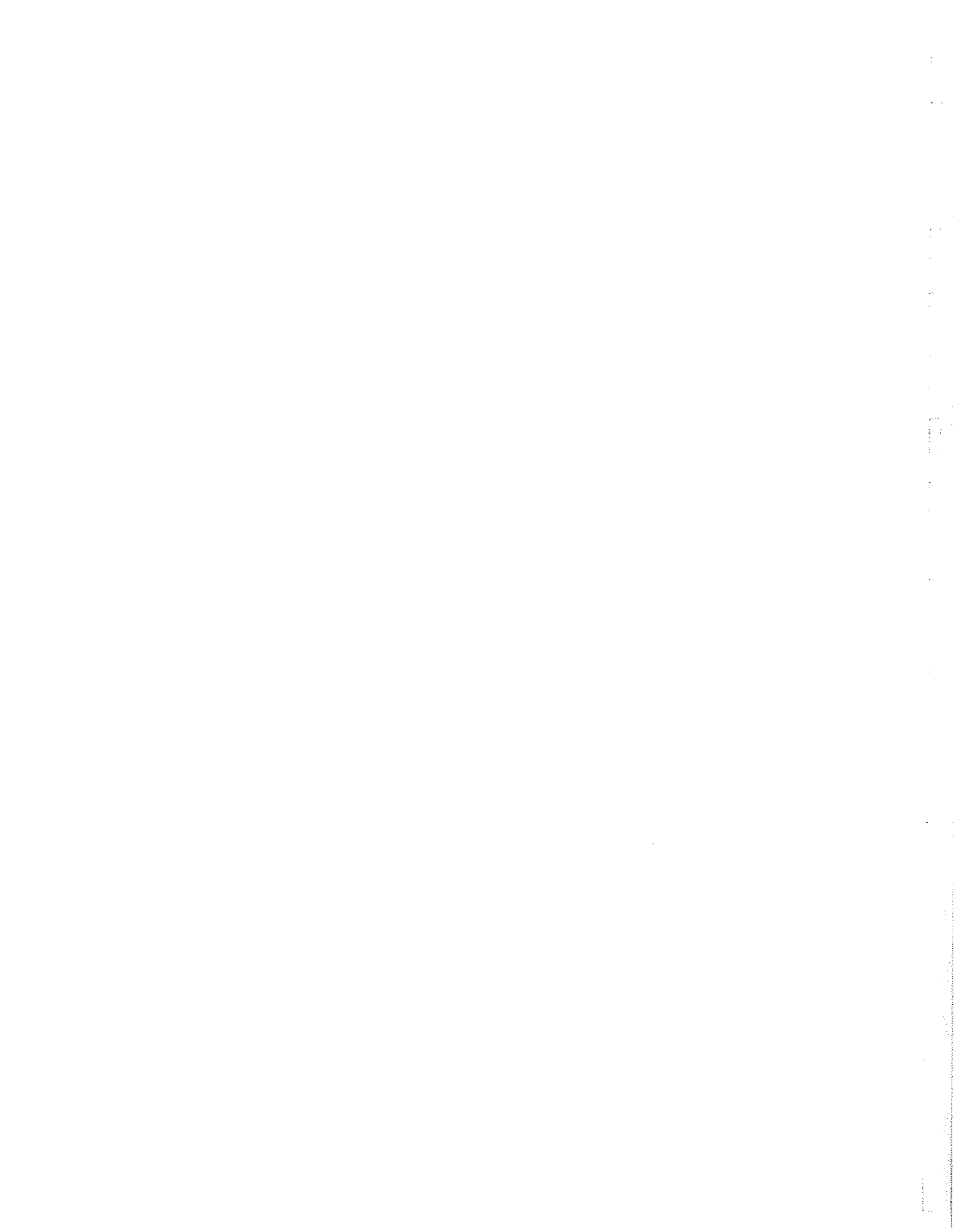
19. The Palomar/I-5 intersection has reached its saturation point. Who will monitor the effects of the proposed center on the intersection?

Response #19: The Palomar/I-5 intersection is already scheduled for improvements. The City of Chula Vista and CALTRANS are currently working together on the planning of the project. The effects of Palomar Trolley Center individually on this specific intersection would not be monitored.



**SECTION III**

**Replacement Pages**



### SECTION III REPLACEMENT PAGES

Some of the Montgomery Planning Committee's (MPC) comments on the FEIR warranted revisions to portions of the FEIR text and tables. Also, it was discovered that revisions that should have been made to the DEIR following the public review period (at the direction of the Planning Department) were not included in the FEIR. These revisions have now been completed and are provided in this section as "replacement pages" that supersede the corresponding pages of the FEIR.

The reasons the pages were replaced are as follows:

1. The page entitled "Roger Daoust's Letter Attachment A" of the FEIR is replaced in response to MPC Comment #1. Since the inclusion of the photocopy attachment caused confusion, it is replaced with a copy that states: "This is a photocopy of page 29 of the DEIR attached to a letter sent by the Engineering Department to the Planning Department showing the text requested to be deleted as per comment #2 of Roger Daoust's letter."
2. In response to MPC Comment #5, the page containing Response #9 of the FEIR is replaced with a version that revises the word "pre-empted" with the correct word, "pre-emptive".
3. Figure 2.3.1 on Page 9 of the FEIR did not have a north arrow and did not indicate scale. It is replaced with a version that does.
4. Page 14 of the FEIR is replaced because the columns in Table 3.1.1 were misaligned.
5. Table 3.1.3 on Page 21 of the FEIR is replaced with a version that corrects the "X-Section" (cross section) width for "collector" street standards to 74/94. It was incorrectly listed as 64/84 in the FEIR. This error is further explained in Response #2 in Section II of this addendum. Additionally, the columns of the revised Table 3.1.3 have been realigned so that "X-Section" and "V/C Ratio" are not mistakenly read as one column.
6. Page 81 of the FEIR is replaced because the 2nd sentence of the 5th paragraph had read "... under the proposed C-N zoning." The proposed zoning is C-C. It has been corrected by strike-over and underline to read "... under the proposed ~~C-N~~ C-C zoning."
7. Page 89 of the FEIR is replaced in response to MPC Comment #16 regarding the inclusion of City staff in the references. The replacement page 89 includes City staff in the references.



## Roger Daoust's Letter Attachment A

(Attached Photocopy From Daoust's Letter)

Note: This is a photocopy of page 29 of the DEIR attached to a letter sent by the Engineering Department to the Planning Department showing the text requested to be deleted as per comment #2 of Roger Daoust's letter.

Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS E according to the Roadway Classification Standards contained in the Circulation Element, as indicated in the Willden report. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus,~~ it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

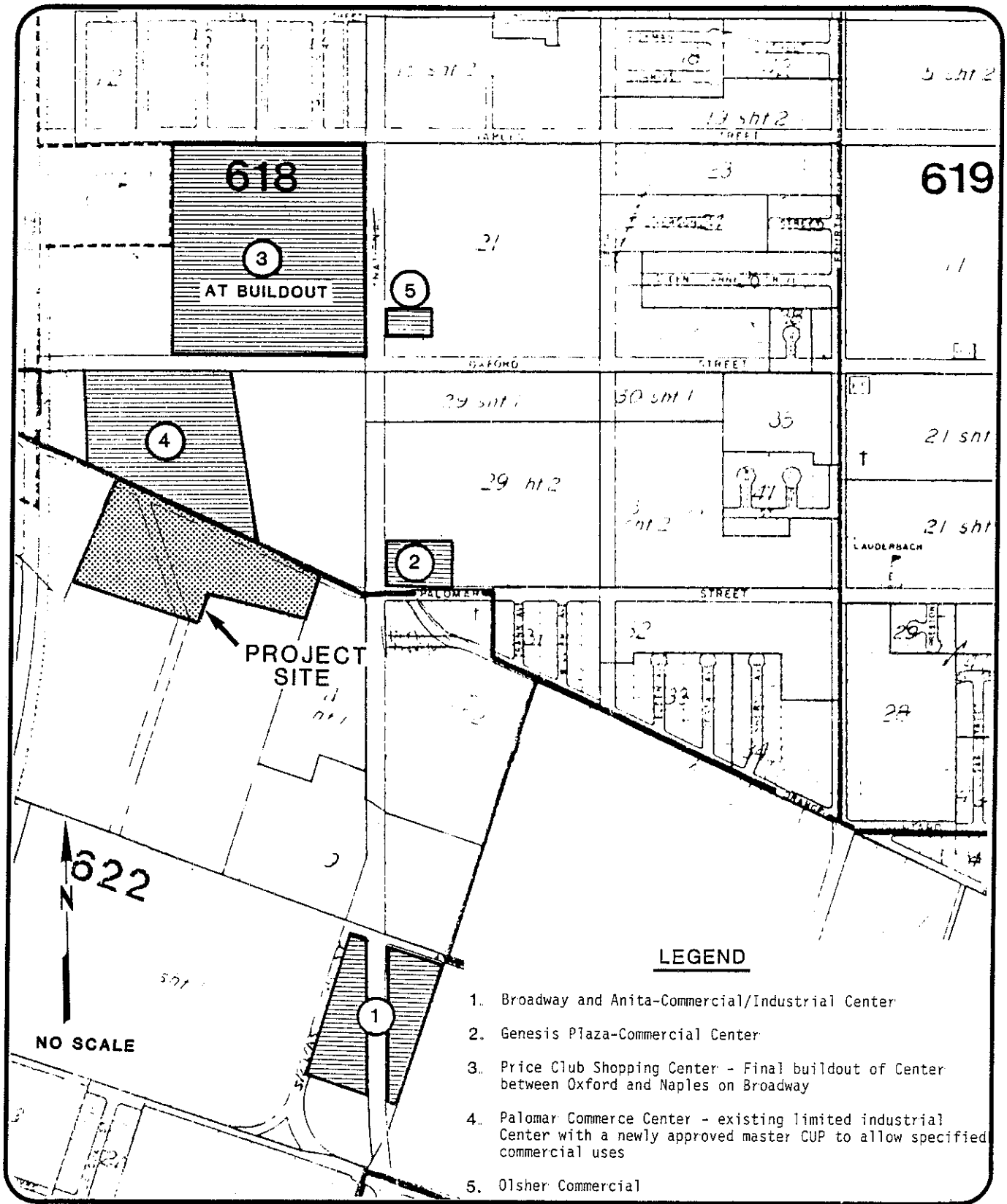
2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by

Response #9

No altering of the at-grade rail crossing is anticipated. The traffic signals in the area currently operate to allow for pre-emptive train traffic, and no changes are anticipated.





**LEGEND**

1. Broadway and Anita-Commercial/Industrial Center
2. Genesis Plaza-Commercial Center
3. Price Club Shopping Center - Final buildout of Center between Oxford and Naples on Broadway
4. Palomar Commerce Center - existing limited industrial Center with a newly approved master CUP to allow specified commercial uses
5. Olsher Commercial

SOURCE: City of Chula Vista

Figure 2.3.1

**Related Projects**

A. D. HINSHAW ASSOCIATES

Table 3.1.1 indicates the trip generation for the project site assuming development under current light industrial zoning. Table 3.1.2 summarizes the generation of expected trips from the proposed project and recently approved projects identified by the City of Chula Vista.

**TABLE 3.1.1  
TRIP GENERATION  
CURRENT ZONING**

Land Use	Trip		ADT	PM Peak Hour		
	Intensity	Rate		%	In	Out
Light Ind.	12.23 ac	90/ac	1,100	12%	26	106

Source: Willdan Associates

As shown in Table 3.1.2 the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). Nearby approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would be 1,100 ADT, with 132 trips occurring during the PM peak hour (see Table 3.1.2). Therefore, the proposed project would generate an additional 5,148 ADT with 494 PM peak hour trips compared to the current light industrial zoning. Due to the proposed land uses (primarily commercial) the PM peak hour is critical since only a minimal amount of commercial traffic is expected during the AM peak hour. Analyzing the peak hour is important, because this period generally places the highest demand on the surrounding street system.

#### Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks and public buildings. A major element is the interaction between commercial connectors and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site. This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 3.1.2 shows the distribution of trips to and from the proposed project site.

As shown in Figure 3.1.2, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35 and 15 percent north and south along Broadway

Table 3.1.3

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION

AVERAGE DAILY VEHICLE TRIPS

ROAD	X-SECTION	LEVEL OF SERVICE					
		V/C RATIO (.6)	A (.7)	B (.8)	C* (.9)	D (1.0)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500	
Major Road	80/100	22,500	26,300	30,000	33,800	37,500	
Collector	74/94	16,500	19,300	22,000	24,800	27,500	
Modified Collector	52/72	9,000	10,500	12,000	13,500	15,000	
Light Collector	40/60	5,600	6,600	7,500	8,500	9,400	

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.

## 4.0 ALTERNATIVES

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. By analyzing and weighing alternatives, decision-makers can make judgments concerning the advantages and disadvantages of each alternative in relation to the proposed project.

### 4.1 NO PROJECT

This alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition if this alternative were to be adopted. No significant environmental impacts are expected to occur as a result of this alternative.

### 4.2 EXISTING ZONING

This alternative would develop the site in accord with the existing land use and zoning designations. The existing Specific Plan land use designation for the site is Research and Limited Industrial [A-1]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2]. The development is assumed to be a light industrial project with a total gross floor area of 137,500 sq.ft.

#### Transportation/Access

If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT with 132 trips occurring during the P.M. peak hour, therefore generating 5,148 less ADT and 494 less trips during the P.M. peak hour than the proposed project. Under this alternative, the traffic impacts associated with the development of the site would be significantly less.

#### Community Social Factors

The current zoning, Limited Impact Industrial Use (M52), is intended for manufacturing and industrial uses which evidence no or very low nuisance characteristics. The M52 zone permits a range of commercial uses; some of which are also permitted under the proposed ~~C-N~~ C-C zoning. These uses are, however, dissimilar in that they are intended to support, or be secondary to the industrial uses. The project site would not be in direct competition with nearby commercial centers if developed under this alternative. Therefore, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

## 9.0 REFERENCES

### 9.A Reference Documents

1. City of Chula Vista, Montgomery Specific Plan, 9/13/88
2. County of San Diego, Zoning Ordinance, 10/18/78, as amended
3. City of Chula Vista, Zoning Ordinance,
4. Willdan Associates, Traffic Analysis For Palomar Trolley Center, 10/14/88
5. JHK & Associates, Review of Traffic Analysis, 1/5/89
6. City of Chula Vista, Growth Management Threshold Standards, 11/17/87
7. City of Chula Vista, General Plan Digest
8. City of Chula Vista, Initial Study For Palomar Trolley Center (IS-88-63M),
9. City of Chula Vista, General Plan, Parks and Recreation Element, 2/74
10. Johnson, Vaughn, Preliminary Drainage Study For Palomar Trolley Station,
11. Sweetwater Authority, Water Service Availability Letter, 1/10/89
12. CIC Research, Inc., Economic Analysis For Palomar Trolley Center, 1/89

### 9.B Persons and Organizations Contacted

#### Cited in Text

1. Mr. Jim Dyer, Captain, City of Chula Vista Fire Department, (619)691-5055
2. Mr. Keith Hawkins, Captain, City of Chula Vista Police Department, (619)691-5184
3. Mr. Jim Smyth, Senior Civil Engineer, Sweetwater Authority, (619)420-1413
4. Mr. Roger Daoust, Senior Civil Engineer, City of Chula Vista Engineering Department, (619)691-5021
5. Mr. Meharan Sepehri, Associate Traffic Engineer, City of Chula Vista, (619)691-5026

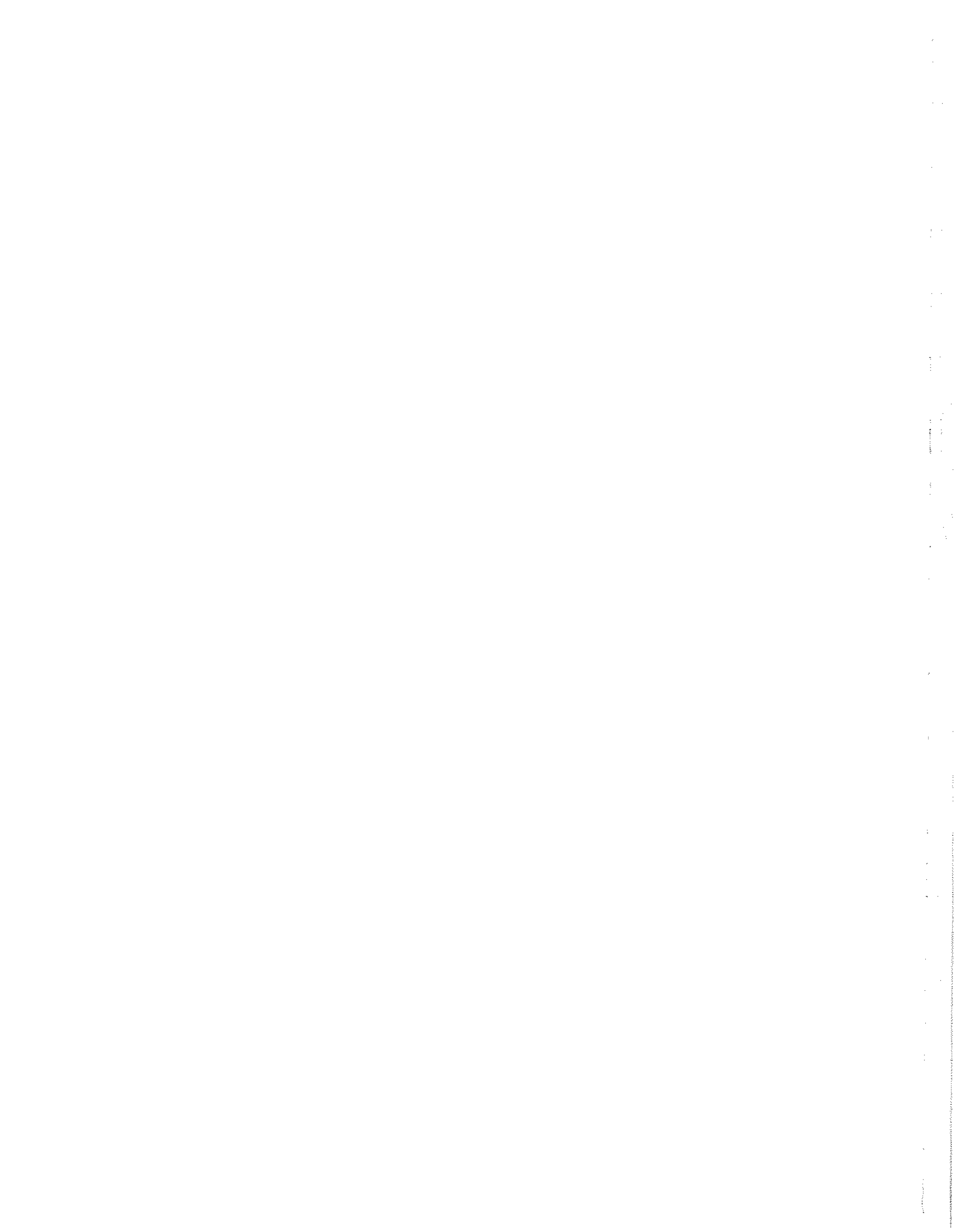
#### Others

6. Mr. Daniel Pass, Principal Planner, City of Chula Vista Planning Department, (619)691-5101
7. Mr. Douglas Reid, Environmental Review Coordinator, City of Chula Vista Planning Department, (619)691-5101
8. Ms. Barbara Reid, Assistant Planner, City of Chula Vista Planning Department, (619)691-5101
9. Mr. Hal Rosenberg, City Engineer, City of Chula Vista, (619)691-5101
10. Ms. Julie Schilling, Assistant Planner (former), City of Chula Vista Planning Department
11. Mr. Steve Thomas, Senior Civil Engineer, City of Chula Vista, (619)691-5021



## **SECTION IV**

### **Revised Chapter 3.2– Community Social Factors Analysis**





SECTION IV  
REVISED CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS

Since the Economic Impact Analysis technical report was revised, it was also necessary to revise Chapter 3.2 - Community Social Factors, to coincide with the updated data. However, since the MPC had expressed concern over the complexity and readability of Chapter 3.2 of the FEIR, the City's Planning Department directed that the revised Chapter 3.2 should be simplified and made easier to read than the Chapter 3.2 contained in the FEIR.

The revised Chapter 3.2, presented in this section, highlights the key points of the study, while excluding most of the tables, figures, and base data that were in the Chapter 3.2 contained in the FEIR, since they are already contained in the technical report in the Appendix.

The previous version of Chapter 3.2 constituted 40 pages of the FEIR (pages 32 - 71). The revised version of Chapter 3.2 contains only 10 pages. Although there is not a page-for-page replacement, the revised Chapter 3.2 supersedes the entire previous Chapter 3.2 of the FEIR, obviating the remaining 30 pages of Chapter 3.2 of the FEIR (pages 42 - 71). Pages 42 - 71 of the FEIR are, therefore, replaced with a "blank" page as indicated on page 42 of the revised Chapter 3.2 in this section.



## 3.2 COMMUNITY SOCIAL FACTORS

The California Environmental Quality Act (CEQA) provides for the analysis of economic and social impacts as they relate to physical changes in the environment. CEQA Guidelines establish that the economic or social effects of a project shall not be treated as significant effects on the environment, but shall be analyzed to trace the chain of cause and effect between the economic or social effects of a project and the physical changes to the environment resulting from them. The focus of the analysis shall be on the physical changes (CEQA Guidelines, Section 15131).

An Economic Impact Analysis for the Palomar Trolley Center was prepared by CIC Research, Inc. to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the proposed project. The study is not intended to represent a feasibility analysis for the subject development.

Of primary concern are retail centers located along Broadway and Third Avenue; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of the analysis (see Figure 3.2.1).

This section presents the findings of the socioeconomic analysis. The complete Economic Impact Analysis report is contained in Appendix A of this Addendum.

### 3.2.1 PROJECT SETTING

The proposed Palomar Trolley Center is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the Montgomery Specific Plan area of the City of Chula Vista (see Figure 3.2.1). It comprises 12.23 acres with 128,387 square feet (sq.ft.) planned for development, resulting in a coverage ratio of 24 percent. The 128,387 gross sq.ft. of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants (supermarket and drug store) and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 sq.ft. In-line shops would occupy 10,200 sq.ft., and the five pads would provide 15,335 sq.ft. of space (see Figure 3.2.2).

To determine the proposed Palomar Trolley Center's trade area (the area from which the Palomar Trolley Center would draw business) and the market impact area (the area that has the potential to be physically impacted due to economic impacts caused



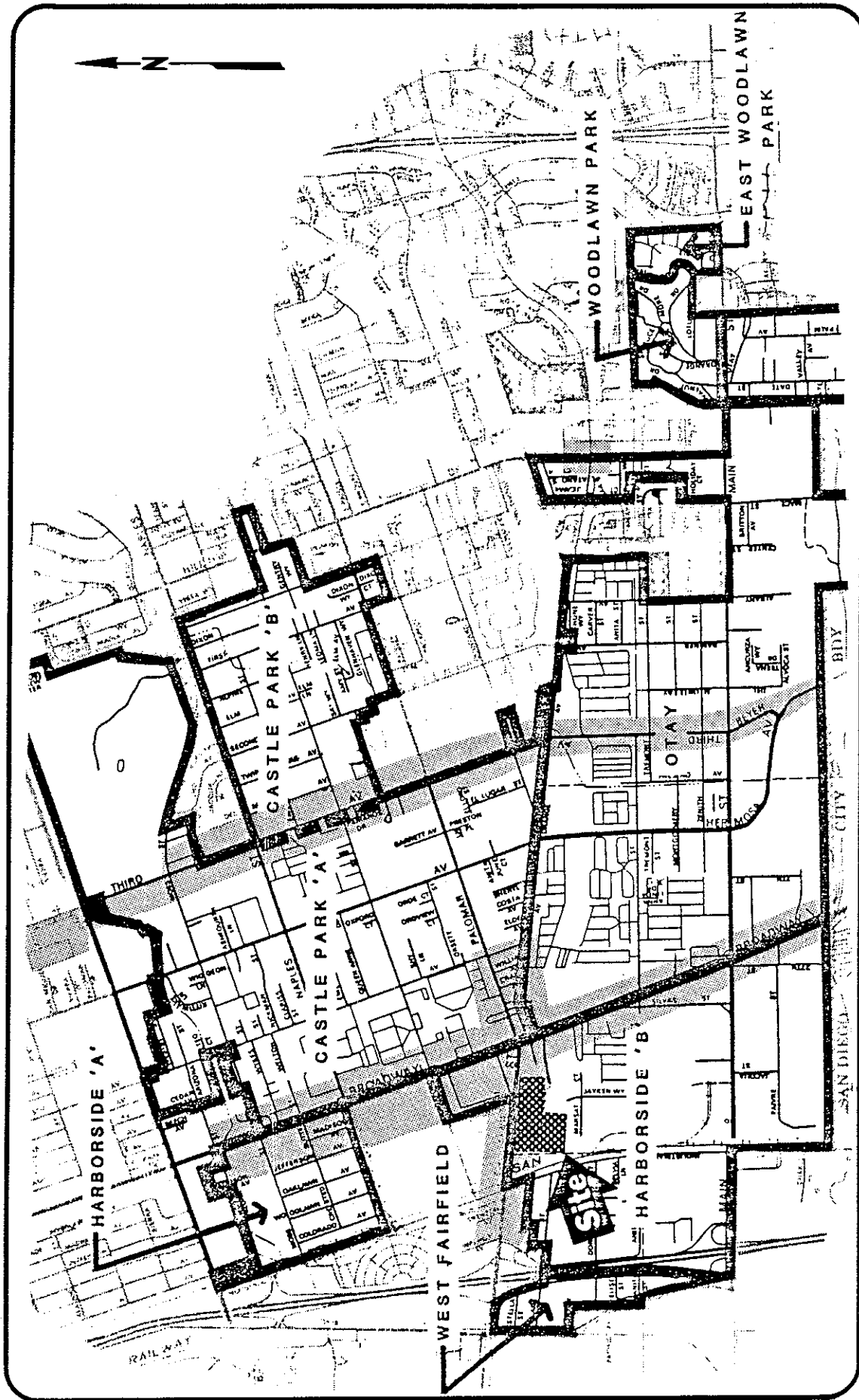



Figure 3.2.1

Field Survey Area

A. D. HINSHAW ASSOCIATES

No Scale

 SURVEY AREA



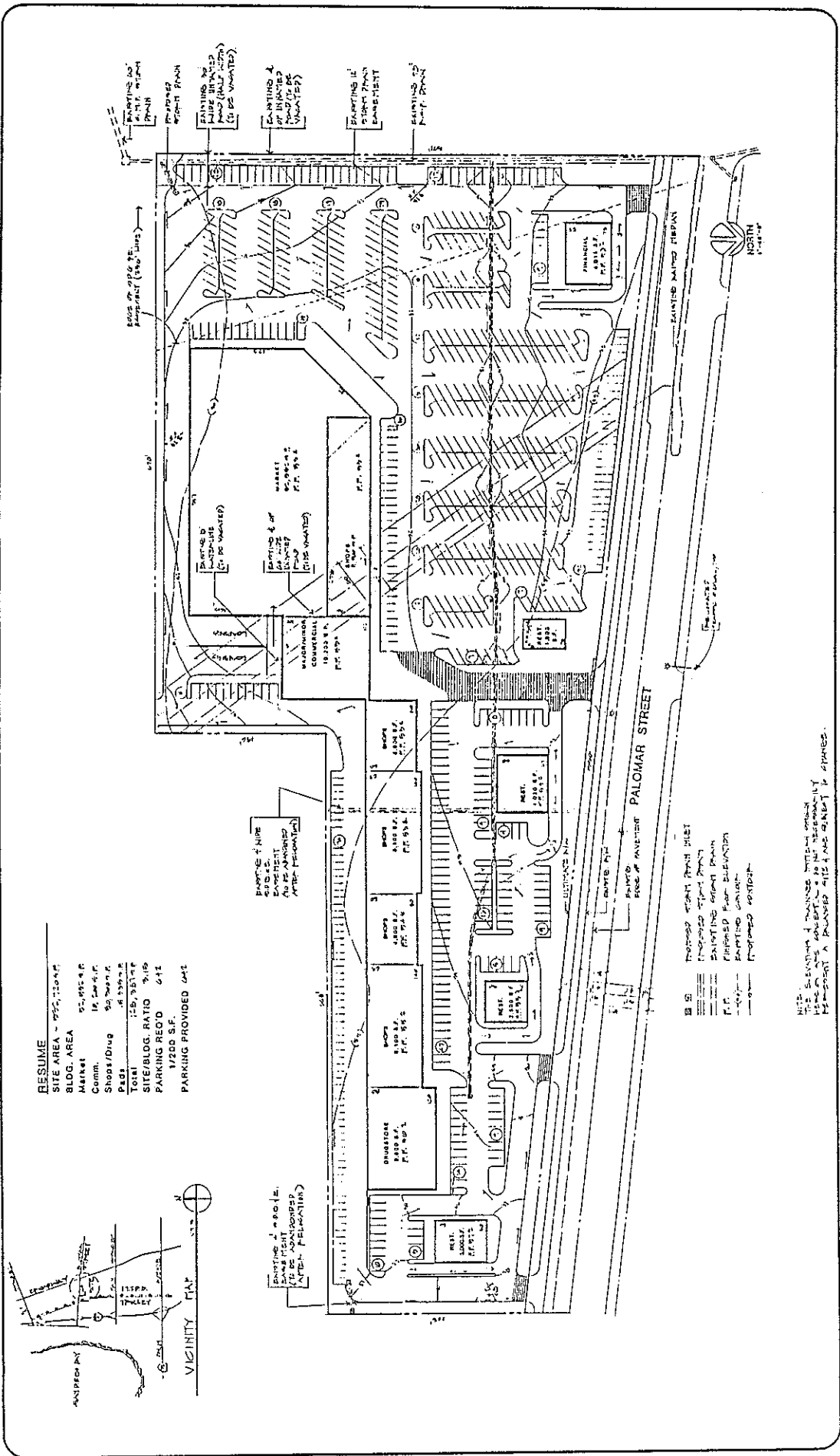


Figure 9.2.2

Site Plan

A. D. HINSHAW ASSOCIATES

SOURCE: Brown Leary Architecture and Planning

by development of the Palomar Trolley Center), the following considerations were evaluated:

- . The proposed development plan (site plan);
- . The locations of competitive retail space in relation to the proposed site; and
- . traffic patterns to the site and traffic volumes in the vicinity of the study site (Appendix A, p.12).

The site plan shows that the proposed Palomar Trolley Center would be representative of a large scale neighborhood shopping center or a small scale community shopping center, with a supermarket as the principal anchor. The Palomar Trolley Center trade area is expected to draw support from the residential and employment bases within a 3.0 mile radius trade area (Appendix A, pgs. 12-13).

Based on the location of competitive retail space in relation to the proposed development, it was determined that the market impact area includes Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan area (Appendix A, p.13).

The major traffic routes to the project site include Broadway from the north and Palomar Street from the west via Interstate 5. This indicates that retail developments along these two routes will have higher potential to be impacted both positively and negatively by the proposed development. However, since Interstate 5 travelers have access to a variety of retail developments, it would be difficult to determine which retail areas these travelers would bypass in favor of the proposed project. Therefore, based on confirmed traffic patterns, retail developments on Broadway would represent the primary market impact area (Appendix A, p.13, 15).

The shaded portion indicated on the map in Figure 3.2.1 represents the areas where retail projects were surveyed (see Appendix A, p. 2, for survey methodology). A total of 1,860,716 sq.ft. of retail space was surveyed/identified, of which 1,626,210 sq.ft. are occupied by retail tenants/owners. The difference is accounted for by 91,799 sq.ft. in office uses located within surveyed retail centers and 142,707 sq.ft. of vacant space (7.7% vacancy) (Appendix A, p.22). In addition, seven planned retail developments totalling 94,150 sq.ft. were identified (Appendix A, p. 24).

Table 3.2.1 presents the existing square footage and number of outlets in the market impact area, by retail type. Out of the 1,718,009 sq.ft. of occupied space within the market impact area (1,626,210 sq.ft. retail plus 91,799 sq.ft. office), a total of 414 establishments were identified.



**TABLE 3.2.1**

**POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA**

	Existing Occupied Retail Space		Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	74,055	31	6,000	1	8%	3%
General merchandise	387,950	8	10,200	1	3	13
Drug stores	43,150	4	9,600	1	22	25
Food stores	212,293	39	52,552	1	25	3
Packaged liquor Eating and drinking places	11,940	5	---	---	0	0
Furniture, furnishings and appliances	213,342	81	11,320	4	5	5
Building materials and farm implements	204,860	39	---	---	0	0
Auto supplies/dealers	153,498	5	---	---	0	0
Service stations	28,487	14	---	---	0	0
Other retail stores	14,600	6	---	---	0	0
	<u>128,189</u>	<u>60</u>	<u>32,700</u>	<u>16</u>	<u>26</u>	<u>27</u>
<b>Retail Store Total</b>	<b>1,472,364</b>	<b>292</b>	<b>122,372</b>	<b>24</b>	<b>8%</b>	<b>8%</b>
Business and Personal Retail Service	<u>153,846</u>	<u>84</u>	<u>2,000</u>	<u>1</u>	<u>1</u>	<u>1</u>
<b>Total</b>	<b>1,626,210</b>	<b>376</b>	<b>124,372</b>	<b>25</b>	<b>8%</b>	<b>7%</b>
Office space within retail centers	<u>91,799</u>	<u>38</u>	<u>4,015</u>	<u>1</u>	<u>4</u>	<u>3</u>
<b>Total Space Surveyed</b>	<b>1,718,009</b>	<b>414</b>	<b>128,387</b>	<b>26</b>	<b>7%</b>	<b>6%</b>

Source: CIC Research, Inc., September 1989

Table 3.2.2 presents the estimated retail sales (available expenditures) by retail type, at the estimated time of the project's opening in 1991, within 1.5-mile, 3.0-mile, and 5.0-mile radii areas of the proposed project. As previously stated, the Palomar Trolley Center trade area is expected to draw support from within a 3.0 mile radius trade area. As shown in Table 3.2.2, the total retail sales, or available expenditures, for the 3.0 mile radius trade area is estimated to be \$932,567,000.00 annually (Appendix A, p. 30).

### 3.2.2 IMPACTS

Impacts resulting from the development of the proposed Palomar Trolley Center have been analyzed in terms of market impacts and market capture rates, which have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales (Appendix A, p. 26). In order to estimate potential market impact, a profile of typical tenants which would occupy space at the proposed center was assumed. The estimated square footage and sales distribution (1988 dollars) for a supermarket/drug store concept plan for the proposed center are shown in Table 3.2.3.

The proposed Palomar Trolley Center represents eight percent of the occupied retail square footage and eight percent of the retail outlets in the market impact area (see Table 3.2.1). The proposed office use at the center would represent four percent of the surveyed office square footage within retail centers, and three percent of the office outlets in the market impact area. Assuming the seven identified planned retail developments are fully occupied, the retail portion of Palomar Trolley Center would represent 7.1 percent of the total existing and planned retail square footage (Appendix A, p.25).

As shown in Table 3.2.1, the retail uses categories of Drug Store, Food Store and Other Retail Stores represent a higher proportion of the area's retail square footage than do the other categories. The proposed drug store represents 22 percent of the area's drug store square footage, and 25 percent of the area's drug store outlets. The proposed food store represents 25 percent of the area's food store square footage, but only 3 percent of the total 39 food store outlets. The proposed food store would be one of five major food stores (over 20,000 square feet) and 35 other smaller food outlets (Appendix A, p. 27). The fact that these square footage proportions are so large (22% to 25%) in a retail district with over 1.6 million square feet of occupied retail space suggests that the area has been under-supplied in these categories.

As shown in Table 3.2.2, potential annual gross sales for the Palomar Trolley Center in 1991 are estimated at \$30,133,000. The primary revenue sources are the proposed food store (\$19,516,000 annually) followed by the drug store (\$1,719,000 annually). In terms of market share capture the center represents 17 percent of 1.5 mile area's potential sales, three percent of the 3.0 mile

**TABLE 3.2.2**

MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
(1988 dollars, values in thousands)

	Estimated 1991 Retail Sales		Palomar Trolley Center Projected Sales	Palomar Trolley Center Capture of Market Area Sales		
	Trade Area Around Site			1.5 Miles	3.0 Miles	5.0 Miles
	1.5 Miles	3.0 Miles		11%	2%	1%
Apparel	\$ 7,899	\$ 44,439	\$874	11%	2%	1%
General Merchandise	27,091	135,216	1,025	4	1	1
Drug Stores	6,450	31,615	1,719	27	5	4
Food Stores	39,091	202,142	19,516	50	10	6
Eating and Drinking Places	17,361	89,531	1,779	10	2	1
Furniture, Furnishings and Appliances	7,885	47,969	---	---	---	---
Building Materials and Farm Implements	7,927	42,847	---	---	---	---
Auto Dealers and Supplies	29,138	158,273	---	---	---	---
Service Stations	15,570	82,495	---	---	---	---
Other Retail Stores	<u>14,894</u>	<u>98,041</u>	<u>5,010</u>	<u>34</u>	<u>5</u>	<u>3</u>
Subtotal	<b>\$173,306</b>	<b>\$932,567</b>	<b>\$29,923</b>	<b>17%</b>	<b>3%</b>	<b>2%</b>
Business and Personal Retail Services	---	---	210	---	---	---
<b>TOTAL</b>	<b>\$173,306</b>	<b>\$932,567</b>	<b>\$30,133</b>	<b>17%</b>	<b>3%</b>	<b>2%</b>

Source: CIC Research, Inc., 1989  
Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
National Decision Systems

**TABLE 3.2.3**  
**SUBJECT PROJECT POTENTIAL SALES**  
**SUPERMARKET/DRUG STORE CENTER**  
**(1988 Dollars)**

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	10,200	100.52	1,025
Drug stores	9,600	174.09	1,719
Food stores supermarket	52,552	371.37	19,516
Eating & drinking places			
fast food	4,300	179.11	770
restaurant	<u>7,020</u>	143.72	<u>1,009</u>
	11,320		1,779
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>30,700</u>	155.33	<u>4,769</u>
	32,700		5,010
Business and personal retail services			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,015	N/A	N/A
<b>Total</b>	<u><u>128,387</u></u>		<u><u>\$30,133</u></u>

---

Source: CIC Research, Inc., 1989  
Urban Land Institute, "Dollars and Cents of Shopping  
Centers, 1987"

area, and two percent of 5.0 mile area. Assuming the Palomar Trolley Center and the Ralphs/Target Center and other retail development at Palomar and Broadway create a synergy, the market area would include a region of up to three to five miles from the site. This market area is probably the best representation of regional draw for the site considering the expected tenant types and proximity to the community-size shopping center (Appendix A, p.29).

If all market conditions remained the same, the Palomar Trolley Center's potential capture of area retail expenditures would represent potential increases in the market area retail vacancy rates. An additional three percent increase in the vacancy rate within 3.0 miles of the site (the determined market impact area for the site) could occur, due to the center's potential to capture three percent of the total retail sales in the 3.0-mile market area (Appendix A, p.34).

In reconciling both supply and demand conditions the proportions of total retail square footage and market share capture of the Palomar Trolley Center do not imply a significant impact from development of the center. The Montgomery Specific Plan area's retail district has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district draws customers, while maintaining a reasonably low vacancy rate. The Palomar Trolley Center's market share proportions would have insignificant socioeconomic impacts on the total retail market in the Montgomery Specific Plan area, thus no physical deterioration to existing buildings or shopping centers is anticipated. However, future sales from the center will depend on competition with existing and planned retail outlets in the Montgomery Specific Plan area, as well as other market areas, and not from growth of the local population or households (Appendix A, pgs. 34-35).

In summary, population, housing, and employment growth are not requirements to support absorption of the Palomar Trolley Center. The draw and penetration of the retail district of Montgomery Specific Plan has been increasing faster than the growth in population and housing and expected to continue to do so (Appendix A, p.35). Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments (Appendix A, p.35).

### 3.2.3 MITIGATION

As previously discussed no significant adverse socioeconomic impacts are expected from development or operation of Palomar Trolley Center. Consequently, no physical deterioration can be anticipated to existing buildings or shopping centers. Therefore,

no mitigation measures associated with Community Social Factors are necessary for the development of the project.

#### 3.2.4 ANALYSIS OF SIGNIFICANCE

Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments, which would lead to the physical deterioration of existing buildings or shopping centers. If vacancies persist in other centers, they would relate to specific problems associated with poor design and leasing strategies of the centers. Also a poor location in relation to existing or planned retail centers could also cause vacancies. These factors are an active part of any retail market and represent a continual competitive process whereby the market responds to consumer preferences, and the attempt of developers and businesses to meet consumers' needs (Appendix A, p. 36).

THIS PAGE REPLACES PAGES 42 - 71 OF  
CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS,  
OF THE FINAL ENVIRONMENTAL IMPACT REPORT





## **SECTION V**

### **Revised Appendix D- Economic Impact Analysis for the Palomar Trolley Center**



SECTION V  
REVISED APPENDIX D - ECONOMIC IMPACT  
ANALYSIS FOR THE PALOMAR TROLLEY CENTER

The Montgomery Planning Committee (MPC) expressed several concerns regarding the accuracy of data in the Economic Impact Analysis prepared by CIC Research, which was used for the Community Social Factors analysis in the FEIR. Members of the MPC had conducted a "field-check" of commercial centers within the Montgomery Specific Plan Area and found that their data conflicted with CIC's data. Conflicting data included addresses, location and names of several shopping centers and vacancy rates. Also, the MPC felt that retail uses operating under conditional use permits (CUP) in limited industrial zones, which were left out of the study, should be included.

CIC determined that some of the center addresses, names, and locations in their original report were in error; however, the discrepancies regarding vacancies could not be compared. The MPC had based their vacancy ratios on the number of vacant shops to the total number of shops of each center. CIC based their vacancy ratios on vacant square footage to total square footage obtained from the State Board of Equalization and the leasing agents for each center. This is a standard and accepted method of obtaining data and calculating vacancy ratios. CIC indicated, however, that some new centers had opened during the time period between the completion of their vacancy survey in December, 1988, and the MPC field-check in July, 1989. CIC believes that any discrepancy in vacancies noted by the MPC is attributable to this time lag. The MPC agreed that time lag may have caused the noted discrepancy in vacancies and requested the preparation of a updated economic study.

Regarding the retail uses operating under CUPs in limited industrial zones, CIC indicated that they were not included in the original study because they were not located in centers similar to the proposed project. However, these uses are included in the new study.

In addition to the MPC's comments on the Economic Impact Analysis, the project applicant requested that 1991 economic forecasts be used in the Economic Impact Analysis rather than 1993 forecasts. CIC had used 1993 forecasted data based on their prediction that the project would be fully occupied by 1993. The project applicant, however, believes that full occupancy would occur in 1991 and, thus, requested that 1991 forecasts be used.

In response to the MPC's concerns and at the request of the applicant, the City Planning Department directed that an updated economic study be conducted. Hence, a revised Economic Impact Analysis for the Palomar Trolley Center was completed in December, 1989 by CIC Research, Inc. This study surveyed potentially impacted retail centers, strip retail, and conditional retail uses in limited industrial zones located within the Montgomery Specific Plan area, and adjacent areas. Also, 1991 economic forecasts are used instead of 1993 forecasts.

This revised Economic Impact Analysis is included in this section (on blue pages) and supersedes Appendix D of the FEIR.



ECONOMIC IMPACT ANALYSIS FOR  
PALOMAR TROLLEY CENTER

Prepared for:

City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Prepared by:

CIC Research, Inc.  
1215 Cushman Avenue  
San Diego, CA 92110

December 1989





## EXECUTIVE SUMMARY

This report summarizes the findings of a socioeconomic analysis of potential market impacts from development and operation of Palomar Trolley Center in Chula Vista, California. The primary purpose of this study is to identify any potential for physical deterioration of existing retail facilities resulting from socioeconomic causes related to the subject development. Of primary concern are retail centers located on Broadway in the vicinity of the study site on Palomar Street. However, all potentially impacted centers and strip retail within the Montgomery Specific Plan area have been included in the scope of this analysis.

The major findings of the study include, but are not limited to, the following:

1. The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. It comprises 12.23 acres with 128,387 square feet planned for development, resulting in a coverage ratio of 24 percent. The center is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five freestanding pads, four of which would be restaurants (fast food), and one a financial institution.
2. CIC surveyed approximately 1.9 million square feet of retail space, of which 1,626,210 square feet is occupied by retail tenants owners and 142,707 square feet of vacant space (7.7% vacancy). Also 91,799 square feet of office uses located within surveyed retail centers were surveyed. Seven planned retail developments were identified consisting of 94,150 square feet.

3. Within 1.5 miles of the subject site the population is projected to grow at .1 percent per year from 30,258 in 1988 to 30,350 in 1991. The 3.0-mile market area is projected to grow at 1.6 percent per year from 164,919 to 172,982 during the same period. Also, housing unit projections from 1988 to 1991 for the 1.5-mile area represent the slowest growth (0.1% annually) compared to a projected 1.7 percent annually for the 3.0-mile area.
4. Household incomes (1988) within the site's trading area are relatively low. Average household income within 1.5 miles of the site is \$20,686; within 3.0 miles of the site it is \$28,186. These income levels compare to an estimate of \$34,753 for San Diego County.
5. A total of 5,212 employees were estimated to work within the defined market area at for-lease industrial projects. These 5,212 employees currently support a major portion of 101,426 square feet of retail space within the market. Demand by these workers will require approximately 1,472 square feet of retail space annually from 1989 to 2010.
6. The retail portion of the proposed study site (124,372 square feet) would represent eight percent of the occupied retail space in the study area. The proposed office use at the study site (4,015) would represent four percent of the surveyed office space within retail centers. Combining the known planned developments (94,150 square feet) with the existing identified retail base results in the subject site representing 7.1 percent of the total existing and proposed retail space.
7. The proposed drug store and food store at the Palomar Trolley Center would represent a higher proportion of retail space and outlets compared to other retail categories identified in the survey. The proposed drug store represents 22 percent of the area retail space, as well as 25 percent of the area retail outlets. The proposed food store also would represent a high proportion (25%) of the area retail space and three percent of the total 39 food store outlets. Although these proportions are high, they deal only with the subject's relative future share of supply in these categories and do not imply a significant impact. A more important determinant of impact is to quantify demand for the location on its context as a major retailing area.
8. In terms of capture of retail sales dollars, the site would represent 17 percent of the available expenditures in the immediate 1.5-mile market area, three percent in the 3.0-mile area and two percent in the 5.0-mile area. By assuming the subject development works in combination with the Ralphs/Target Center and other retail



developments at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. This market area is probably the best representation of regional draw for the study site.

9. The Montgomery Specific Plan's retail market base has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail business present and/or expanding the geographic market area from which the retail district draws customers while maintaining a reasonably low vacancy rate. The draw and penetration of the retail district has been increasing faster than the growth in population and housing, and is expected to continue to do so.
10. Increased competitiveness can be expected to be greatest among the smaller older projects along Broadway, (such as the Small World Village and the center at 1068-1082 Broadway) poorly planned centers, (such as the Naples Center), and some of the industrial/business centers which allow non-conforming uses. The Naples Center at 1111 Broadway, is a prime example of a poorly planned center because it attracted a dysfunctional combination of tenant types originally and more recently has added 6,000 square feet of retail space directly blocking street visibility of the current tenants.
11. If future vacancies in the defined market area do occur, the causes of the eventual losses or impacts would relate to existing problems such as poor design and leasing strategies, and secondary locations in relation to existing or planned retail centers other than the Palomar Trolley Center. These causes are an active part of any retail market and represent a continual natural process whereby the market responds to consumer preferences and the attempt of developers and businesses to meet consumer needs. These choices made by other developers/businesses will not be directly affected by the Palomar Trolley Center project, or be impacted from cumulative effects of the project.
12. In conclusion development of the Palomar Trolley Center would not lead to physical deterioration of existing retail facilities because of the reasons stated above in paragraphs six, eight, nine, ten and eleven.



## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY . . . . .	ii
LIST OF TABLES . . . . .	vii
LIST OF FIGURES . . . . .	viii
INTRODUCTION . . . . .	1
PURPOSE OF THE STUDY . . . . .	1
CLIENT . . . . .	2
METHODOLOGY . . . . .	2
REPORT ORGANIZATION . . . . .	7
SITE DESCRIPTION . . . . .	8
LOCATION AND DIMENSIONS . . . . .	8
DEVELOPMENT PLAN . . . . .	8
LAND USE CHARACTERISTICS . . . . .	8
MARKET AREA DESCRIPTION . . . . .	12
MARKET AREA DETERMINANTS . . . . .	12
TRAFFIC PATTERNS AND VOLUMES . . . . .	13
DEMOGRAPHIC PROFILE . . . . .	16
RETAIL EXPENDITURE POTENTIAL . . . . .	16
EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL . . . . .	19
IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESS/FACILITIES . . . . .	21



TABLE OF CONTENTS  
(continued)

	<u>Page</u>
ANALYSIS OF EXISTING RETAIL BASE . . . . .	21
PLANNED RETAIL DEVELOPMENTS . . . . .	24
STUDY SITE SALES ESTIMATE . . . . .	24
MARKET IMPACT . . . . .	26
EXISTING COMPETITIVE CONDITIONS . . . . .	31
MARKET IMPACT CONCLUSIONS . . . . .	34
APPENDIX A . . . . .	38



LIST OF TABLES

<u>Tables</u>		<u>Page</u>
1	RETAIL EXPENDITURE POTENTIAL 1988 . . . . .	17
2	RETAIL EXPENDITURE POTENTIAL 1991 . . . . .	18
3	ESTIMATED SQUARE FOOTAGE OF RETAIL SPACE BY TYPE OF BUSINESS . . . . .	23
4	SUBJECT PROJECT POTENTIAL SALES SUPERMARKET/DRUG STORE CENTER . . . . .	25
5	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA . . . . .	27
6	MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE . . . . .	30
A-1	AVERAGE DAILY TRAFFIC VOLUMES . . . . .	39
A-2	MARKET AREA POPULATION AND HOUSING ESTIMATES . . . . .	40
A-3	MARKET AREA HOUSEHOLD INCOME ESTIMATION . . . . .	41
A-4	MARKET AREA EMPLOYMENT BASE . . . . .	43
A-5	MARKET AREA INDUSTRIAL EMPLOYMENT BASE AND RETAIL SUPPORT PROJECTIONS . . . . .	44
A-6	EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS . . . . .	45
A-7	PLANNED OR UNDER CONSTRUCTION RETAIL DEVELOPMENTS . . . . .	54
A-8	MONTGOMERY SPECIFIC PLAN RETAIL SPACE . . . . .	56



LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	MONTGOMERY SPECIFIC PLAN FIELD SURVEY . . . . .	4
2	SITE LOCATION WITHIN CHULA VISTA . . . . .	9
3	SUBJECT SITE FOOTPRINT . . . . .	10
4	TRAFFIC DISTRIBUTION FOR PROPOSED PROJECT . . . . .	14
A-1	MARKET AREA BOUNDARIES . . . . .	42
A-2	LOCATION OF EXISTING MAJOR RETAIL CENTERS . . . . .	53



## INTRODUCTION

This report represents the findings of a socioeconomic analysis of the possible market impacts from planned development of Palomar Trolley Center. The study was prepared as an update to an original study conducted in January of 1988 and included in draft and final Environmental Impacts Reports and candidate CEQA findings for Case No. EIR 89-4M, for the City of Chula Vista.

### PURPOSE OF THE STUDY

The primary purpose of this study is to evaluate current market conditions and identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the subject property. Of primary concern are retail centers located along Broadway and Third Avenue; however, all potentially impacted retail centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis.

This study is not intended to represent a feasibility analysis for the subject development. Concluding that a certain type of retail space should not be represented in the center due to possible oversupply would constitute a feasibility determination, and would also invalidate the original purpose of the study which

is to identify impacts to other businesses and facilities resulting from development of the subject site.

#### **CLIENT**

This study was performed by CIC Research, Inc., as subconsultant to A.D. Hinshaw Associates (ADHA), for the City of Chula Vista. The analysis and interpretation of study conclusions, however, represent the independent findings of CIC Research, Inc. Therefore, any or all study conclusions may not necessarily be shared by the client.

#### **METHODOLOGY**

Data collection tasks in this study included both primary and secondary approaches. The primary data gathering consisted of a detailed field survey conducted on September fifth, sixth and seventh of 1989 of retail businesses and centers in the vicinity of the Montgomery Specific Plan area. For an establishment to be included in the survey it must first resemble a retail business, such as a market, drugstore, clothes store, restaurant or other establishment supplying commodities or services. Secondly, it can be located in the mercantile and office commercial or heavy commercial areas as dictated by the January 1988, Montgomery Specific Plan Diagram prepared by the City of Chula Vista, Advanced Planning Division. The final condition for an establishment to be included is it can be located in an industrial park which allows retail uses permitted by a conditional use permit and possess a retail business license with the City of Chula Vista. The City of

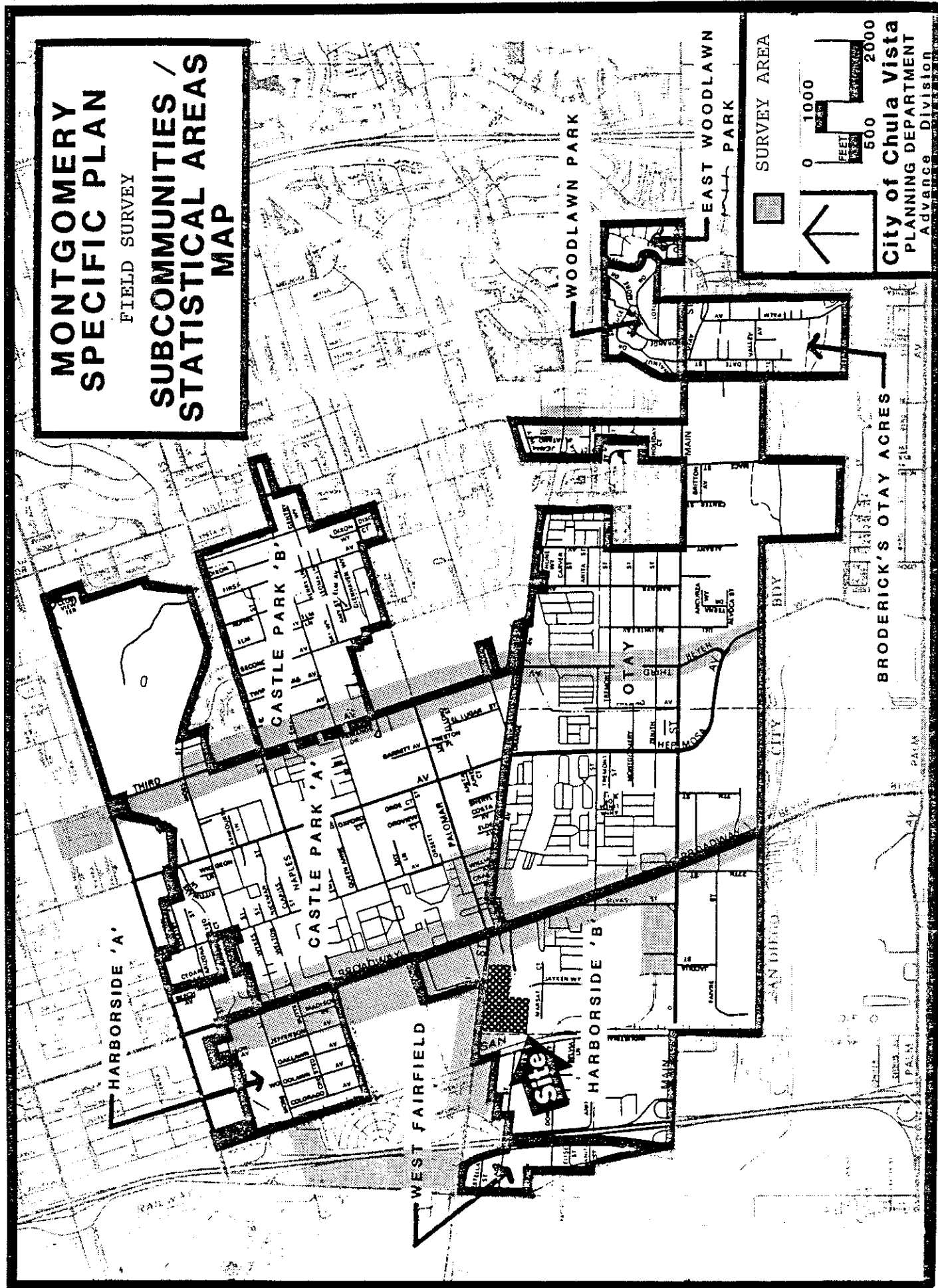
Chula Vista, Planning Department assisted CIC Research in identifying which industrial parks had CUPs that allow retail uses and determined all retail business licenses issued in the identified parks.

The main purpose of the field survey was to identify all retail businesses in the Montgomery Specific Plan area and to conduct an on-site estimate of gross square footage. The retail businesses identified from the field survey were grouped into State Board of Equalization categories by types of business. The projects were categorized to allow comparison to consumer demand estimates generated by National Decision Systems. The resulting data, providing both supply and demand estimates, were then analyzed in relation to the additional retail space expected from the subject development.

The above mentioned field survey area is graphically represented in Figure 1. The black outlined area represents the Montgomery Specific Plan Area (M.S.P.) and the shaded portion of the map represents where retail projects were surveyed. As noted from the shaded area, not all surveyed areas were within the M.S.P. boundaries. Along both sides of Broadway, CIC began surveying retail establishments at Arizona Street and continued south. Even though the M.S.P. boundaries do not include the area between Naples Street and Oxford Street on the west side of Broadway, CIC included this area's retail projects (Price Club, Price Bazaar, Levitz, Home Club, and Silo) because of the retail nature and central location within the retail business district of M.S.P. The field survey



Figure 1



continued south past Main Street along Broadway to the Otay River, which forms the southern boundary of the M.S.P. area.

The area between the subcommunities of Harborside "A" and West Fairfield/Harborside "B" in M.S.P. as depicted on Figure 1 was also included in the survey. Only legal retail business within industrial parks and freestanding in the above mentioned area were included. Even though this area is not within the boundaries of M.S.P. it was included in the survey because it is surrounded by the M.S.P. community, located near the study site and legal retail uses were identified in this area.

Third Street also represents one of the major retail areas within the Montgomery Specific Plan area. The survey included one center, which is located at 880 Third Avenue just north of "L" Street. This center (Vons) was included even though it is outside of the M.S.P. boundaries because the tenant mix would be competitive to the proposed project and its across the street from the M.S.P. boundaries. The retail survey included all retail centers and freestanding buildings on both sides of Third Street within the boundaries of M.S.P. from "L" Street to the Otay River.

Adjacent to Main Street, there are businesses that have the physical characteristics of a retail establishment, but are designated for research and limited industrial land uses. Due to the current land use designation, CIC did not further investigate each business on Main Street to determine its actual classification. Therefore no businesses in industrial zones along Main Street were included in this retail survey. However retail

businesses that were located in areas designated for heavy commercial along Main Street were included.

The Lincoln South City Business Center was excluded due to incomparable zoning (M-52). Within the Palomar Commerce Center and Bayview Business Center there are some buildings which allow retail business due to a CUP. Within these buildings all tenants which have a retail business license (as determined by the City of Chula Vista) were included in the survey. The American Design Center building on Industrial Boulevard was also included because of a CUP which allows retail uses. The eastern portion of Sommerset Plaza was excluded as retail space because it is zoned for industrial space with a CUP that allows retail uses, however the center currently has no tenants with a retail business license (as determined by the City of Chula Vista).

Also, office uses within the mercantile and office commercial area were included only if located within an identified retail center. Office tenants include; financial services, medical offices, insurance companies, etc. These uses were surveyed because of the potential for the subject project to include such office uses within its tenant mix. However no pure office buildings were included in the survey.

Recently finished retail projects which were completely vacant as of the September field survey were included in the data tables as vacant, even though the listing broker might have indicated some preleasing activity. These projects were designated as vacant because of the difficulty in verifying square footages, tenant types and actual future occupancy.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory (October 1987), Chula Vista Zoning Ordinance, Traffic Analysis for Land Use Zoning Chart, Palomar Trolley Center (Willdan Associations, October 1988), and Sandag Series VII demographic forecasts.

#### **REPORT ORGANIZATION**

The report is organized into five sections. Following the introduction is a description of the site related to development plan and land use characteristics. The third section defines the market area of the center and describes the total potential retail sales available from this area. In the fourth section, market shares are estimated. In the final chapter potentially impacted types of businesses/centers are identified and the degree of future competition or impact is estimated. An appendix in the back of the report includes supporting tables referred to in the text.



## SITE DESCRIPTION

### LOCATION AND DIMENSIONS

The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. Figure 2 illustrates the location of the site in the southwestern portion of the city. The site entails 12.23 acres with 128,387 square feet planned for development, resulting in a coverage ratio of 24 percent (see Figure 3).

### DEVELOPMENT PLAN

The 128,387 gross square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 square feet. In-line shops would occupy 10,200 square feet, and the five pads would provide 15,335 square feet of space.

### LAND USE CHARACTERISTICS

Development of the study site as proposed would increase the importance of the Palomar/Broadway commercial node as a shopping district. Interaction with existing retail uses at the Ralphs/

Figure 2  
 SITE LOCATION WITHIN  
 CHULA VISTA

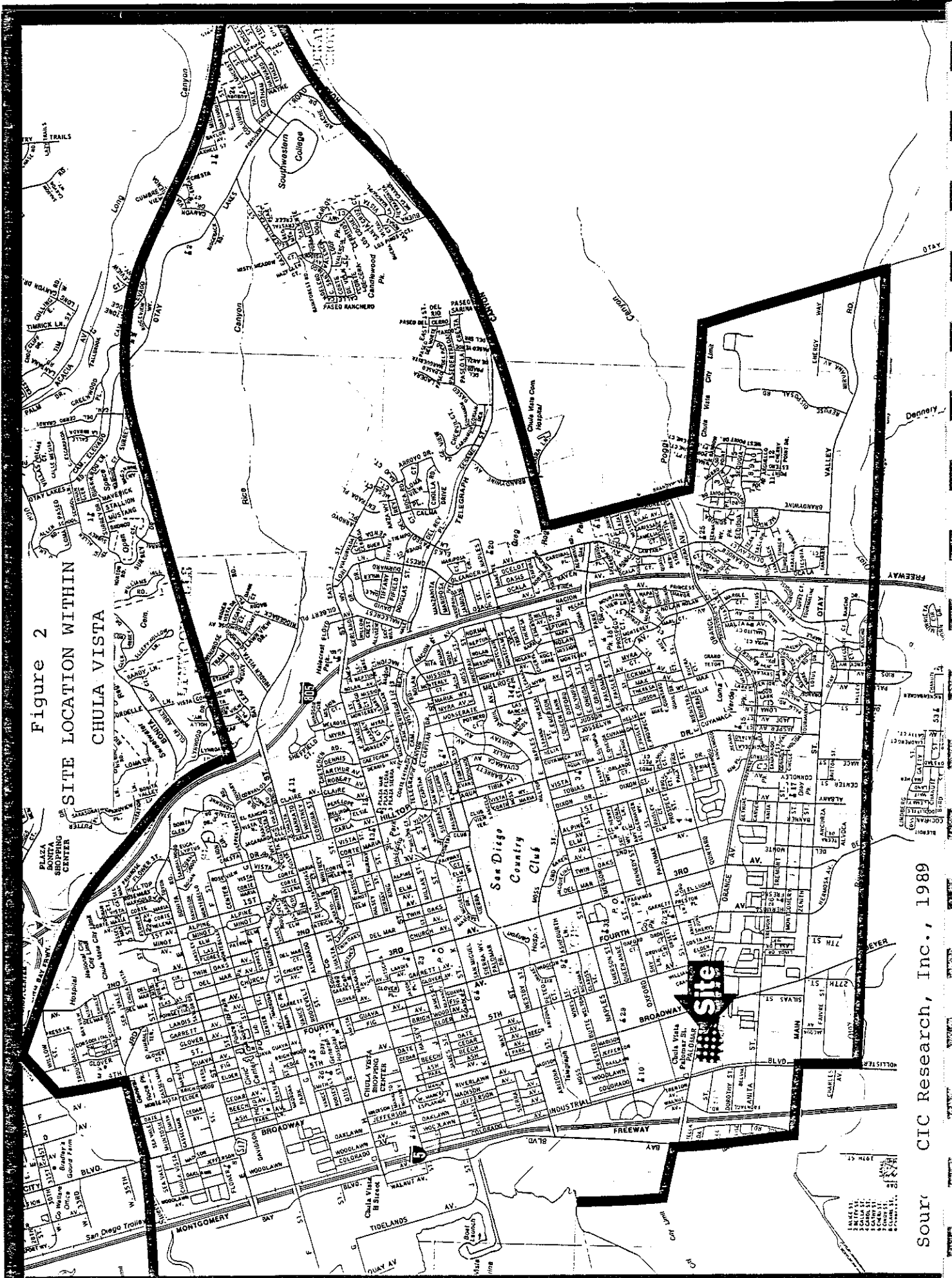
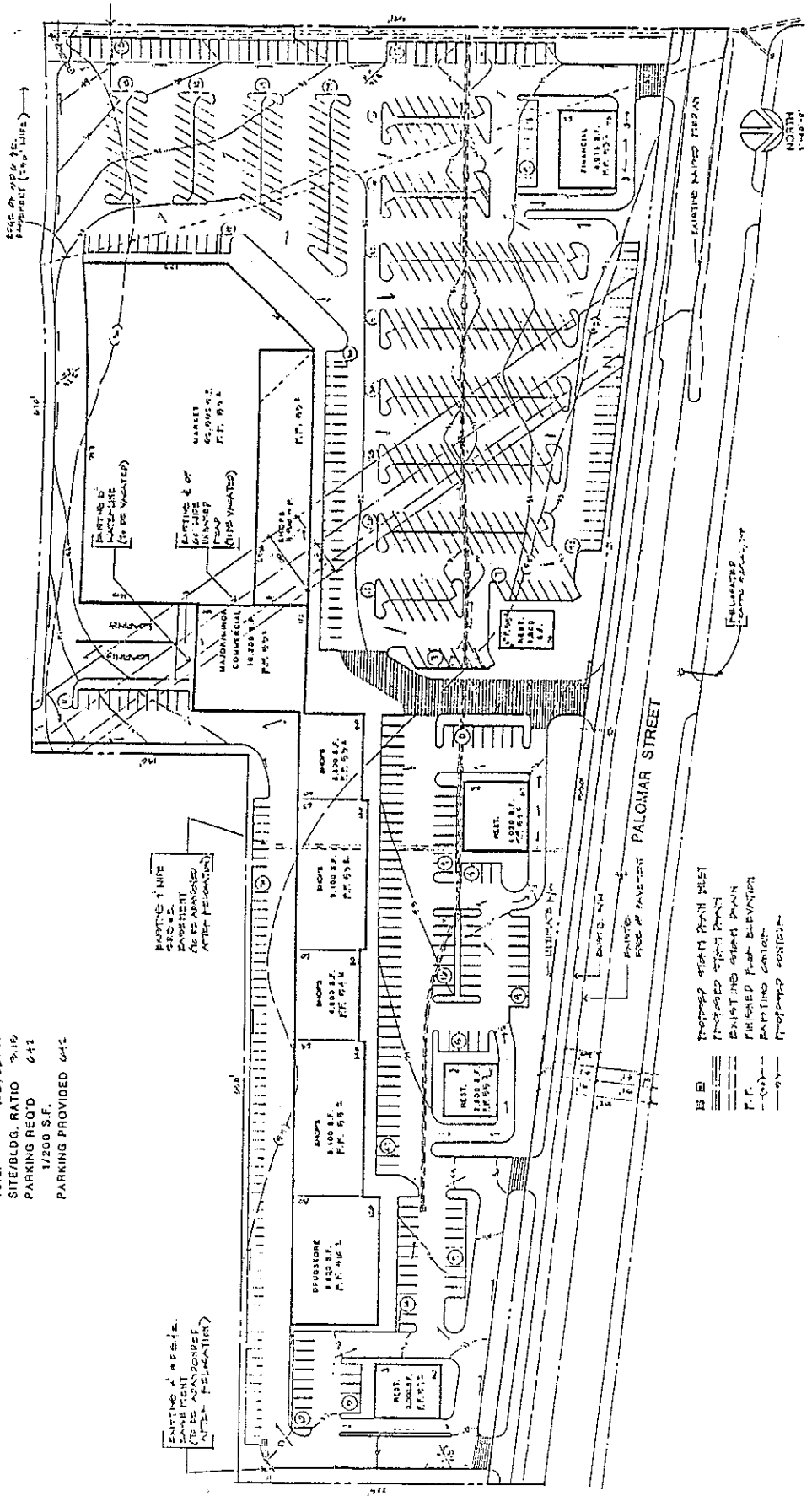


Figure 3  
SUBJECT SITE FOOTPRINT

**RESUME**

SITE AREA	957,120 sq. ft.
BLOG. AREA	52,895 sq. ft.
Market	14,240 sq. ft.
Comm.	52,700 sq. ft.
Shops/Drugs	15,135 sq. ft.
Pads	12,815 sq. ft.
Total	105,025 sq. ft.
SITE/BLOG. RATIO	2.16
PARKING REQ'D	642
PARKING PROVIDED	642



Source: Brown Leary Architecture and Planning

Target center (225,900 square feet), together with retail projects along Broadway will create a complementary relationship from which the subject site may benefit. The current 28,200 average daily trips (ADT) passing the site would also support retail businesses, and, unlike other centers in the immediate area, the center is elongated as it fronts on Palomar Street, providing a high degree of visibility to the project.





## MARKET AREA DESCRIPTION

This chapter will examine the demographic profile of the market area, which will include historical data as well as projections of population and housing units. Also traffic volumes, prepared by San Diego Association of Governments and traffic patterns determined by Willdan Associates will be presented. The last section of this chapter details retail expenditure potential for residential and employment support.

### MARKET AREA DETERMINANTS

In determining the trade area and the market impact area, CIC evaluated the proposed development plan, locations of competitive retail space in relation to the study site and traffic patterns to the site and traffic volumes in the vicinity of the study site.

The proposed development would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area would extend the trade area to a 3.0 mile radius. On the other hand, community centers which range in size from 100,000 to 300,000

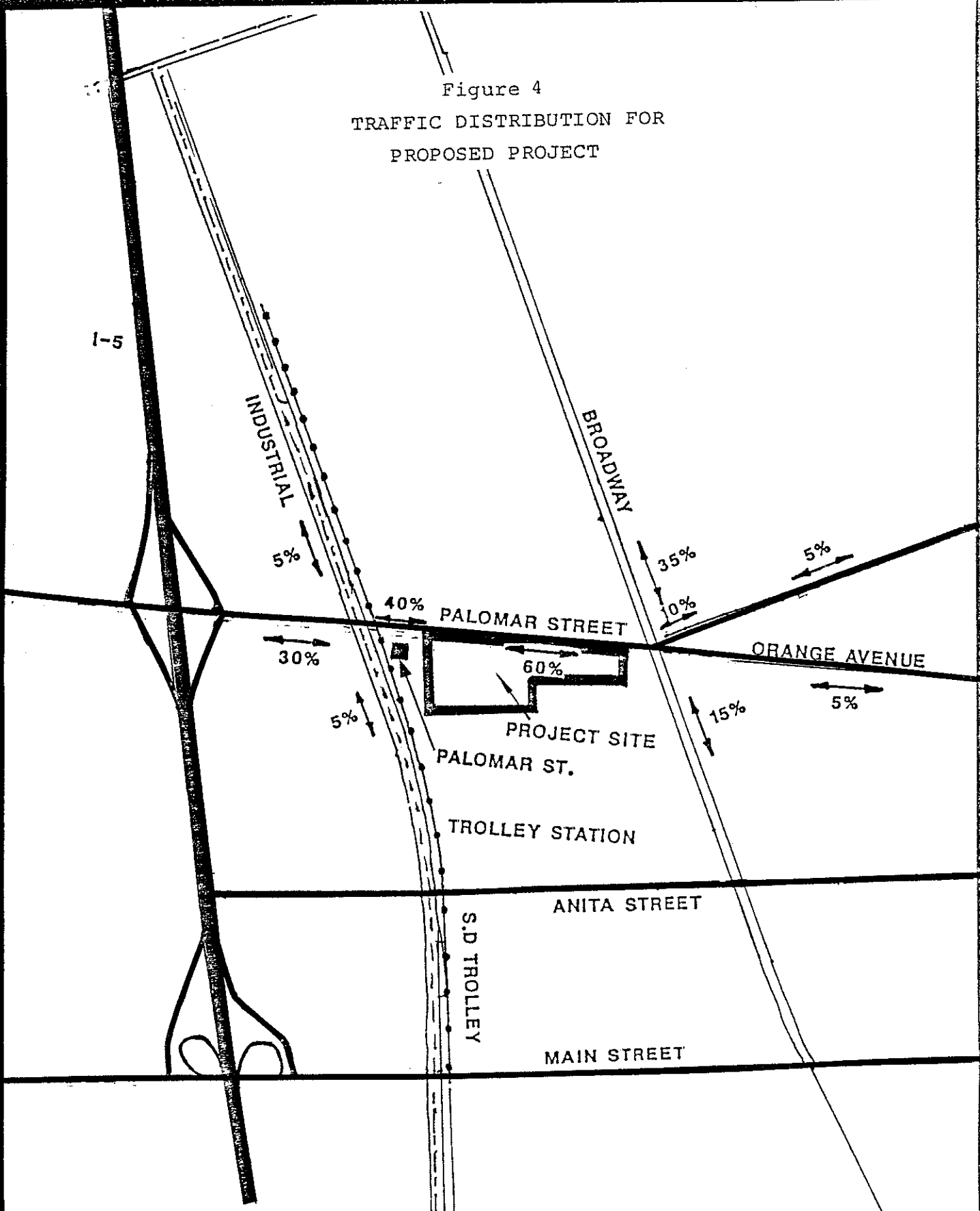
square feet with a site area of 10 to 30 acres have a primary trade area that can extend three to five miles and a secondary trade area that can extend seven to ten miles from the site. Given the above trade area statistics and the large amount of nearby large retail facilities, the Palomar Trolley Center market area is expected to draw support from a customer base of approximately three miles.

A determinant of the market impact area is the location of competitive retail space in relation to the proposed development. In conducting the field survey of all existing and proposed retail business, CIC determined the major market impact area which has the potential to be physically impacted due to an oversupply of retail space caused by development of the subject property. This area primarily includes, Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

#### **TRAFFIC PATTERNS AND VOLUMES**

Traffic distribution for the proposed project (see Figure 4) was determined by Willdan Associates and confirmed by JHK & Associates. As noted in the figure, the major traffic routes to the site include Broadway from the north and Palomar from the west via Interstate 5. This would indicate that retail developments along these two routes will have higher potential to be impacted both positively and negatively by the proposed development. Interstate 5 travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. Therefore based on confirmed traffic

Figure 4  
TRAFFIC DISTRIBUTION FOR  
PROPOSED PROJECT



Source: Willdan Associates  
Note: MAP NOT DRAWN TO SCALE

patterns, retail developments on Broadway would represent the primary market impact area.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exists are presented in Table A-1 in the Appendix at the back of this report. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

During the period from 1987 to 1988, Broadway between Palomar Street and Main Street has experienced the highest percent change (20.5%) in traffic volumes. These patterns indicate the southern portion of Broadway is fast gaining recognition in terms of business activities, when compared to the northern sections ("L" Street to Palomar) which experienced a decrease in traffic volumes ranging from -3.9 percent to -17.3 percent from 1987 to 1988.

In 1988, no new traffic counts were recorded by San Diego Association of Governments for Third Avenue. However, historical trends from 1983 to 1987, indicate the southern section of Third Street from Palomar to Main Street have experienced greater percent changes compared to the northern section (Palomar to "L" Street).

The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1988 ADT volumes ranging from 18,800 to 24,900 as compared to Third Avenue which ranges from 14,600 to 21,600 (1987 ADT volume). Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

## DEMOGRAPHIC PROFILE

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Tables A-2 and A-3 in the back of the report). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway (refer to Figure A-1). A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within 1.5 miles of the site the population is projected to grow at .1 percent per year (see Table A-2) from 30,258 in 1988 to 30,350 in 1991. The 3.0-mile radius is projected to grow at 1.6 percent per year from 164,919 to 172,982 during the same period. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table A-3. The 1.5-mile radius has the lowest average household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). The income level of a trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

## RETAIL EXPENDITURE POTENTIAL

Retail expenditures by State Board of Equalization (SBE) for the four trade areas are presented in Tables 1 and 2 for 1988 and 1991. The projected 1991 retail expenditure data were derived by

Table 1  
 RETAIL EXPENDITURE POTENTIAL  
 1988  
 (Values in Thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Apparel	\$ 7,864	\$ 42,279	\$ 63,657	\$145,467
General Merchandise	26,970	128,644	193,423	450,831
Drug Store	6,421	30,078	45,214	105,721
Food Store	38,916	192,317	289,283	670,186
Eating & Drinking Places	17,283	85,179	128,122	296,957
Furniture, Furnishings & Appliances	7,850	45,637	68,769	155,296
Building Materials & Farm Implements	7,892	40,764	61,348	141,091
Auto Dealers & supplies	29,008	150,580	226,631	520,791
Service Stations	15,500	78,485	118,091	272,475
Other Retail Stores	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
 Total Retail	 <u>\$172,531</u>	 <u>\$887,239</u>	 <u>\$1,335,200</u>	 <u>\$3,072,930</u>

REPRESENTED IN 1988 DOLLARS

Source: CIC Research, Inc., 1989  
 National Decision Systems

Table 2  
 RETAIL EXPENDITURE POTENTIAL  
 1991\*  
 (Values in Thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Apparel	\$ 7,899	\$ 44,439	\$ 67,742	\$154,997
General Merchandise	27,091	135,216	205,835	480,366
Drug Store	6,450	31,615	48,115	112,647
Food Store	39,091	202,142	307,847	714,092
Eating & Drinking Places	17,361	89,531	136,344	316,411
Furniture, Furnishings & Appliances	7,885	47,969	73,182	165,470
Building Materials & Farm Implements	7,927	42,847	65,285	150,334
Auto Dealers & supplies	29,138	158,273	241,174	554,909
Service Stations	15,570	82,495	125,669	290,326
Other Retail Stores	<u>14,894</u>	<u>98,041</u>	<u>149,688</u>	<u>334,694</u>
 Total Retail	 <u>\$173,306</u>	 <u>\$932,567</u>	 <u>\$1,420,881</u>	 <u>\$3,274,246</u>

\*REPRESENTED IN 1988 DOLLARS

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Source: CIC Research, Inc., 1989  
 National Decision Systems

utilizing the percent change in households from 1988 to 1991 for corresponding trade areas to inflate the 1988 expenditure data. Potential expenditures (1988) were estimated by National Decision Systems (NDS) using statistical projections based on the Census of Retail Trade. Retail expenditures are relative to the number of household's, income levels, and retail establishments within the given market area.

Potential expenditures for food stores (1991) represent the largest proportion of total retail sales within each category, approximately 22.6, 21.7, 21.7, and 21.8 percent for the 1.5, 3.0, 5.0, and 10.0 mile areas, respectively (see Table 2). The discrepancies are due to the variance in household incomes between the four categories as explained in the previous section. On the other hand, potential expenditures for the "other retail" category are proportionately lower for the 1.5-mile radius (8.6%), compared to the 3.0-mile radius (10.5%), 5.0-mile radius (10.5%), and the 10.0-mile radius (10.2%). These trends are indications of the lower disposable incomes for the residents of the 1.5-mile radius.

#### **EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL**

Given the large amount of industrially zoned land within the trade area, an estimation of the employment base retail expenditure potential was performed. CIC determined the total occupied square feet of industrial space within the market area (see Table A-4) by



utilizing area brokers and the Guide to Industrial/R&D Space 1987-1988.<sup>1</sup> An estimate of employment was calculated using a ratio of three employees per 1,000 square feet of industrial space. A total of 5,212 employees were estimated to work within the defined market area. This estimate is considered to be conservative, since owner occupied buildings were excluded due to lack of information sources.

These 5,212 employees currently support a major portion of 101,426 square feet of retail space within the market area (see Table A-5). Employment base-supported retail space was generally identified as eating and drinking establishments or convenience centers located adjacent to an industrial area. An estimated additional 1,472 square feet of retail space will be supported annually from 1989 to 2010 by the local employment base.

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<sup>1</sup>CIC Research, Inc., 1987.



## IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESS/FACILITIES

In this section, the market analysis and determination of potential impacts to businesses and facilities are described. Market impacts and capture rates are estimated on the basis of square footage, number of outlets, and dollar volumes of sales.

### ANALYSIS OF EXISTING RETAIL BASE

A field survey conducted by CIC Research identified retail projects within or adjacent to the Montgomery Specific Plan (M.S.P.) area. The principal retailing areas are found along Broadway and Third Avenue. All retail centers (two or more retail units connected) identified within the defined market area are described in terms of tenant types, square footage, address/location and occupancies in Table A-6 and the larger centers are located in Figure A-2. Also included within the table are freestanding retail buildings grouped together by street blocks.

Two community shopping centers were identified, Price Club Center and the Ralphs/Target Center. These centers create a large market area, which draws customers from much further than the M.S.P. boundaries. The subject center would receive some benefit from being located near these community centers, since many shoppers would pass by the site. Other projects such as Palomar

Village, Trolley Square and Palomar Square currently attract support from the nearby community centers.

Of the 1,860,716 square feet of retail space surveyed, 1,626,210 square feet is occupied by retail tenants/owners. The difference is accounted for by 91,799 square feet in office uses located within surveyed retail centers and 142,707 square feet of vacant space (7.7% vacancy). Three recently completed retail centers account for the majority of vacant space. The subject project would add 128,387 square feet or 6.9 percent to the current base of occupied and vacant retail and office space. The discrepancies in sample size between the original survey conducted in December of 1988 and the more recent (September 1989) survey are primarily due to new development becoming available such as, Sommerset Plaza West, and Music Mart Plaza.

Described in Table 3 are estimates of square footage of retail space by type of business (State Board of Equalization retail categories) and market base support (residential and employment). Approximately 95 percent of the retail outlets surveyed were estimated to be supported by the residential population. The remaining five percent were estimated to be supported by local employees, and include convenience food stores and eating and drinking places located in the vicinity of industrial developments. A total of 414 establishments were identified. The largest number of outlets were found in the retail service category (84) and the greatest square footage is in the general merchandise group (387,950 square feet).

Table 3  
ESTIMATED SQUARE FOOTAGE OF  
RETAIL SPACE BY TYPE OF BUSINESS

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	74,055	31	---	---	74,055	31
General merchandise	387,950	8	---	---	387,950	8
Drug stores	43,150	4	---	---	43,150	4
Food stores	188,051	28	24,242	11	212,293	39
Packaged liquor	11,940	5	---	---	11,940	5
Eating and drinking places	146,850	55	66,492	26	213,342	81
Home furnishings and appliances	204,860	39	---	---	204,860	39
Building materials and farm implements	153,498	5	---	---	153,498	5
Auto supplies/dealers	28,487	14	---	---	28,487	14
Service stations	14,600	6	---	---	14,600	6
Other retail stores	<u>128,189</u>	<u>60</u>	---	---	<u>128,189</u>	<u>60</u>
<b>Retail store total</b>	<b>1,381,630</b>	<b>255</b>	<b>90,734</b>	<b>37</b>	<b>1,472,364</b>	<b>292</b>
Business and Personal Retail Services	<u>150,502</u>	<u>82</u>	<u>3,344</u>	<u>2</u>	<u>153,846</u>	<u>84</u>
<b>Total</b>	<b><u>1,532,132</u></b>	<b><u>337</u></b>	<b><u>94,078</u></b>	<b><u>39</u></b>	<b><u>1,626,210</u></b>	<b><u>376</u></b>
Office Space within retail centers	<u>91,799</u>	<u>38</u>	---	---	<u>91,799</u>	<u>38</u>
<b>Total Space Surveyed</b>	<b>1,623,931</b>	<b>375</b>	<b>94,078</b>	<b>39</b>	<b>1,718,009</b>	<b>414</b>

Source: CIC Research, Inc., September 1989

#### **PLANNED RETAIL DEVELOPMENTS**

CIC identified seven planned retail developments within the defined market area during the September 1989 field survey (refer to Table A-7). The projects include: Price Club Center addition, Broadway Auto Plaza, Hermosa Plaza, Genisis Square, a 22,000 square foot project on Broadway, Naples Center addition, and two retail pads at Palomar Village for a total of 94,150 square feet. These projects represent convenience type retail or spin-off uses drawing from the customer base generated by the larger community centers and from residents in the immediate market area.

#### **STUDY SITE SALES ESTIMATE**

It is not the purpose of this report to determine the feasibility or tenant mix for the site. However, to estimate potential market impact, CIC determined typical tenants which would occupy space at the proposed neighborhood retail center. Table 4 presents a square footage and sales distribution (1988 dollars) for a supermarket/drug store concept. Estimated sales per square foot ratios were developed from the Urban Land Institute's "Dollars and Cents of Shopping Centers" and represent medians; however, sales levels could exceed these amounts. Potential annual gross sales for the subject project are estimated at \$30,133,000. The primary revenue sources are the proposed food store (\$19,516,000 annually) followed by the drug store (\$1,719,000 annually).

Table 4  
 SUBJECT PROJECT POTENTIAL SALES  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 Dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	10,200	100.52	1,025
Drug stores	9,600	174.09	1,719
Food stores supermarket	52,552	371.37	19,516
Eating & drinking places			
fast food	4,300	179.11	770
restaurant	<u>7,020</u>	143.72	<u>1,009</u>
	11,320		1,779
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>30,700</u>	155.33	<u>4,769</u>
	32,700		5,010
Business and personal retail services			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,015	N/A	N/A
<b>Total</b>	<u><u>128,387</u></u>		<u><u>\$30,133</u></u>

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Source: CIC Research, Inc., 1989  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

## MARKET IMPACT

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 5 presents a comparison of the existing square footages and outlets surveyed in the Montgomery Specific Plan area with the subject project. Overall, the project would represent seven percent of the existing total retail square footage surveyed and six percent of the existing total retail outlets surveyed. The proposed office tenant (financial center) would represent four percent of the existing office space within retail centers and three percent of the existing office outlets. See Table A-8 for a detailed description of all space surveyed by retail category. Assuming the seven known planned/under construction centers (94,150 square feet) are fully occupied, the study site proportion would equal 7.1 percent of the total square footage of existing/occupied and planned centers.

Proposed retail uses for the Palomar Trolley Center, which include the retail categories of drug store, food store and other retail stores represent the higher proportions of the area retail space compared to other categories. The proposed drug store represents 22 percent of the area retail space (square footage), as well as 25 percent of the area retail outlets.

The proposed food store would also represent a high proportion (25%) of the area retail space. In terms of the proportion of area retail outlets, the proposed food store represents only three percent of the total 39 food store outlets. The proposed food

Table 5  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA

	Existing Occupied Retail Space		Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	74,055	31	6,000	1	8%	3%
General merchandise	387,950	8	10,200	1	3	13
Drug stores	43,150	4	9,600	1	22	25
Food stores	212,293	39	52,552	1	25	3
Packaged liquor	11,940	5	---	---	0	0
Eating and drinking places	213,342	81	11,320	4	5	5
Furniture, furnishings and appliances	204,860	39	---	---	0	0
Building materials and farm implements	153,498	5	---	---	0	0
Auto supplies/dealers	28,487	14	---	---	0	0
Service stations	14,600	6	---	---	0	0
Other retail stores	128,189	60	32,700	16	26	27
<b>Retail Store Total</b>	<b>1,472,364</b>	<b>292</b>	<b>122,372</b>	<b>24</b>	<b>8%</b>	<b>8%</b>
Business and Personal Retail Service	153,846	84	2,000	1	1	1
<b>Total</b>	<b>1,626,210</b>	<b>376</b>	<b>124,372</b>	<b>25</b>	<b>8%</b>	<b>7%</b>
Office space within retail centers	91,799	38	4,015	1	4	3
<b>Total Space Surveyed</b>	<b>1,718,009</b>	<b>414</b>	<b>128,387</b>	<b>26</b>	<b>7%</b>	<b>6%</b>

Source: CIC Research, Inc., September 1989



store would be one of five major food stores (over 20,000 square feet) and 35 other smaller food outlets.

The proposed retail uses which are classified into the "other retail store" category would represent a high proportion of area retail space (26%) as well as area outlets (27%). Since the "other retail store" category encompasses a wide range of retail uses, these high proportions should be reduced with proper tenant selection for the Palomar Trolley Center during the original lease-up effort.

Although the above mentioned proportions are high, they deal only with Palomar Trolley Center's relative future share of supply in these categories. The fact that these specific supply-side square footage proportions are so large (22% to 26%) in a retail district with over 1.6 million square feet of occupied retail space, actually agrees with the demand analysis (mentioned below). That is, if uses as common as food and drug stores are so scarce (considering the overall amount of space) as to show dramatic comparisons, then there is the concern that the area has been under-supplied in these categories. This supply analysis is mainly concerned with illustrating the relative proportions of each type of use, and the size of the center with respect to the total retail base. In this case, Palomar Trolley Center would represent seven percent of the area retail square footage and six percent of retail outlets. A more important determinant of impact is to quantify demand for the location on its context as a major retailing area, which is presented in the following paragraphs.

A third means of evaluating market impact is to estimate sales capture rates for the project at the estimated time it would open. Conclusions of this approach are presented in Table 6. At the bottom of the table, the total estimated sales from the subject project would represent 17 percent of the available expenditures in the immediate 1.5-mile market area, three percent in the 3.0-mile area, and two percent in the 5.0-mile area (see Figure A-1).

By assuming the subject development works in combination with the Ralphs/Target Center and other retail development at Palomar and Broadway by creating more synergy the market area would include a region of up to three to five miles from the site. The proportionate capture of total sales in the 3.0-mile market area is three percent. This market area is probably the best representation of regional draw for the study site considering the expected tenant types and proximity to the community-size shopping center.

Given the 3.0-mile market size, the food store would capture the largest share of retail expenditures, at a ten percent rate.<sup>2</sup> The drug store would represent the next largest addition to the market acquiring five percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market. These above mentioned demand-side proportions indicate far less real impact than would be indicated by using the supply analysis alone.

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<sup>2</sup>Retail developments outside the Montgomery Specific Plan area, but within three miles, were not considered in this part of the analysis as their market areas and capture rates would also need to be estimated. Given the limitations established by the scope of the study, the analysis represents a comparison only for retail establishments within the Montgomery Plan area.

Table 6  
 MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
 (1988 dollars, values in thousands)

	Estimated 1991 Retail Sales Trade Area Around Site		Palomar Trolley Center Projected Sales	Palomar Trolley Center Capture of Market Area Sales			
	1.5 Miles	3.0 Miles		5.0 Miles	1.5 Miles	3.0 Miles	5.0 Miles
Apparel	\$ 7,899	\$ 44,439	\$ 67,742	\$874	11%	2%	1%
General Merchandise	27,091	135,216	205,835	1,025	4	1	1
Drug Stores	6,450	31,615	48,115	1,719	27	5	4
Food Stores	39,091	202,142	307,847	19,516	50	10	6
Eating and Drinking Places	17,361	89,531	136,344	1,779	10	2	1
Furniture, Furnishings and Appliances	7,885	47,969	73,182	---	---	---	---
Building Materials and Farm Implements	7,927	42,847	65,285	---	---	---	---
Auto Dealers and Supplies	29,138	158,273	241,174	---	---	---	---
Service Stations	15,570	82,495	125,669	---	---	---	---
Other Retail Stores	14,894	98,041	149,688	5,010	34	5	3
Subtotal	\$173,306	\$932,567	\$1,420,881	\$29,923	17%	3%	2%
Business and Personal Retail Services	---	---	---	210	---	---	---
TOTAL	\$173,306	\$932,567	\$1,420,881	\$30,133	17%	3%	2%

Source: CIC Research, Inc., 1989  
 Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
 National Decision Systems

## EXISTING COMPETITIVE CONDITIONS

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, centers along Broadway. Several of these centers have incompatible tenant mixes and substantial vacancies. A prime example of a poorly planned center is the Naples Center, which attracted a dysfunctional combination of tenant types originally and more recently has added 6,000 square feet of space, directly blocking visibility to the previous tenants. The occupancy rate, which decreased from 51 percent in December of 1988 to 19 percent in September of 1989, indicates the failure of such retail centers can be correlated with mistakes or problems that are specific to those properties and not the direct results of competition.

For the above mentioned types of centers, it is assumed that land and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these centers to have high occupancy rates and average to high lease rates for the area in order to break even. Furthermore, development of the seven planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up (i.e., vacancies) of existing centers.

Existing centers that could be affected by both planned development and the subject project include the smaller older projects along Broadway and the poorly planned centers, primarily located along Broadway. Also, some of the industrial/business centers which allow non-conforming retail uses could also be affected.

Within any successful retail market, retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine proper tenant mixes which provide mutual support. In the above mentioned examples of retail centers with vacancy problems, previous leasing activity has accepted nearly any business that will sign a lease. Furthermore, building designs have maximized square footage at the cost of visibility from the street. Such haphazard leasing combinations and building designs can discourage future tenants from leasing in a particular center. Other better located and designed centers with a carefully selected tenant mix will continue to out-compete these centers for tenants.

The Palomar Trolley Center is well located and has indicated a carefully thought out leasing plan would be used. Even if lease rates are higher at the Palomar Trolley Center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway for all types of businesses except convenience outlets. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

The Montgomery Specific Plan's retail market base has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district draws customers while maintaining a reasonably low vacancy rate. In the case of diversification, synergy creates more activity among different outlets. By increasing the number of

outlets, the draw reaches further than previous boundaries. These conditions are illustrated by the historical situation provided when the Price Club and Target Center(s) were developed in 1979. This development increased retail square footage by at least 50%, or approximately six times the proportionate increase the subject development represents. However, construction of housing units was proceeding at roughly 1.2% to 2.6% per year at this time (refer to Table A-2).



## MARKET IMPACT CONCLUSIONS

As previously mentioned, the relative proportions of the market that the retail and office uses for the Palomar Trolley Center site are eight percent of the total 1.6 million square feet of occupied retail space (Table 5) and four percent of the 91,800 square feet of office space within retail centers (Table 5). In terms of market share capture the subject site represents 17 percent of the 1.5-mile area's potential sales, three percent of the 3.0-mile area, and two percent of the 5.0-mile area (Table 6, Figure A-1). If all market conditions remained the same the Palomar Trolley Center's potential capture of area retail expenditures (Table 6) could represent potential increases in the market area's retail vacancy rate. An additional three percent increase in the vacancy rate could occur, due to the center's potential to capture three percent of the total retail sales in the 3.0-mile market area (the determined market area for the site).

In reconciling both supply and demand conditions the above mentioned proportions do not imply a significant impact from development of Palomar Trolley Center. Particularly since Montgomery Specific Plan's retail district has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district

draws customers, while maintaining a reasonably low vacancy rate. These proportions would have insignificant socioeconomic impacts on the total retail market in Montgomery Specific Plan area, thus no physical deterioration to existing buildings or shopping centers is anticipated. However, future sales from the subject site will depend on competition with existing and planned retail outlets in the M.S.P. area, as well as other market areas, and not from growth of the local population or households.

Population growth within 1.5 and 3.0 miles of the site has reached near capacity in terms of residential base as indicated by the 0.1 and 1.6 percent annual change from 1988 to 1991 (Table A-2). Applying these projected growth rates to the current estimated 1,626,210 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 1,626 to 26,019 square feet of additional retail space can be supported annually (1988 to 1991) by the residential population. Also an estimated additional 1,472 square feet of retail space will be supported annually from 1989 to 2010 by the growth of the local employment base. In summary, population, housing, and employment growth are not requirements to support absorption of the Palomar Trolley Center. The draw and penetration of the retail district of Montgomery Specific Plan has been increasing faster than the growth in population and housing, and is expected to continue to do so.

Planned retail centers (not including the subject) would represent an additional 94,150 square feet over the next two years. Adding the subject project, a total of 222,537 square feet would be added, or a 6.5 percent annual increase in two years, above the



amount of existing occupied retail space. Of the planned developments, three projects comprising 49,720 square feet are currently (September 1989) available for preleasing and have preleased an estimated total 42 percent, according to listing brokers, indicating a continued demand for retail space. These planned projects represent convenience type retail or spin-off uses drawing from the expanded trade area generated by the larger community centers and from penetration from the existing trade area. As previously mentioned the Montgomery Specific Plan's retail base has been capable of absorbing large amounts of retail, space in the past by increasing the draw and penetration of the retail district.

Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments. If vacancies persist in other centers, they would relate to specific problems associated with poor design and leasing strategies of the centers. Also a poor location in relation to existing or planned retail centers could also cause vacancies. These factors are an active part of any retail market and represent a continual competitive process whereby the market responds to consumer preferences, and the attempt of developers and businesses to meet consumers' needs.

As previously discussed no significant adverse socioeconomic impacts are expected from development or operation of Palomar

Trolley Center. Consequently, no physical deterioration can be anticipated to existing buildings or shopping centers. Because no significant impacts have been identified, there are no mitigation measures to be associated with the project.



APPENDIX A

Table A-1  
AVERAGE DAILY TRAFFIC VOLUMES  
(in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>% Change 1987-1988</u>	<u>% Change 1983-1988</u>
<b>Broadway</b>								
L Street & Naples Street	18.6	18.6*	18.6*	23.2	25.9	24.9	-3.9	33.9
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	22.5	-17.3	18.4
Palomar Street & Main Street	12.8	12.8*	12.8*	16.4	15.6	18.8	20.5	60.2
<b>Industrial</b>								
Naples Street & Palomar Street	4.3	4.3*	3.9	5.6	5.3	5.0	-5.7	16.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	7.2	1.4	67.4
<b>Main Street</b>								
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	20.1*	0.0	37.7
<b>Orange Avenue</b>								
Melrose Avenue & Interstate 805	17.9	18.8	18.8*	18.8*	23.2	23.2*	0.0	29.6
<b>Otay Valley Road</b>								
Melrose Avenue & Interstate 805	14.0	14.0*	14.0*	14.9	18.9	18.9*	0.0	35.0
<b>Palomar Street</b>								
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4*	23.4*	29.7	29.7*	0.0	39.4
Industrial Blvd. & Broadway	22.0	22.0*	22.1	22.9	28.2	28.2*	0.0	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	13.9*	0.0	10.3
Fourth Avenue & Third Avenue	13.5	13.5*	13.5*	13.9	14.0	14.0*	0.0	3.7
Third Avenue & Hilltop Drive	11.6	11.6*	11.6*	12.1	12.4	12.4*	0.0	6.9
<b>Telegraph Canyon Road</b>								
L Street & Interstate 805	28.4	28.4*	28.4*	30.7	37.5	37.5*	0.0	32.0
<b>Third Avenue</b>								
L Street & Moss Street	19.0	22.0	22.7	22.7*	21.6	21.6*	0.0	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5*	21.1	21.1*	0.0	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7*	19.7*	19.6	19.6*	0.0	2.0
Palomar Street & Quintard St.	15.6	15.6*	15.6*	15.9	18.0*	18.0	0.0	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	14.6*	0.0	15.9

\*INDICATES NO NEW COUNT WAS TAKEN

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Source: San Diego Association of Governments  
CIC Research, Inc., 1989

Table A-2  
 MARKET AREA POPULATION AND HOUSING ESTIMATES

	<u>1980</u>	<u>1988</u> <u>Estimate</u>	<u>1991</u> <u>Estimate</u>	Annual Percentage Change	
				<u>1980-88</u>	<u>1988-91</u>
<u>Population:</u>					
1.5-mile distance	30,512	30,258	30,350	(0.1)%	0.1%
3.0-mile distance	144,540	164,919	172,982	1.7	1.6
5.0-mile distance	210,985	252,223	268,088	2.3	2.1
10.0-mile distance	514,576	606,458	641,183	2.1	1.9
<u>Housing Units:</u>					
1.5-mile distance	11,748	12,908	12,966	1.2%	0.1%
3.0-mile distance	48,416	57,449	60,384	2.2	1.7
5.0-mile distance	70,384	86,301	91,839	2.6	2.1
10.0-mile distance	166,511	203,670	217,013	2.6	2.1

Source: National Decision Systems

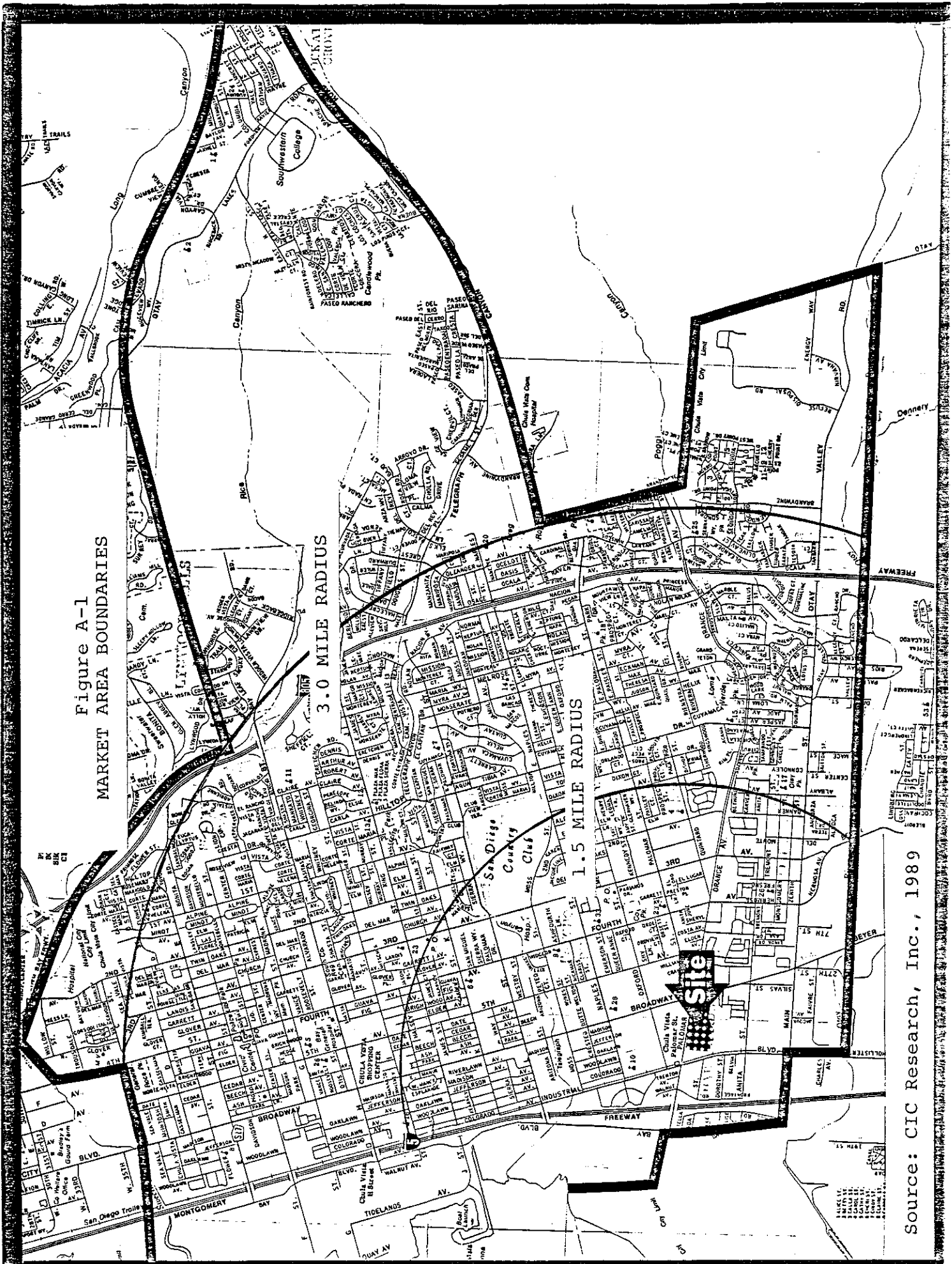
Table A-3  
MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile Distance</u>	<u>3.0 Mile Distance</u>	<u>5.0 Mile Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems

Figure A-1  
MARKET AREA BOUNDARIES



Source: CIC Research, Inc., 1989

Table A-4  
MARKET AREA\*  
EMPLOYMENT BASE

<u>Project</u>	<u>Address</u>	<u>Total Occupied Square Ft.</u>	<u>Est.# of Employees**</u>
Palomar Commerce Center	635-675 Palomar	78,000	234
Chula Vista Oxford Park	635 Oxford	30,000	90
Southrail Business Park	1547 Jayken St.	182,000	546
	690 Anita St.	18,000	54
South Bay Bus. Park	653 Anita St.	52,800	158
Rancho Anita Industrial	1616 Ind. Blvd.	97,390	292
	789 Anita St.	12,000	36
	803 Anita St.	10,000	30
	819 Anita St.	10,000	30
Brittania Bus. Center	675 Anita St.	105,600	317
South City Bus. Center	2260 Main St.	167,980	504
Bay View Commerce Ctr.	1021 Bay Blvd.	276,150	828
Bayside Business Park	1120 Bay Blvd.	75,891	228
	916 Ind. Blvd.	18,700	56
Glad Industrial Park	2446 Main St.	63,200	190
Norsouth Industrial Park	2252 Verus St.	48,691	146
Sky Trio Industrial Park	7020 Alamitos Avenue	19,712	59
Redlich Industrial Park	2540 Main St.	58,800	176
	2293 Verus St.	-0-	-0-
	2400 Main St.	162,600	488
Ratner Building	670 L St.	<u>250,000</u>	<u>750</u>
	<b>Total</b>	<b>1,737,514</b>	<b>5,212</b>

\*Market area includes industrial projects located along the Interstate 5 corridor from "L" Street to Main Street, within Chula Vista.

\*\*Estimated number of employees was calculated using a ratio of three employees per 1,000 square feet.

Source: CIC Research, Inc., September 1989



Table A-5  
 MARKET AREA INDUSTRIAL EMPLOYMENT  
 BASE AND RETAIL SUPPORT PROJECTIONS\*

	<u>1989</u>	<u>1995</u>	<u>2000</u>	<u>2010</u>	<u>Annual Percent Change</u>
Employees	5,212	5,750	5,978	6,801	1.3%
Retail space** supported by area industrial employees (sq.ft.)	101,426	111,895	116,332	132,347	1.3%

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\*Projections (growth rates) were based on SANDAG employment projections for Chula Vista.

\*\*Based on a field survey conducted by CIC Research, Inc., 1988.

Source: SANDAG, July 1988  
 CIC Research, Inc., 1989

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Palomar	Palomar Village/ 693 Palomar St.	clothes	5,900	77%
		hardware	4,700	
		appliance	14,200	
		computer	2,250	
		vacant	<u>8,272</u>	
			<u>35,322</u>	
Palomar	Trolley Square/ 651 Palomar St.	clothes	12,480	98
		restaurant	2,600	
		stereo	1,456	
		other	11,076	
		hair	780	
		vacant	<u>2,704</u>	
			<u>31,096</u>	
Palomar	Palomar Plaza 303-315 Palomar	restaurant	5,160	46
		vacant	<u>6,160</u>	
			<u>11,320</u>	
Palomar	Pacific Coast College 251 Palomar	fastfood	2,100	93
		auto	2,100	
		vacant	3,500	
		non-retail	<u>39,000</u>	
			<u>46,700</u>	
Palomar	251 Palomar	restaurant	4,500	80
		other	1,500	
		vacant	<u>1,500</u>	
			<u>7,500</u>	
Broadway	Main Center/ 1680 Broadway	boots	3,440	91
		rest./bar	18,200	
		other	720	
		vacant	3,120	
		non-retail	<u>9,260</u>	
			<u>34,740</u>	
Broadway	Sommerset Plaza West 1610-1660 Broadway	vacant	<u>52,626</u>	0
			<u>52,626</u>	
Broadway	Small World Village 1418 Broadway/deli	auto	400	100
		other	600	
		hair	400	
		non-retail	400	
			<u>1,800</u>	
			<u>3,600</u>	
Broadway	Palomar Square/ 1355 Broadway	food	1,000	80
		liquor	4,640	
		fast food	12,640	
		other	7,380	
		service	2,100	
		vacant	<u>6,990</u>	
			<u>34,750</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Broadway	Oxford Square 1215 Broadway	apparel	1,600	92%
		furniture	10,230	
		other	4,000	
		service	800	
		vacant	1,440	
			<u>18,070</u>	
Broadway	Ralphs Center/ 1210 Broadway	apparel	8,527	100
		target	105,625	
		general	27,475	
		food	55,250	
		fast food	12,900	
		stereo	10,647	
		auto	5,500	
			<u>225,924</u>	
Broadway	Music Mart Plaza/ 1181 Broadway	music	2,500	63
		service	3,750	
		vacant	3,750	
			<u>10,000</u>	
Broadway	Broadway Point/ 1177 Broadway	clothes	3,360	90
		food	952	
		fast food	5,600	
		furniture	3,360	
		auto	784	
		other	6,608	
		service	2,240	
		vacant	2,688	
		non-retail	2,072	
Broadway	Price Club/ 1144 Broadway	clothes	11,250	100
		price club	118,800	
		food	3,100	
		fast food	5,380	
		stereo	44,396	
		hardware	114,445	
		other	8,950	
		service	700	
Broadway	Naples Center/ 1111 Broadway	services	1,344	19
		vacant	16,548	
		non-retail	2,560	
			<u>20,452</u>	
Broadway	1100 Broadway	restaurant	7,000	100
		auto	6,000	
		vacant	3,000	
			<u>16,000</u>	
Broadway	1068-1082 Broadway	furniture	1,800	100
		hardware	3,600	
		auto	600	
		service	800	
			<u>6,800</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Broadway	1038-1044	service non-retail	1,000 <u>2,000</u> 3,000	100%
Broadway	Arch Plaza/ 1037 Broadway	food restaurant furniture service	760 1,600 2,000 <u>1,800</u> 6,160	100
Broadway	1010 Broadway	food other service vacant non-retail	2,580 3,460 1,932 2,580 <u>1,720</u> 12,272	79
Broadway	Cape Cod Center/ 985 Broadway	fast food T.V. service vacant non-retail	2,562 840 840 4,284 <u>2,688</u> 11,214	62
Broadway	Cal-Store Plaza/ 970 Broadway	sports vacant	17,325 <u>3,440</u> 20,765	83
Third	1592 Third	food non-retail	2,400 <u>3,200</u> 5,600	100
Third	Orange Plaza 1445-1447 Third	vacant	<u>12,000</u> 12,000	100
Third	Jeromes/ 1385 Third	furniture auto services	16,080 2,400 <u>1,500</u> 19,980	100
Third	Big Bear Center/ 1340 Third	clothes discount drug restaurant appliance hardware services	2,500 5,000 26,010 6,000 1,500 30,753 <u>7,000</u> 78,763	100
Third	1324 Third	other service	2,500 <u>5,000</u> 7,500	100

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	Castle Park/ 1315 Third	clothes	8,509	100%
		discount	8,188	
		drug	17,850	
		grocery	33,441	
		fast food	3,805	
		services	4,355	
		non-retail	<u>6,499</u>	
		<u>82,647</u>		
Third	Plaza Del Rey/ 1223 Third	liquor	1,800	94
		fast food	1,350	
		furniture	7,200	
		other	1,125	
		services	4,725	
		vacant	1,125	
		non-retail	<u>2,475</u>	
Third	Oxford South Center/ 1200 Third	drug	1,050	100
		grocery	3,850	
		fast food	4,750	
		T.V.	2,000	
		service	3,050	
		non-retail	<u>2,550</u>	
		<u>17,250</u>		
Third	Pacific Com. Bank/ 1180 Third	clothes	1,500	95
		drug	1,500	
		food	3,300	
		restaurant	6,600	
		appliance	1,800	
		other	9,600	
		service	1,500	
		vacant	1,500	
		non-retail	<u>4,500</u>	
Third	1120 Third	clothes	1,200	100
		fast food	4,250	
		stereo	1,600	
		service	<u>3,200</u>	
		<u>10,250</u>		
Third	Naples Plaza/ 1090 Third	food	4,200	100
		liquor	1,250	
		fast food	1,350	
		restaurant	5,175	
		stereo	1,800	
		other	4,175	
		service	5,625	
		non-retail	<u>3,625</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	1034 Third	clothes	2,000	100%
		liquor	2,000	
		fast food	3,400	
		appliance	1,000	
		auto	2,000	
		other	2,400	
		service	4,800	
		non-retail	<u>2,200</u>	
			19,800	
Third	1011-1029 Third	T.V.	1,600	100
		other	2,900	
		service	2,925	
		non-retail	<u>3,600</u>	
			11,025	
Third	914 Third	auto	1,000	100
		service	<u>400</u>	
			1,400	
Third	Longs/Vons Ctr./ 880 Third	drug	22,750	100
		food	23,420	
		fast food	1,020	
		furniture	900	
		other	680	
		service	<u>2,340</u>	
			51,110	
Main	2578 Main St.	Deli	2,000	100
		Fast Food	1,000	
		TV	<u>1,000</u>	
			4,000	
Main	2540 Main St.	Fast Food	1,600	100
		Printing	<u>1,600</u>	
			3,200	
Main	Glad Industrial Park 2488 Main St.	Clothing	5,589	N/A
		Auto	6,503	
		Other	4,295	
		Service	<u>3,185</u>	
			19,572	
Industrial	American Design Center 1008 Industrial Blvd.	Carpet	1,400	100
		Other	3,580	
		Service	<u>700</u>	
			5,680	
Bay	1085 Bay Blvd.	Food	3,280	N/A
		Other	<u>6,560</u>	
			9,840	

Table A-6  
 EXISTING RETAIL CENTERS AND BUSINESSES  
 MARKET CHARACTERISTICS  
 (continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Palomar	300-879	food	3,500	94%
		fast food	5,000	
		service	1,600	
		vacant	600	
			<u>10,700</u>	
Broadway	1700-1747	general	22,500	93
		food	10,500	
		other	1,680	
		service	9,180	
		vacant	<u>3,280</u>	
	<u>47,140</u>			
Broadway	1600-1643	auto	<u>2,500</u> 2,500	100
Broadway	1500-1550	food restaurant	750 <u>1,200</u> 1,950	100
Broadway	1430	auto	<u>5,000</u> 5,000	100%
Broadway	1300	food restaurant service	4,000 6,000 <u>1,000</u> 9,000	100
Broadway	1187-1193	restaurant toy	4,500 <u>7,200</u> 11,700	100
Broadway	1000-1088	food restaurant appliance service vacant	4,800 11,400 6,000 6,100 <u>1,600</u> 29,900	95
Broadway	900-986	restaurant service	4,400 <u>23,400</u> 27,800	100
Third	1600-1700	food restaurant service	4,200 5,250 <u>4,000</u> 13,450	100
Third	1562-1592	services	<u>6,800</u> 6,800	100
Third	1426-1450	food fast food furniture other	10,500 3,600 2,650 <u>2,000</u> 18,750	100

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	1300-1324	food	2,000	100
		fast food	7,700	
		service	1,200	
		non-retail	<u>2,500</u>	
			13,400	
Third	1200-1296	fast food	12,900	100
		furn./app.	6,750	
		gas	1,600	
		service	<u>1,800</u>	
			23,050	
Third	1103-1193	clothes	800	100
		restaurant	12,500	
		appliance	3,000	
		other	7,600	
		service	<u>7,750</u>	
	31,650			
Third	1000-1099	shoes	2,400	100
		K-mart	100,362	
		food	1,500	
		fast food	14,250	
		furniture	25,800	
		gas	2,000	
		other	1,600	
		service	2,900	
		non-retail	<u>800</u>	
			151,612	
Third	900-996	fast food	4,200	100
		auto	5,500	
		gas	2,000	
		other	<u>400</u>	
			12,100	
Quintard	315-317	clothes	3,000	100
		other	<u>1,600</u>	
			4,600	
Main	3189-3205	liquor	2,250	100
		gas	<u>3,000</u>	
			5,250	
Main	2620	Bar	<u>400</u>	100
			400	
Main	2514-2528	Market	3,600	100
		Food	2,500	
		Furniture	<u>7,200</u>	
			13,300	
Orange	531 +	food	3,000	100
		gas	4,000	
		auto	<u>3,600</u>	
			10,600	



Table A-6  
 EXISTING RETAIL CENTERS AND BUSINESSES  
 MARKET CHARACTERISTICS  
 (continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Beyer	130	gas	<u>2,000</u> 2,000	100
Bay	1031-1095	Furniture	<u>26,651</u> 26,651	100

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Source: CIC Research, Inc.

Figure A-2

LOCATION OF EXISTING  
MAJOR RETAIL CENTERS

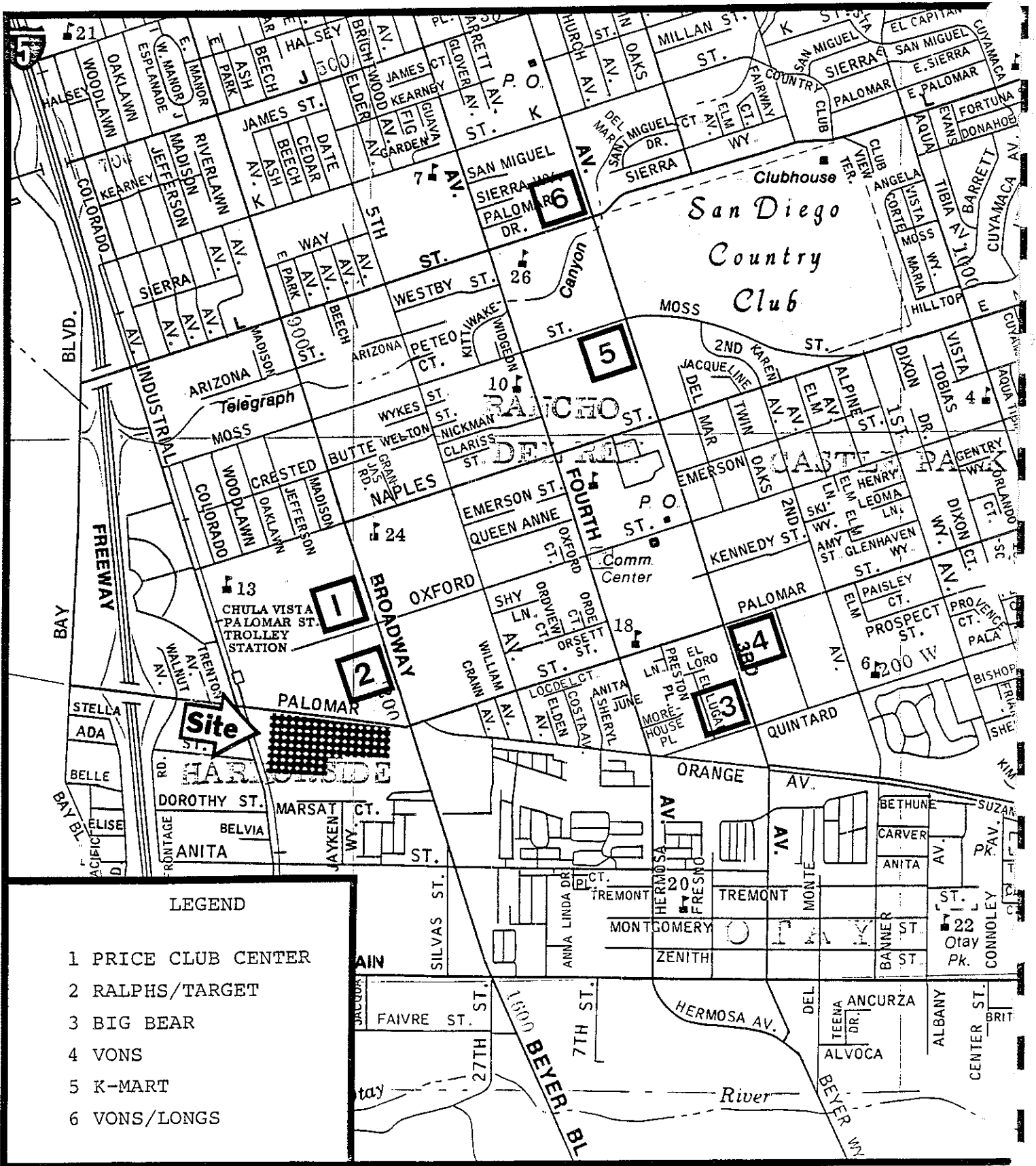


Table A-7  
 PLANNED OR UNDER CONSTRUCTION RETAIL DEVELOPMENTS

<u>Development</u>	<u>Location</u>	<u>Expected Tenant Types</u>	<u>Sq. Ft.</u>	<u>Project Status</u>
Price Club Center	Broadway & Oxford	Retail	10,840	N/A
Broadway Auto Plaza	1129 Broadway	Auto/Retail	15,000	53% Preleased 12-89 Completion
Hermosa Plaza	N.E. Crn. at Main & Third	Retail	8,000	80% Preleased 1/90 Completion
Genesis Square	N.W. Crn. of Broadway and Palomar	Retail	26,720	26% preleased
N/A	1053 Broadway	Retail	22,000	Under Construction
Palomar Village	693 Palomar	Retail Pads	6,000	Proposed
Naples Center	1111 Broadway	Retail	5,590	Under Construction

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Source: Chula Vista Planning Department  
 Area Commercial Brokers  
 CIC Research, Inc., 1989

LISTING OF STATE BOARD OF EQUALIZATION CATEGORIES  
 FOR APPENDIX A  
 (Refer to Table A-8)

TYPE OF BUSINESS	<u>S.B.E. GROUP</u>
(NON-TAXABLE BUSINESSES, VACANCIES)	
APPAREL STORES	1
GENERAL MERCHANDISE STORES	2
DRUG STORES	3
FOOD STORES	4
PACKAGED LIQUOR STORES	5
EATING & DRINKING PLACES	6
HOME FURNISHINGS AND APPLIANCES	7
BUILDING MATERIALS AND FARM IMPLEMENTS	8
AUTO DEALERS AND SUPPLIES	9
SERVICE STATIONS	10
OTHER RETAIL STORES NOT CLASSIFIED ABOVE	11
BUSINESS AND PERSONAL RETAIL SERVICE	12

MARKET BASE CODES

RESIDENTIAL	R
EMPLOYMENT	E

TABLE A-8  
MONTGOMERY SPECIFIC PLAN RETAIL SPACE  
BY S.B.E. CATEGORIES

NAME	ADDRESS	CENTER TYPE	TYPE RETAIL	MARKET BASE	SBE GROUP	DIMENSIONS (IN FEET)	
						LENGT	DEPTH SQUARE FEET
NAPLES CENTER	1111 BROADWAY	STRIP	AIR FORCE			40	64
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	BANK			55	67
PLAZA DEL REY	1223 THIRD	STRIP	CABLE ADMIN.			30	45
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	CHURCH			25	40
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	CHURCH			30	40
NAPLES PLAZA	1090 THIRD	STRIP	CHURCH			50	50
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	CITY OFFICE			240	100
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	CLINIC			25	60
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	COLLEGE			150	100
1038-1044 BROADWAY	1038-1044 BROADWAY	STRIP	CONSTRUCTION			20	50
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DOCTOR			25	60
PLAZA DEL REY	1223 THIRD	STRIP	DOCTOR			25	45
MAIN CENTER	1680 BROADWAY	MIXED USE	DOCTOR			18	60
MAIN CENTER	1680 BROADWAY	MIXED USE	DOCTOR			70	70
CAPE COD CENTER	985 BROADWAY	STRIP	DOCTOR			32	42
1010 BROADWAY	1010 BROADWAY	MIXED USE	FINANCE			40	43
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	FINANCE			17	67
CAPE COD CENTER	985 BROADWAY	STRIP	FINANCIAL			32	42
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED-USE	INSURANCE			40	40
BROADWAY POINT	1177 BROADWAY	STRIP	INSURANCE			17	58
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	INSURANCE			30	30
MAIN CENTER	1680 BROADWAY	MIXED USE	INSURANCE			18	40
MAIN CENTER	1680 BROADWAY	MIXED USE	INSURANCE			22	40
1592 THIRD AVENUE	1592 THIRD AVENUE	CONVENIENCE	LIBRARY			60	40
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	NEWSPAPER			30	30
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	OFFICE			30	50
MAIN CENTER	1680 BROADWAY	MIXED USE	OFFICE			24	40
BROADWAY POINT	1680 BROADWAY	FREESTANDING	OPTICIAN			40	20
CASTLE PARK	1177 BROADWAY	STRIP	POST OFFICE			20	58
1315 THIRD AVENUE	1315 THIRD AVENUE	NEIGHBORHOOD	POST OFFICE			25	67
1592 THIRD AVENUE	1384 THIRD AVENUE	FREESTANDING	REAL ESTATE			25	50
NAPLES PLAZA	1592 THIRD AVENUE	CONVENIENCE	REAL ESTATE			20	40
OXFORD SOUTH CENTER	1090 THIRD	STRIP	TAX			25	45
MAIN CENTER	1200 THIRD AVENUE	STRIP	TAX			30	35
1011-1029 THIRD AVENUE	1680 BROADWAY	MIXED USE	TAX			18	40
PAC. COMMERCE BANK PLAZA	1011-1029 THIRD AVENUE	MIXED-USE	TAX SERVICE			50	40
1038-1044 BROADWAY	1180 THIRD	STRIP	VET			25	60
NON-RETAIL TOTAL	1038-1044 BROADWAY	STRIP	VETERINARIAN			20	50
91,799							
1010 BROADWAY	1000 BROADWAY	FREESTANDING	VACANT			40	40
1010 BROADWAY	1010 BROADWAY	MIXED USE	VACANT			20	43
1010 BROADWAY	1010 BROADWAY	MIXED USE	VACANT			20	43
1100 BROADWAY	1010 BROADWAY	MIXED USE	VACANT			20	43
NAPLES CENTER	1100 BROADWAY	FREESTANDING	VACANT			30	100
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			64	137
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			60	64
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			20	64
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			23	60
BROADWAY POINT	1111 BROADWAY	STRIP	VACANT			20	64
BROADWAY POINT	1177 BROADWAY	STRIP	VACANT			23	58
PAC. COMMERCE BANK PLAZA	1177 BROADWAY	STRIP	VACANT			25	56
1180 THIRD	1180 THIRD	STRIP	VACANT			25	60
1,600							
860							
860							
860							
3,000							
8,788							
3,840							
1,280							
1,380							
1,280							
1,288							
1,400							
1,500							

MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	VACANT	75	50	3,750
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	VACANT	20	40	800
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	VACANT	16	40	640
PLAZA DEL REY	1223 THIRD	STRIP	VACANT	25	45	1,125
PALOMAR SQUARE	1355 BROADWAY	STRIP	VACANT	18	55	990
PALOMAR SQUARE	1355 BROADWAY	STRIP	VACANT	60	50	3,000
PALOMAR SQUARE	1385 BROADWAY	STRIP	VACANT	60	50	3,000
ORANGE PLAZA	1445-1447 THIRD	CONVENIENCE	VACANT			12,000
SOMMERSSET PLAZA WEST	1610-1600 BROADWAY	STRIP	VACANT			52,028
MAIN CENTER	1680 BROADWAY	MIXED USE	VACANT	24	60	1,440
MAIN CENTER	1700 BROADWAY	MIXED USE	VACANT	42	40	1,680
	1700 BROADWAY	FREESTANDING	VACANT	40	40	1,600
	1700 BROADWAY	FREESTANDING	VACANT	42	40	1,680
251 PALOMAR	251 PALOMAR STREET	SPECIALTY	VACANT	25	60	1,500
	300 PALOMAR STREET	FREESTANDING	VACANT	60	10	600
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	50	50	2,500
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	34	40	1,360
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	40	50	2,000
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	VACANT	52	52	2,704
PALOMAR VILLAGE	693 PALOMAR STREET	SPECIALTY	VACANT			8,272
CAL-STORE PLAZA	970 BROADWAY	SPECIALTY	VACANT	88	40	3,440
CAPE COD CENTER	985 BROADWAY	STRIP	VACANT	32	42	1,344
CAPE COD CENTER	985 BROADWAY	STRIP	VACANT	70	42	2,940
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	VACANT RETAIL	35	100	3,500
VACANT TOTAL						142,707

PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SHOES	1	24	1,200	
BIG BEAR	1340 THIRD	NEIGHBORHOOD	CLOTHES	1	25	1,250	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	48	2,400	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200	
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	100	5,200	
	1099 THIRD AVENUE	FREESTANDING	SHOES	1	40	2,000	
BROADWAY POINT	1177 BROADWAY	STRIP	CLOTHES	1	60	3,000	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	15	750	
MAIN CENTER	1680 BROADWAY	MIXED USE	BOOTS	1	86	3,440	
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	SHOES	1	31	1,550	
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	ROUTIQUE	1	25	1,250	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	17	850	
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	60	3,000	
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	SHOES	1	43	2,150	
1084 THIRD AVENUE	1084 THIRD AVENUE	STRIP	SHOES	1	20	1,000	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SHOES	1	23	1,150	
	315 QUINTARD	FREESTANDING	CLOTHING	1	60	3,000	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200	
1084 THIRD AVENUE	1084 THIRD AVENUE	STRIP	CLOTHES	1	30	1,500	
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	52	2,600	
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	CLOTHES	1	40	2,000	
PALOMAR VILLAGE	693 PALOMAR STREET	SPECIALTY	CLOTHING	1	59	2,950	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	28	1,400	
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	CLOTHES	1	44	2,180	
1120 THIRD CENTER	1120 THIRD AVENUE	STRIP	CLOTHING	1	30	1,500	
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	28	1,400	
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200	
OXFORD SQUARE	1185 THIRD AVENUE	FREESTANDING	SHOE	1	20	1,000	
RALPH'S CENTER	1215 BROADWAY	SPECIALTY	CLOTHES	1	40	2,000	
GLAD INDUSTRIAL PARK	2488 MAIN	COMMUNITY INDUSTRIAL	CLOTHES	1	40	2,000	
APPAREL TOTAL				1	69	81	5,589
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	DISCOUNT	2	89	92	8,188
							74,055

PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	DISCOUNT	R	44	50	2,200
BIG BEAR	1340 THIRD	NEIGHBORHOOD	DISCOUNT	R	2	100	5,000
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	PIC N SAVE	R	2	157	27,475
PRICE CLUB CENTER	1144 BROADWAY	COMMUNITY	PRICE CLUB	R	2	200	116,800
	1030 THIRD	FREESTANDING	K-MART	R	2	389	100,382
RALPH'S CENTER	1747 BROADWAY	FREESTANDING	THRIFT	R	2	150	22,500
	1210 BROADWAY	COMMUNITY	TARGET	R	2	325	105,625
GENERAL MERCHANDISE TOTAL							
387,950							

LONGS/VONS CENTER	880 THIRD	NEIGHBORHOOD	DRUG	R	3	175	130	22,750
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	DRUG	R	3	118	150	17,850
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DRUG	R	3	25	60	1,500
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	DRUG	R	3	30	35	1,050
DRUG STORE TOTAL								
43,150								

BROADWAY POINT	1177 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	17	56	952
OLD HANDBALL COURT	1300 BROADWAY	FREESTANDING	7-11	E	4	50	40	2,000
SMALL WORLD VILLAGE	1550 BROADWAY	OFFICE	DELI	E	4		750	
	1418 BROADWAY	MIXED USE	DELI	E	4	20	20	400
	700 PALOMAR	FREESTANDING	CONVENIENCE	E	4	60	40	2,400
PALOMAR SQUARE	1700 BROADWAY	FREESTANDING	AM PM	E	4	40	50	2,000
	NW CORNER THIRD/MAIN	FREESTANDING	MARKET	E	4	90	90	8,100
	1355 BROADWAY	FREESTANDING	AM/PM	E	4	60	50	3,000
	2578 MAIN	STRIP	DONUT	E	4	20	50	1,000
	1085 BAY BOULEVARD	CONVENIENCE	DELI	E	4	40	50	2,000
		INDUSTRIAL	DELI	E	4	20	82	1,640
EMPLOYMENT FOOD STORE TOTAL								
24,242								

LONGS/VONS CENTER	1601 THIRD AVENUE	FREESTANDING	DONUT	R	4	30	50	1,500
	880 THIRD	NEIGHBORHOOD	ICE CREAM	R	4	22	60	1,320
	NW CORNER ORANGE/HILLTOP	FREESTANDING	7/11	R	4	80	50	3,000
OXFORD SOUTH CENTER	1450 THIRD	FREESTANDING	CONVENIENCE	R	4	50	50	2,500
1010 BROADWAY	1200 THIRD AVENUE	STRIP	FOOD	R	4	30	35	1,050
PAC. COMMERCE BANK PLAZA	1010 BROADWAY	CONVENIENCE	CONVENIENCE	R	4	60	43	2,580
	1180 THIRD	STRIP	ICE CREAM	R	4	25	60	1,500
	1609 THIRD	FREESTANDING	FRUIT	R	4	30	40	1,200
NAPLES PLAZA	1415 THIRD AVENUE	FREESTANDING	WOO CHEE CHONG	R	4	80	100	8,000
BIG BEAR	1090 THIRD	STRIP	PRODUCE	R	4	30	50	1,500
PRICE CLUB CENTER	1340 THIRD	NEIGHBORHOOD	GROCERY	R	4	30	50	1,500
	1144 BROADWAY	SPECIALTY	CANDY	R	4	14	50	700
ARCH PLAZA	1000 BROADWAY	FREESTANDING	BUTCHER SHOP	R	4	60	30	1,800
	1037 BROADWAY	STRIP	ICE CREAM	R	4	19	40	700
	PALOMAR/THIRD	FREESTANDING	DONUT	R	4	30	50	1,500
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BUTCHER	R	4	48	50	2,400
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DELI	R	4	30	60	1,800
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	GROCERY	R	4	50	35	1,750
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	RALPH'S	R	4	170	325	55,250
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	GROCERY	R	4	157	213	33,441
	1087 BROADWAY	FREESTANDING	7-11	R	4	50	60	3,000
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	BAKERY	R	4	30	35	1,050
	1310 THIRD AVENUE	FREESTANDING	COUNTRY GROCERY	R	4	50	40	2,000
NAPLES PLAZA	1090 THIRD	STRIP	DELI	R	4	60	45	2,700
LONGS/VONS CENTER	880 THIRD	NEIGHBORHOOD	VONS	R	4	170	130	22,100
1592 THIRD AVENUE	1592 THIRD AVENUE	CONVENIENCE	7-11	R	4	80	40	2,400
	2514 MAIN	FREESTANDING	MARKET	R	4	60	80	3,600
	1085 BAY BOULEVARD	INDUSTRIAL	DESSERT	R	4	20	82	1,640
FOOD STORE TOTAL								
188,051								

1034 THIRD AVENUE	3189 MAIN	FREESTANDING	LIQUOR	R	5	45	50	2,250
PALOMAR SQUARE	1034 THIRD AVENUE	STRIP	LIQUOR	R	5	50	40	2,000
NAPLES PLAZA	1355 BROADWAY	STRIP	LIQUOR	R	5	40	116	4,040
PLAZA DEL REY	1090 THIRD	STRIP	LIQUOR	R	5	25	50	1,250
	1223 THIRD	STRIP	LIQUOR	R	5	40	45	1,800
-----								
	PACKAGED LIQUOR TOTAL							11,940

TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	52	2,000
CAPE COD CENTER	085 BROADWAY	STRIP	FAST FOOD	E	6	20	42	840
	1187 BROADWAY	FREESTANDING	RESTAURANT	E	6	50	90	4,500
CAPE COD CENTER	085 BROADWAY	STRIP	TACO	E	6	41	42	1,722
1100 BROADWAY	1100 BROADWAY	FREESTANDING	PIZZA	E	6	50	90	4,500
MAIN CENTER	1680 BROADWAY	MIXED USE	RESTAURANT	E	6	50	100	5,000
PALOMAR SQUARE	1355 BROADWAY	STRIP	KFC	E	6	50	80	4,000
	THIRD/MONTGOMERY	FREESTANDING	FAST FOOD	E	6	30	45	1,350
BROADWAY POINT	1177 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
	975 BROADWAY	FREESTANDING	RESTAURANT	E	6	40	60	2,400
	1300 BROADWAY	FREESTANDING	RESTAURANT	E	6	60	100	6,000
	1500 BROADWAY	FREESTANDING	RESTAURANT	E	6	40	30	1,200
251 PALOMAR	251 PALOMAR STREET	FREESTANDING	RESTAURANT	E	6	50	60	3,000
BROADWAY POINT	300 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	70	3,500
PALOMAR SQUARE	1177 BROADWAY	FREESTANDING	FAST FOOD	E	6	60	56	3,360
	1355 BROADWAY	STRIP	RESTAURANT	E	6	40	100	4,000
	1636 THIRD	STRIP	JACK IN THE BOX	E	6	40	60	2,400
MAIN CENTER	1680 BROADWAY	FREESTANDING	RESTAURANT	E	6	40	60	2,400
	1685 THIRD	MIXED USE	PIZZA	E	6	18	40	720
	1282 THIRD AVENUE	FREESTANDING	FAST FOOD	E	6	30	50	1,500
MAIN CENTER	1680 BROADWAY	FREESTANDING	FAST FOOD	E	6	50	70	3,500
BROADWAY POINT	1177 BROADWAY	MIXED USE	RESTAURANT	E	6	26	60	1,560
251 PALOMAR	251 PALOMAR STREET	STRIP	FAST FOOD	E	6	20	58	1,120
	2328 MAIN	SPECIALTY	PIZZA	E	6	25	60	1,500
	2540 MAIN	FREESTANDING	RESTAURANT	E	6	50	50	2,500
	2578 MAIN	CONVENIENCE	FAST FOOD	E	6	40	40	1,600
		CONVENIENCE	FAST FOOD	E	6	20	50	1,000
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	EMPLOYMENT EATING AND DRINKING TOTAL							66,492

RALPH'S CENTER	1210 BROADWAY	COMMUNITY	RESTAURANT	R	6	60	80	5,400
	1060 BROADWAY	FREESTANDING	RESTAURANT	R	6	100	60	6,000
	1111 THIRD AVENUE	FREESTANDING	BAR	R	6	25	40	1,000
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	FAST FOOD	R	6	35	60	2,100
	1121 THIRD AVENUE	FREESTANDING	BAR	R	6	40	75	3,000
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	BAR	R	6	60	40	2,400
ARCH PLAZA	1037 BROADWAY	STRIP	RESTAURANT	R	6	40	40	1,600
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	FAST FOOD	R	6	25	40	1,000
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	RESTAURANT	R	6	40	40	1,600
	1300 THIRD AVENUE	FREESTANDING	RESTAURANT	R	6	40	100	4,000
	1141 THIRD AVENUE	FREESTANDING	BAR	R	6	50	50	2,500
PLAZA DEL REY	1223 THIRD	STRIP	FAST FOOD	R	6	30	45	1,350
1120 THIRD CENTER	1120 THIRD AVENUE	STRIP	FAST FOOD	R	6	50	40	2,000
	1049 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	50	2,500
BIG BEAR	1340 THIRD	NEIGHBORHOOD	PIZZA	R	6	25	100	2,500
	1314 THIRD AVENUE	FREESTANDING	BAR	R	6	30	40	1,200
1100 BROADWAY	1100 BROADWAY	FREESTANDING	BAR	R	6	50	50	2,500
MAIN CENTER	1680 BROADWAY	MIXED USE	CLUB	R	6	95	60	5,700
PALOMAR SQUARE	1355 BROADWAY	STRIP	FAST FOOD	R	6	20	116	2,320
	1032 THIRD AVENUE	FREESTANDING	CAFETERIA	R	6	120	60	7,200
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	FAST FOOD	R	6	20	50	1,000
MAIN CENTER	1680 BROADWAY	MIXED USE	BAR	R	6	87	60	5,220



1073 THIRD AVENUE	FREESTANDING	BAR	R	6	30	45	1,350
1011 BROADWAY	FREESTANDING	RESTAURANT	R	6	60	90	5,400
1265 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
1322 THIRD AVENUE	FREESTANDING	BAR	R	6	50	50	2,500
1210 BROADWAY	COMMUNITY	MCDONALD'S	R	6	75	100	7,500
1408 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	80	60	3,600
1286 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
1009 THIRD AVENUE	FREESTANDING	PIZZA	R	6	40	50	2,000
1090 THIRD	STRIP	PIZZA	R	6	35	45	1,575
1005 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	30	40	1,200
303-315 PALOMAR	SPECIALTY	RESTAURANT	R	6	41	40	1,640
1315 THIRD	NEIGHBORHOOD	RESTAURANT	R	6	15	87	1,005
1340 THIRD	NEIGHBORHOOD	RESTAURANT	R	6	50	70	3,500
1200 THIRD AVENUE	STRIP	RESTAURANT	R	6	50	35	1,750
1180 THIRD	STRIP	RESTAURANT	R	6	60	110	6,600
PALOMAR/THIRD	FREESTANDING	PIZZA	R	6	30	50	1,500
1193 THIRD AVENUE	FREESTANDING	RESTAURANT	R	6	60	50	3,000
996 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	80	70	4,200
1266 THIRD AVENUE	FREESTANDING	TACO	R	6	20	20	400
980 BROADWAY	FREESTANDING	RESTAURANT	R	6	40	50	2,000
880 THIRD	NEIGHBORHOOD	SANDWICH	R	6	17	80	1,020
1200 THIRD AVENUE	STRIP	WENDY'S	R	6	50	60	3,000
1090 THIRD	STRIP	RESTAURANT	R	6	60	60	3,600
1144 BROADWAY	SPECIALTY	FAST FOOD	R	6	12	50	600
1144 BROADWAY	STRIP	FAST FOOD	R	6	30	45	1,350
1283 THIRD AVENUE	SPECIALTY	FAST FOOD	R	6	24	50	1,200
1144 BROADWAY	FREESTANDING	FAST FOOD	R	6	40	50	2,000
1120 BROADWAY	COMMUNITY	FAST FOOD	R	6	43	60	2,580
1120 THIRD AVENUE	STRIP	FAST FOOD	R	6	30	75	2,250
303-315 PALOMAR	SPECIALTY	RESTAURANT	R	6	48	40	1,920
1355 BROADWAY	STRIP	FAST FOOD	R	6	20	116	2,320
1315 THIRD	NEIGHBORHOOD	KFC	R	6	40	70	2,800
2620 MAIN	FREESTANDING	BAR	R	6	20	20	400
EATING AND DRINKING TOTAL							
							149,850

683 PALOMAR STREET	SPECIALTY	LAMPS	R	7	38	50	1,900
1223 THIRD	STRIP	FURNITURE	R	7	60	45	2,700
1223 THIRD	STRIP	MIRROR	R	7	40	45	1,800
1068-1082 BROADWAY	SPECIALTY	MOBILE HOME SUPPL.	R	7	30	40	1,200
1401 THIRD AVENUE	FREESTANDING	FURNITURE	R	7	45	50	2,250
683 PALOMAR STREET	SPECIALTY	APPLIANCE	R	7	123	100	12,300
1109 THIRD AVENUE	FREESTANDING	TV	R	7	30	50	1,500
1426 THIRD	FREESTANDING	STEREO	R	7	20	20	400
1340 THIRD	FREESTANDING	VACUUM	R	7	15	100	1,500
1249 THIRD AVENUE	NEIGHBORHOOD	APPLIANCE PARTS	R	7	50	60	3,000
1037 BROADWAY	STRIP	FURNITURE	R	7	40	50	2,000
1034 THIRD AVENUE	STRIP	POOL	R	7	25	40	1,000
880 THIRD	NEIGHBORHOOD	CARPET	R	7	15	60	900
1011-1029 THIRD AVENUE	MIXED-USE	TV	R	7	40	40	1,600
1215 BROADWAY	SPECIALTY	FURNITURE	R	7	62	165	10,230
1223 THIRD	STRIP	TV	R	7	60	45	2,700
1228 THIRD AVENUE	FREESTANDING	FURNITURE	R	7	50	75	3,750
1105 THIRD AVENUE	FREESTANDING	VACUUM	R	7	30	50	1,500
1144 BROADWAY	COMMUNITY	STEREO	R	7	130	100	13,000
1177 BROADWAY	STRIP	FURNITURE	R	7	60	56	3,360
1385 THIRD	NEIGHBORHOOD	FURNITURE	R	7	60	268	16,080
885 BROADWAY	STRIP	STEREO	R	7	30	60	1,800
PAC. COMMERCE BANK PLAZA	STRIP	TV	R	7	20	42	840
1120 THIRD AVENUE	STRIP	STEREO	R	7	40	40	1,000
1088 BROADWAY	FREESTANDING	GLASS	R	7	50	120	6,000
1144 BROADWAY	COMMUNITY	LEVITZ	R	7	151	166	29,568

TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	STEREO	R	7	28	52	1,456
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	STEREO	R	7	36	50	1,800
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	TV	R	7	40	50	2,000
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	STEREO	R	7	91	117	10,647
NAPLES PLAZA	1090 THIRD	STRIP	TV	R	7	40	45	1,800
1068-1082 BROADWAY	1068-1082 BROADWAY	SPECIALTY	POOL SUPPLIES	R	7	15	40	600
	1033 THIRD	FREESTANDING	FURNITURE	R	7	100	258	25,800
	2516 MAIN	FREESTANDING	FURNITURE	R	7	120	60	7,200
	2578 MAIN	CONVENIENCE	TV	R	7	20	50	1,000
	1055 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	100	100	10,000
	1031 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	25	56	1,400
	1095 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	101	151	15,251
AMERICAN DESIGN CENTER	1068 INDUSTRIAL BLVD	MIXSD USE	CARPET	R	7	35	40	1,400
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HOME FURNISHING TOTAL								204,860

PALOMAR VILLAGE	683 PALOMAR STREET	SPECIALTY	PAINT	R	8	47	100	4,700
1068-1082 BROADWAY	1068-1082 BROADWAY	SPECIALTY	HARDWARE	R	8	60	40	2,400
PRICE CLUB CENTER	1144 BROADWAY	COMMUNITY	HARDWARE	R	8	30	40	1,200
BIG BEAR	1340 THIRD	NEIGHBORHOOD	HOME CLUB	R	8	487	235	114,445
			HARDWARE	R	8	153	201	30,753
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BUILDING MATERIALS TOTAL								153,408

BROADWAY POINT	1177 BROADWAY	STRIP	AUTO PARTS	R	9	14	50	784
1100 BROADWAY	1100 BROADWAY	FREESTANDING	AUTO DEALERS	R	9			0
RALPH'S CENTER	1600 BROADWAY	FREESTANDING	AUTO SALES	R	9			0
	1210 BROADWAY	COMMUNITY	AUTO TIRES	R	9	50	110	5,500
SMALL WORLD VILLAGE	531 ORANGE	FREESTANDING	AUTO PARTS	R	9	60	60	3,600
1034 THIRD AVENUE	1418 BROADWAY	MIXED USE	AUTO	R	9	20	30	600
914 THIRD AVENUE	1034 THIRD AVENUE	STRIP	AUTO PARTS	R	9	50	40	2,000
	914 THIRD AVENUE	STRIP	AUTO GLASS	R	9	50	20	1,000
1068-1082 BROADWAY	1001 BROADWAY	FREESTANDING	AUTO DEALER	R	9			0
	1068-1082 BROADWAY	SPECIALTY	AUTO PARTS	R	9	15	40	600
JEROMES	908 THIRD AVENUE	FREESTANDING	AUTO PARTS	R	9	50	110	5,500
GLAD INDUSTRIAL PARK	1385 THIRD	NEIGHBORHOOD	AUTO	R	9	30	80	2,400
GLAD INDUSTRIAL PARK	2488 MAIN	INDUSTRIAL	AUTO PARTS	R	9	40	35	1,400
	2488 MAIN	INDUSTRIAL	AUTO PARTS	R	9	63	81	5,103
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AUTO DEALERS AND SUPPLIES TOTAL								28,487

SW CORNER ORANGE/HILLTOP		FREESTANDING	GAS STATION	R	10	80	50	4,000
1000 THIRD AVENUE		FREESTANDING	GAS STATION	R	10	50	40	2,000
1291 THIRD AVENUE		FREESTANDING	GAS STATION	R	10	40	40	1,600
3205 MAIN		FREESTANDING	GAS STATION	R	10	60	50	3,000
130 BEYER WAY		FREESTANDING	GAS STATION	R	10	50	40	2,000
802 THIRD AVENUE		FREESTANDING	GAS STATION	R	10	50	40	2,000
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SERVICE STATION TOTAL								14,600

BROADWAY POINT	1177 BROADWAY	STRIP	GIFT	R	11	19	56	1,064
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED-USE	COMPUTER	R	11	50	40	2,000
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BABY	R	11	30	50	1,500
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	PET	R	11	30	40	1,200
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	GIFTS	R	11	12	50	600
NAPLES PLAZA	1090 THIRD	STRIP	PARTY GOODS	R	11	25	50	1,250
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SUNGLASSES	R	11	40	50	2,000
NAPLES PLAZA	1090 THIRD	STRIP	PET	R	11	40	45	1,800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	FLOWERS	R	11	17	50	850

TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	PET	R	11	31	52	1,612
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	OFFICE SUPPLIES	R	11	50	60	3,000
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	JEWELRY	R	11	23	52	1,196
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	PET	R	11	30	60	1,800
MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	MUSIC STORE	R	11	50	50	2,500
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	BOOKS	R	11	30	60	1,800
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	COMPUTER	R	11	26	52	1,352
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	GIFTS	R	11	50	60	3,000
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	GLASSES	R	11	20	40	800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	JEWELRY	R	11	24	50	1,200
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	GIFT	R	11	20	20	400
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	ART	R	11	30	50	1,500
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BIKE SHOP	R	11	40	70	2,800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	PET	R	11	26	50	1,300
251 PALOMAR	1185 THIRD AVENUE	FREESTANDING	TOY	R	11	20	40	800
	251 PALOMAR STREET	SPECIALTY	FLOWER	R	11	25	60	1,500
CAL-STORE PLAZA	1193 BROADWAY	FREESTANDING	TOY	R	11	72	100	7,200
	1324 THIRD AVENUE	FREESTANDING	BASEBALL CARDS	R	11	25	50	1,250
BROADWAY POINT	1700 BROADWAY	SPECIALTY	SPORTS	R	11	75	231	17,325
	1177 BROADWAY	FREESTANDING	VIDEO	R	11	42	40	1,680
TROLLEY SQUARE	317 QUINTARD	STRIP	COMPUTER	R	11	56	80	4,480
	651 PALOMAR STREET	FREESTANDING	FLORIST	R	11	40	40	1,600
PALOMAR VILLAGE	914 THIRD AVENUE	SPECIALTY	JEWELRY	R	11	28	52	1,352
TROLLEY SQUARE	693 PALOMAR STREET	FREESTANDING	JEWELRY	R	11	20	20	400
1324 THIRD AVENUE	651 PALOMAR STREET	SPECIALTY	COMPUTER	R	11	50	45	2,250
	1324 THIRD AVENUE	SPECIALTY	PARTY	R	11	58	52	3,008
1324 THIRD AVENUE	1079 THIRD AVENUE	STRIP	PET STORE	R	11	25	50	1,250
	1324 THIRD AVENUE	FREESTANDING	SEWING	R	11	40	40	1,600
LONGS/VONS CENTER	880 THIRD	STRIP	TROPHY	R	11	25	50	1,250
PALOMAR SQUARE	1355 BROADWAY	NEIGHBORHOOD	GIFT	R	11	20	34	680
PLAZA DEL REY	1223 THIRD	STRIP	VIDEO	R	11	55	116	6,380
BROADWAY POINT	1177 BROADWAY	STRIP	GIFT	R	11	25	45	1,125
1010 BROADWAY	1010 BROADWAY	MIXED USE	VIDEO	R	11	18	56	1,064
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	MUSIC	R	11	50	52	2,600
1010 BROADWAY	1010 BROADWAY	MIXED USE	VIDEO	R	11	48	52	2,496
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	BABY	R	11	20	43	860
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED USE	DMV SERVICE	R	11	20	43	860
	1407 THIRD AVENUE	SPECIALTY	VIDEO	R	11	80	40	3,200
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	ANTIQUES	R	11	20	45	900
MAIN CENTER	1680 BROADWAY	FREESTANDING	KEY SHOP	R	11	50	40	2,000
NAPLES PLAZA	1090 THIRD	STRIP	COMPUTER	R	11	30	40	1,200
PALOMAR SQUARE	1355 BROADWAY	MIXED USE	TOY STORE	R	11	18	40	720
	1085 BAY BOULEVARD	STRIP	VIDEO	R	11	25	45	1,125
AMERICAN DESIGN CENTER	1085 BAY BOULEVARD	FREESTANDING	COLOR TILE	R	11	80	50	4,000
AMERICAN DESIGN CENTER	1008 INDUSTRIAL BLVD.	STRIP	JEWELRY	R	11	20	50	1,000
GLAD INDUSTRIAL PARK	1008 INDUSTRIAL BLVD.	INDUSTRIAL	CANOEES	R	11	20	82	1,640
GLAD INDUSTRIAL PARK	2488 MAIN	INDUSTRIAL	BOATS	R	11	60	82	4,920
GLAD INDUSTRIAL PARK	2488 MAIN	MIXED USE	BEAUTY	R	11	35	20	700
	2488 MAIN	MIXED USE	TOYS	R	11	90	32	2,880
	2488 MAIN	INDUSTRIAL	SUPPLY	R	11	40	68	2,720
	2488 MAIN	INDUSTRIAL	ART	R	11	45	35	1,575
		INDUSTRIAL	STEREO	R	11	25	35	875
OTHER RETAIL TOTAL								
128,189								
NAPLES CENTER	1300 BROADWAY	FREESTANDING	DRY CLEANING	E	12	50	40	2,000
EMPLOYMENT BUSINESS AND PERSONAL RETAIL SERVICE	1111 BROADWAY	STRIP	PRINT	E	12	21	64	1,344
1010 BROADWAY	1010 BROADWAY	MIXED USE	LAUNDRY	R	12	42	48	1,932
1562 THIRD AVENUE	1562 THIRD AVENUE	FREESTANDING	LAUNDROMAT	R	12	40	90	3,600
3,344								

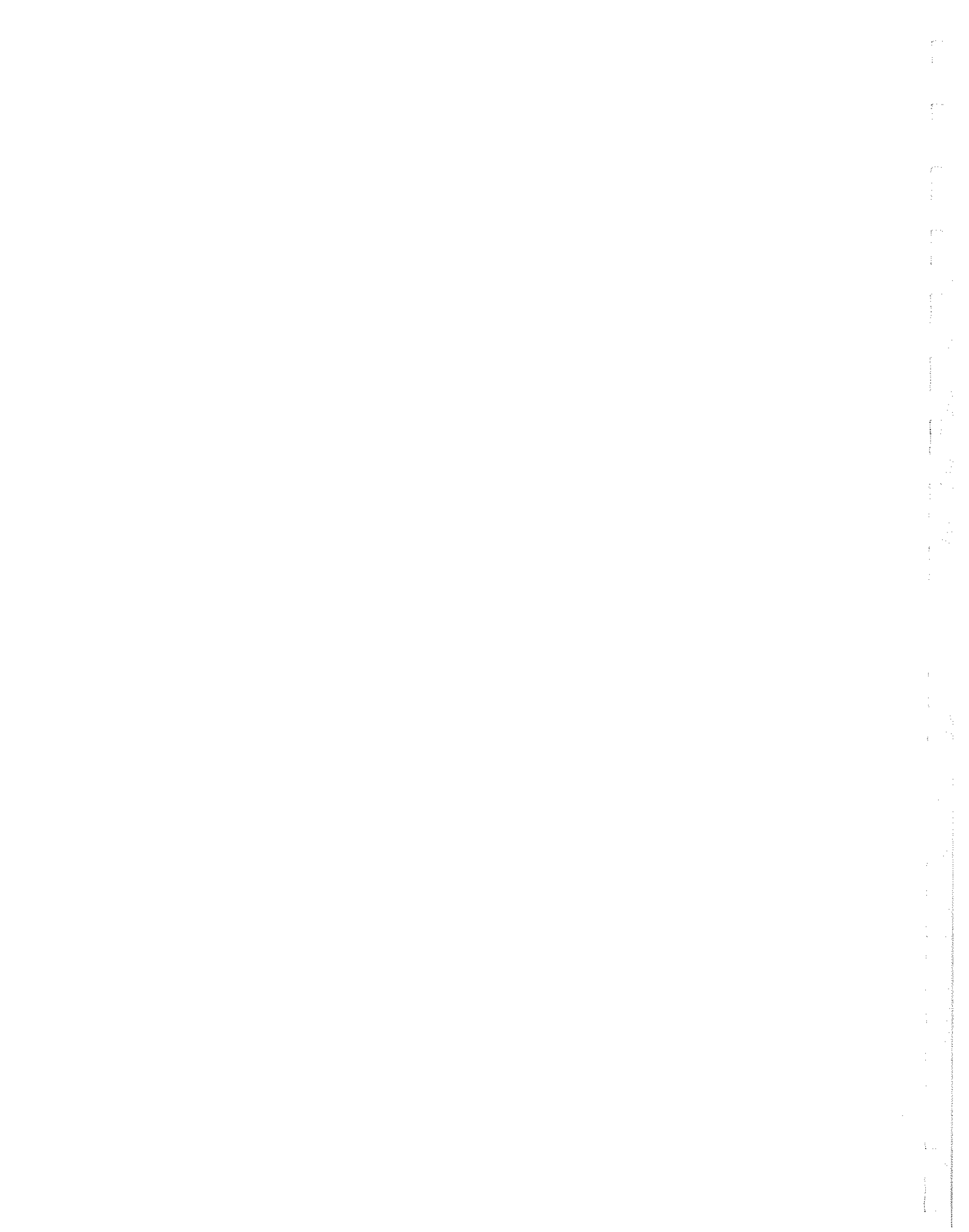
1034 THIRD AVENUE	STRIP	HAIR	R	12	30	40	1,200
914 THIRD AVENUE	STRIP	DRIVING SCHOOL	R	12	20	20	400
1034 THIRD AVENUE	STRIP	CLEANERS	R	12	30	40	1,200
ARCH PLAZA	STRIP	TRAVEL	R	12	20	50	1,000
PALOMAR SQUARE	STRIP	PRINT	R	12	20	55	1,100
PAC. COMMERCE BANK PLAZA	STRIP	KARATE	R	12	25	60	1,500
1038-1044 BROADWAY	STRIP	PRINTING	R	12	20	50	1,000
ARCH PLAZA	STRIP	HAIR	R	12	20	40	800
1011-1029 THIRD AVENUE	STRIP	PRINTING	R	12	40	45	1,800
BIG BEAR	NEIGHBORHOOD	HAIR	R	12	30	100	3,000
NAPLES PLAZA	STRIP	HAIR	R	12	30	45	1,350
1100 BROADWAY	NEIGHBORHOOD	LAUNDRY	R	12	20	100	2,000
BIG BEAR	FREESTANDING	AUTO REPAIR	R	12	30	120	3,000
BIG BEAR	NEIGHBORHOOD	PHOTO	R	12	20	100	2,000
1120 THIRD CENTER	STRIP	BEAUTY	R	12	30	40	1,200
PRICE CLUB CENTER	STRIP	HAIR	R	12	14	50	700
PLAZA DEL REY	STRIP	HAIR	R	12	25	45	1,125
PLAZA DEL REY	FREESTANDING	AUTO REPAIR	R	12	50	100	5,000
BROADWAY POINT	STRIP	TV REPAIR	R	12	30	45	1,350
1324 THIRD AVENUE	STRIP	ARCADE	R	12	40	58	2,240
CAPE COD CENTER	STRIP	LOCKSMITH	R	12	25	50	1,250
CASTLE PARK	STRIP	HAIR	R	12	20	42	840
CASTLE PARK	FREESTANDING	FEST CONTROL	R	12	40	50	2,000
PACIFIC COAST COLLEGE	FREESTANDING	PRINTING	R	12	30	40	1,200
1324 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	90	180	10,200
CASTLE PARK	NEIGHBORHOOD	TAILOR	R	12	18	67	1,206
CASTLE PARK	FREESTANDING	MASSAGE	R	12	20	60	1,200
1324 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	30	60	1,800
CASTLE PARK	FREESTANDING	UPIOLSTERY	R	12	20	40	800
1324 THIRD AVENUE	MIXED USE	AUTO CENTER	R	12	35	60	2,100
CASTLE PARK	STRIP	SHOE REPAIR	R	12	25	50	1,250
1324 THIRD AVENUE	FREESTANDING	BARBER	R	12	20	40	800
CASTLE PARK	NEIGHBORHOOD	CLEANERS	R	12	50	50	2,500
1324 THIRD AVENUE	STRIP	INTERIOR DESIGN	R	12	29	67	1,943
CASTLE PARK	FREESTANDING	TV REPAIR	R	12	50	45	2,250
JEROMES	NEIGHBORHOOD	HAIR	R	12	20	40	800
1034 THIRD AVENUE	FREESTANDING	HAIR	R	12	18	67	1,206
1011-1029 THIRD AVENUE	FREESTANDING	CLEANERS	R	12	20	50	1,000
OXFORD SQUARE	NEIGHBORHOOD	HAIR	R	12	25	60	1,500
NAPLES PLAZA	STRIP	LAUNDRY	R	12	30	40	1,200
SMALL WORLD VILLAGE	FREESTANDING	AUTO REPAIR	R	12	40	70	2,800
PLAZA DEL REY	STRIP	HAIR	R	12	25	45	1,125
1120 THIRD CENTER	SPECIALTY	TRAVEL	R	12	20	40	800
LONGS/VONS CENTER	STRIP	HAIR	R	12	20	40	800
1120 THIRD CENTER	MIXED USE	NAILS	R	12	25	45	1,125
LONGS/VONS CENTER	STRIP	TRAVEL	R	12	25	45	1,125
1120 THIRD CENTER	FREESTANDING	AUTO REPAIR	R	12	30	30	900
LONGS/VONS CENTER	FREESTANDING	KARATE	R	12	50	40	2,000
1120 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	50	60	3,000
1068-1082 BROADWAY	FREESTANDING	BEAUTY SALON	R	12	40	50	2,000
PLAZA DEL REY	NEIGHBORHOOD	HAIR	R	12	15	60	900
PLAZA DEL REY	FREESTANDING	AUTO BODY	R	12	20	60	1,200
PLAZA DEL REY	FREESTANDING	PLUMBING	R	12	50	40	2,000
PLAZA DEL REY	FREESTANDING	AUTO REPAIR	R	12	60	15	900
PLAZA DEL REY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
PLAZA DEL REY	STRIP	PHOTO	R	12	50	50	2,500
PLAZA DEL REY	FREESTANDING	HAIR	R	12	30	40	1,200
PLAZA DEL REY	FREESTANDING	UPHOLSTERY	R	12	40	30	1,200
PLAZA DEL REY	SPECIALTY	PRINT	R	12	20	40	800
PLAZA DEL REY	FREESTANDING	AUTO REPAIR	R	12	40	60	2,400
PLAZA DEL REY	STRIP	HAIR	R	12	25	45	1,125

LONGSVONS CENTER	880 THIRD	NEIGHBORHOOD	CLEANERS	R	12	24	60	1,440
1324 THIRD AVENUE	1324 THIRD AVENUE	STRIP	BEAUTY	R	12	25	50	1,250
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	HAIR	R	12	30	35	1,050
ONFORD SOUTH CENTER	1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	42	40	1,980
PALOMAR SQUARE	1200 THIRD AVENUE	STRIP	PRINTING	R	12	40	50	2,000
MUSIC MART PLAZA	1355 BROADWAY	STRIP	BEAUTY	R	12	20	50	1,000
MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	HAIR	R	12	23	50	1,250
	THIRD/MONTGOMERY	FREESTANDING	AUTO REPAIR	R	12	50	80	4,000
	1181 BROADWAY	SPECIALTY	AUTO REPAIR	R	12	50	50	2,500
	1580 THIRD AVENUE	FREESTANDING	TRANSMISSION	R	12	20	70	1,400
	879 PALOMAR	FREESTANDING	AUTO REPAIR	R	12	40	40	1,600
1100 BROADWAY	1100 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	40	60	2,400
NAPLES PLAZA	1080 THIRD	STRIP	LAUNDRY	R	12	70	45	3,150
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	HAIR	R	12	15	52	780
AMERICAN DESIGN CENTER	1008 INDUSTRIAL BLVD.	MIXED USE	HAIR	R	12	35	20	700
GLAD INDUSTRIAL PARK	2488 MAIN	INDUSTRIAL	PEST CONTROL	R	12	68	35	2,310
	2540 MAIN	CONVENIENCE	PRINT	R	12	40	40	1,600
BUSINESS AND PERSONAL RETAIL SERVICE								
								150,502
TOTAL OCCUPIED SQUARE FEET								1,718,008



## **SECTION VI**

# **Consultant Identification**





**SECTION VI  
CONSULTANT IDENTIFICATION**

This addendum to the Final Focused Environmental Impact Report For The Palomar Trolley Center EIR-89-4M, was prepared by A.D. Hinshaw Associates in conformance with the California Environmental Quality Act (CEQA), as amended (California Public Resources Code Section 21000 et seq.); the CEQA Guidelines, as amended (California Administrative Code Section 15000 et seq.); and the City of Chula Vista EIR Guidelines.

I hereby affirm that to the best of our knowledge and belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated.

---

Philip L. Hinshaw, President  
A.D. Hinshaw Associates



FINAL FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M  
SCH# 89032915

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

July 12, 1989



This document, entitled Final Focused Environmental Impact Report For The Palomar Trolley Center EIR-89-4M, is a "focused EIR" which concentrates on the potentially significant issues involved with the proposed project. Following the issuance of the Notice of Completion (NOC) on March 29, 1989, the Draft EIR was made available for review by the public and public agencies for a 45-day public review period to critique the EIR and gather addition information not contained within the EIR. During the 45-day public review period from March 29, 1989 to May 12, 1989, comments were received from the following persons, organizations, and public agencies:

- . Roger Daoust, Senior Civil Engineer, City of Chula Vista
- . California Department of Transportation, District 11
- . California Public Utilities Commission

The City of Chula Vista Planning Commission held a public hearing on May 24, 1989, to receive additional comments on the Draft EIR. At the conclusion of the public hearing, the Planning Commission voted unanimously to close the public review period.

In response to the additional information and various comments received during the public review period, some changes have been made to the text, figures and tables of the Draft EIR. These changes were made on pages I-4, I-5, I-7, I-8, 5, 6, 17, 21, 29, 30, 31, and 83. Text revisions within the Draft EIR are indicated by ~~Strikeout~~ and Underline.

The following comment letters and responses, and the revised Draft EIR constitute the Final EIR.

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May 5, 1989  
File # YE-030

TO: Doug Reid, Environmental Review Coordinator  
FROM: Roger Daoust, Senior Civil Engineer *WR*  
SUBJECT: E.I.R. (Palomar Trolley Center)

Following are the Engineering Department's Comments on the subject E.I.R.:

1. Table 3.1.3, page 21 - Table shall be revised to show ADT's of 12,000 and 7,500 associated with level of service "C" on modified collector and light collector streets respectively. Levels of service A and B for same road classifications shall be revised accordingly.
2. Section 3.1.3.1, Page 29 - Second paragraph shall be revised as shown in attached photocopy to make it consistent with ADT for level of service "C" for Prime Arterial (table 3.1.3) and with the cumulative ADT shown in Figure 3.1.4 of same report.
3. Section 3.1.3.3, page 29 and page 30 - Text shall be revised to make it consistent with the first paragraph of that section that explicitly recommends the relocation of the existing traffic signal at the Palomar/Trolley Station to the main project entry.
4. Section 3.1.3.4, page 30 - Shall indicate that an access easement or agreement is needed to perpetuate the public's right to access.
5. Section 3.1.3.8, page 31 - Shall be revised to read "The project proposes to cul de sac the north end of Jayken Way, south of the project. The final location of location of the cul de sac will be determined in a future stage."
6. Section 3.1.4, page 31 - First paragraph shall be revised to delete the reference to the new circulation element which has not yet been adopted by the City.

7. Page I-5 - Mitigation measure #8 is shown to cul de sac Jayken Way south of the project. No other discussion of this proposal as a mitigation measure is given, nor is a rationale presented to substantiate this proposal. Inasmuch as vacation of the street is proposed some consideration of its value as an access to or across the project site needs to be included. This would appear to be particularly important since a comparison of figures 3.1.4 and 3.1.5 show that traffic on Palomar, Broadway and Industrial are all lowered by virtue of Jayken Way being available.

Table 3.1.7 and paragraphs 5 and 6 on page 26 appear to argue for the provision of this access. The transportation access discussion on page I-4 seems particularly to favor the retention of Jayken Way.

The consideration of a project alternative which provides access through the project site and to the south seems to be clearly indicated.

LdT:jg

(A\MEMOS\PALOTRCT.DOC)



## Roger Daoust's Letter Attachment A

Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS E according to the Roadway Classification Standards contained in the Circulation Elements, as indicated in the Willden report. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus,~~ it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by

Response #1

Table 3.1.3 has been revised to incorporate the new information.

Response #2

Page 29 has been revised as shown on the attachment.

Response #3

Pages 29 and 30 have been revised to be internally consistent.

Response #4

Page 30 has been revised to reflect the comment.

Response #5

The revised wording has been inserted on page 31.

Response #6

Page 31 has been revised to delete the reference to the new Circulation Element.

Response #7

The following additional text has been added to Page 17.

"If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance".

The following additional alternative has been added to Section 4.0 of the Draft EIR (see page 83).

**"4.4 JAYKEN WAY ACCESS**

This alternative assumes that access is provided to the project site from the south via Jayken Way. Currently Jayken Way ends on the south side of the San Diego Gas and Electric easement located adjacent to the southern boundary

of the project site. Thus, the extension of Jayken Way would cross the SDG&E easement to gain access to the project site. A redesign of the building locations and internal circulation (see Site Plan, Figure 2.2.1) would be required to provide for this connection to the south.

#### Transportation/Access

As explained on page 17 of this EIR, if the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance. These differences are presented in Figures 3.1.4 and 3.1.5.

The only intersection Level of Service that would be affected is the Broadway/Palomar Street intersection. As stated on page 26, the LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. If access is also provided to Anita Street via Jayken Way, the Broadway/Palomar Street intersection would operate at LOS B.

#### Community Social Factors

This alternative would have no effect on Community Social Factors.

#### Maintenance of Adopted Growth Management Threshold Standards

This alternative would have no effect on the adopted Threshold Standards."

The following summary of the Jayken Way alternative has been added to page I-7.

"The Jayken Way alternative assumes that access to Anita Street is provided by extending Jayken Way to the southern boundary of the project site. This alternative would not adversely impact the surrounding street network and would increase the Level of Service at the Broadway/Palomar Street intersection from LOS C to LOS B (assuming that dual left turn lanes on east bound Palomar Street are also constructed)."

Memorandum

STATE CLEARINGHOUSE  
ATTENTION Garrett Ashley

Date : May 8, 1989  
File No.: 11-SD-005  
6.8

From : District 11  
DEPARTMENT OF TRANSPORTATION

Subject : DEIR (FOCUSED) FOR THE  
PALOMAR TROLLEY CENTER,  
CHULA VISTA, SCH 89032915

- 8. Pages 29 and 30 - Caltrans District 11 is concerned about potential impacts to the Interstate Route 5 interchange at Palomar Street. Mitigations for those impacts need to be worked out with the City of Chula Vista. Also, trolley patronage directly impacts Interstate 5 and we strongly recommend that existing access for the Palomar Street Trolley Station be maintained or improved.

Our contact person for Interstate Route 5 is Jim Linthicum, District Project Studies Engineer, (619) 237-6952.

  
JAMES T. CHESHIRE, Chief  
Environmental Planning Branch

MO:yg

Response #8

The City of Chula Vista and CALTRANS are currently preparing plans for the reconstruction of the I-5/Palomar Street interchange (see EIR, page 29). The improvements to Palomar Street and its intersections with Industrial Avenue and Broadway will improve traffic flows on Palomar Street. These improvements would not adversely impact the I-5 interchange.

The relocation of the Trolley Station entrance traffic signal would not adversely impact traffic flow in and out of the station. Right-turn in and out access movements are recommended to remain (see Mitigation Measure #3, pg. 29).

## UTILITIES COMMISSION

CALIFORNIA  
C. A. 94102

April 4, 1989

Douglas D. Reid  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

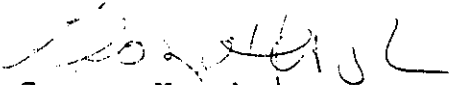
Subject: California Public Utilities Commission (CPUC) Response  
to Draft EIR for the Palomar Trolley Center  
(SCH# 89032915)

Dear Mr. Reid,

The California Public Utilities Commission's staff has reviewed the Draft EIR for the above-mentioned project.

9. Please note that if altering at-grade crossings of rail tracks requires authorization of the CPUC. In addition, the CPUC requires that control of signalized intersections within 200 feet of railroad track crossings be pre-empted by train traffic. Please call Roy Lathrop (415-557-1429) if you have any questions about this comment.

Sincerely,

  
George Hersh  
Environmental Program Manager  
Environmental Section  
Commission Advisory and Compliance Division

cc: State Clearinghouse

Response #9

No altering of the at-grade rail crossing is anticipated. The traffic signals in the area currently operate to allow for pre-empted train traffic, and no changes are anticipated.

## PLANNING COMMISSION HEARING COMMENTS

MAY 24, 1989

### Commission's Comments

10. When will traffic improvements be made?
11. Does the project provide mitigation for I-5/Palomar Street interchange impacts?
12. Is there sufficient stacking room for west bound traffic on Palomar Street east of the rail (trolley) tracks?
13. Is there room for a bike lane on the north side of Palomar Street?

### Pacific Scene's Comments

14. The traffic generation factor used for the Existing Zoning Alternative is too low. A factor of 12 trips per 1,000 square feet should be used instead of 8 trips per 1,000 square feet. The lot coverage for the Existing Zoning Alternative should be 35 to 45 percent instead of 25 percent. Using a trip generation rate of 12 trips per 1,000 square feet and a lot coverage of 40 percent would result in 2,557 ADT (12.23 ac. X 43,560 sq.ft./ac X 0.40 lot coverage X 12 trips/1,000 sq.ft. = 2,557 ADT).

### Jehovah Witness Kingdom Hall Representative's Comments

15. There is an existing drainage problem near the southern project boundary and Jayken Way that should be corrected.

### Resource Conservation Commission Representative's Comments

16. The Commission recommends certification of the EIR.
17. The Commission recommends that the four restaurant pads should be deleted from the project.



Response #10

The traffic improvement mitigation measures will be made a condition of approval of the project.

Response #11

The City of Chula Vista and CALTRANS are currently planning improvements to be made to the interchange, however there is no schedule for the construction of the interchange improvements. The Palomar Trolley Center project will be required to make improvements to Palomar Street between the interchange and Broadway.

Response #12

Willdan Associates reports that there is sufficient stacking room for traffic along westbound Palomar Street.

Response #13

The City Traffic Engineer reports there will be five feet of paved area available for a bike lane on the north side of Palomar Street.

Response #14

The traffic generation factor used for the Existing Zoning Alternative was 90 trips per acre. This factor was taken from the traffic analysis prepared by Willdan Associates. Multiplying this factor by the acreage of the project site, 12.23 acres, results in a traffic generation of 1,100 average daily trips (ADT). SANDAG's Vehicular Traffic Generation Rates For The San Diego Region also indicates that 90 trips per acre is the traffic generation factor for industrial parks. In addition to this factor, SANDAG also indicates 8 trips per 1,000 square feet of gross floor area as a traffic generation factor for industrial parks. The assumed gross floor area for the Existing Zoning Alternative (137,500 sq.ft.) was derived by dividing the 1,100 ADT by the 8 trips per 1,000 sq.ft. factor  $((1,100/8) \times 1,000 = 137,500)$ . This assumed gross floor area square footage is a valid assumption considering the amount of area which would be required for setbacks, off-street parking, and landscaping.

Response #15

According to the City of Chula Vista's Engineering Department, the earthen channel located south of the project boundary is a poor drainage feature which possesses problems such as standing water. The Engineering Department indicates that the proposed project will not worsen the existing drainage problem and may even improve the current situation by drawing away surface runoff from that area. The City indicated, however, that the project will not be responsible for improving the drainage feature.

Response #16

No response required.

Response #17

This suggestion has been noted for possible future consideration by the City.

REVISED  
DRAFT FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

March 22, 1989

Revised July 6, 1989



## TABLE OF CONTENTS

### LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
1.2.1 Comparison of Alternatives	I-9
3.1.1 Trip Generation, Current Zoning	14
3.1.2. Trip Generation, Proposed Project	15
3.1.3 City of Chula Vista Proposed Standard Street Classifications	21
3.1.4 Cumulative ADT and LOS	22
3.1.5 New Circulation Element Roadway Capacity Standards	23
3.1.6 Existing Study Area Segment Volumes	23
3.1.7 Intersection Levels of Service in the Project Vicinity	25
3.2.1 Traffic Volumes	39
3.2.2 Market Area Population and Housing Estimates	41
3.2.3 Market Area Household Income Estimates	42
3.2.4 Retail Expenditure Potential 1988	44
3.2.5 Retail Expenditure Potential 1990	45
3.2.6 Market Area Employment Base	46
3.2.7 Market Area Employment Base Retail Support Projections	47
3.2.8 Existing Retail Centers	50
3.2.9 Planned Retail Developments	56
3.2.10 Estimated Square Feet of Retail Space by Type of Business	58
3.2.11 Potential Sales - Supermarket/Drugstore Center	59
3.2.12 Potential Sales - Off-Price Shopping Center	60
3.2.13 Potential Impact - Supermarket/Drugstore Center	62
3.2.14 Potential Impact - Off-Price Shopping Center	63
3.2.15 Market Share Capture	64
3.2.16 Study Site Potential Sales tax Revenues	70



PALOMAR TROLLEY CENTER EIR

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
1.0	INTRODUCTION	
	1.1 Purpose	I-1
	1.2 Executive Summary	I-4
2.0	PROJECT DESCRIPTION AND SUMMARY	
	2.1 Location	1
	2.2 Project Characteristics	1
	2.3 Related Projects	7
3.0	ENVIRONMENTAL ANALYSIS	
	3.1 Transportation/Access	10
	3.2 Community Social Factors	32
	3.3 Maintenance of Adopted Growth Management Threshold Standards	72
4.0	ALTERNATIVES	
	4.1 Alternative #1 - "No Project"	81
	4.2 Alternative #2 - Existing Zoning	81
	4.3 Alternative #3 - Reduced Project	82
5.0	UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS	84
6.0	THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	85
7.0	IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT	87
8.0	GROWTH INDUCING IMPACT OF THE PROPOSED ACTION	88
9.0	REFERENCES	89
10.0	CONSULTANT IDENTIFICATION	90

## TABLE OF CONTENTS

### APPENDICES

- A. Initial Study, Notice of Preparation and Responses
- B. Translation Table, Montgomery Specific Plan
- C. Traffic Analysis
- D. Economic Impact Analysis
- E. Preliminary Drainage Analysis

### LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
2.1.1 Regional Map	2
2.1.2 Vicinity Map	3
2.1.3 Aerial Photograph	4
2.2.1 Site Plan	6
2.3.1 Related Projects	9
3.1.1 Existing Daily Traffic Volumes	11
3.1.2 Trip Distribution	16
3.1.3 P.M. Peak Hour Trips	18
3.1.4 Cumulative ADT	19
3.1.5 Cumulative ADT With Jayken Court Access	20
3.2.1 Site Plan	34
3.2.2 Existing Retail	36
3.2.3 Traffic Distribution	38
3.2.4 Planned Retail Developments	55
3.3.1 Drainage Map	74



## 1.0 INTRODUCTION

### 1.1 PURPOSE

This document is an Environmental Impact Report (EIR) which addresses the development of a private project named Palomar Trolley Center, proposed by Pacific Scene, Incorporated. The applicant proposes to develop a 12.23 acre site as a community shopping center incorporating a total of 127,365 gross square feet of building space. The proposed site is located in the Harborside Community of the Montgomery Specific Plan area of the City of Chula Vista.

The California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et. seq.) requires the preparation of Environmental Impact Reports (EIRs) or other environmental analysis for any project the City of Chula Vista intends to carry out or approve. The purpose of an EIR is to inform the public and the decision-makers about the nature of the project being considered and the extent and kinds of impacts the project and alternative projects will have on the environment if the project is carried out.

Environmental Impact Reports must contain discussions of specific topics as outlined in the State CEQA Guidelines (California Administrative Code Sections 15000 et. seq.) for the implementation of CEQA prepared by the State Secretary for Resources. These guidelines are periodically updated to comply with changes in CEQA and court interpretations. The following list identifies the required CEQA sections and where they are located in this EIR.

<u>Required Description and Analysis</u>	<u>EIR Section</u>
1. Summary (Sect. 15123)*	Section 1.2
2. Project Description (Sect. 15124)	Section 2.0
3. Environmental Setting (Sect. 15125)	Section 3.0
4. Environmental Impact (Sect. 15126 (a),(b),(c))	Section 3.0
5. Alternatives To Proposed Project (Sect. 15126(d))	Section 4.0
6. The Relationship Between Local Short-term Uses Of Man's Environment And The Maintenance And Enhancement Of Long-term Productivity (Sect. 15126(e))	Section 6.0
7. Significant Irreversible Environmental Changes (Sect. 15126(f))	Section 7.0
8. Growth Inducing Impacts (Sect. 15226(g))	Section 8.0
9. Cumulative Impacts (Sect.15130)	Section 3.0

---

\* Applicable Sections of the State CEQA Guidelines are contained in parentheses.

A preliminary environmental analysis was conducted by the Planning Department staff to determine areas of potential environmental impact. Possible significant adverse impacts which may result from the project were identified by the City staff through completion of an Initial Study. Three areas identified by City staff are Circulation/Traffic, Socio-economic Impacts, and The Maintenance of Adopted Threshold Standards. All other issues were determined not to have potentially significant environmental impacts and therefore are not addressed in this EIR.

The environmental consultant to the City is A.D. Hinshaw Associates, of San Diego, California. Preparers of and contributors to this report are listed in Section 10.0. Key contact persons are:

City of Chula Vista

Mr. Doug Reid  
Environmental Review Coordinator  
Planning Department  
276 Fourth Avenue  
Chula Vista, CA 92010  
(619)691-5101

Environmental Consultant

Mr. Philip L. Hinshaw  
A.D. Hinshaw Associates  
6136 Mission Gorge Rd., Ste. 111  
San Diego, CA 92120  
(619)280-2264

Applicant

Mr. A. James Moxham  
Pacific Scene, Inc.  
2505 Congress Street  
San Diego, CA 92110  
(619)299-5100

This document, entitled Draft Environmental Impact Report, is a "focused EIR" which concentrates on the potentially significant issues involved with the proposed project. The draft EIR will be made available for review by the public and public agencies for 45 days to critique the EIR and gather additional information not covered here. The draft EIR will be available for review at the Planning Department, 276 Fourth Avenue.

The determination that the City of Chula Vista is the "lead agency" was made in accord with Sections 15050, 15051, and 15367 of the State CEQA Guidelines, which define the lead agency as the "public agency which has principal responsibility for carrying

out or approving the project." This EIR has been prepared in accordance with the criteria, standards, and procedures of:

- . the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et. seq.);
- . the State CEQA Guidelines (California Administrative Code Sections 15000 et. seq.);
- . the Environmental Review Procedures of the City of Chula Vista; and
- . the regulations, requirements and procedures of any other responsible agency with jurisdiction by law.

A Notice of Preparation was prepared as a part of the environmental review process and mailed to affected agencies, organizations and persons who may have an interest in this project. Agencies or interested persons not contacted or who have not responded to the Notice of Preparation will have the opportunity to comment during the public review of the Draft EIR. Comments received by the City of Chula Vista together with the responses to such comments, will be included in the Final EIR in accordance with the guidelines and procedures of the State and County.

Relevant reports and other reference material from which data or conclusions have been drawn are listed in Section 8.0. Numbers in brackets in the text of this EIR (e.g., [A-1, p.1]) refer to the documents listed in this section.

## 1.2 EXECUTIVE SUMMARY

This section summarizes the significant and adverse impacts anticipated to occur as a result of the approval of the proposed Specific Plan Amendment (SPA), Zone Change and future approvals required to implement the project including Street Vacations, Design Review, Grading Permit, Tentative Parcel Map, and Site Plan and Architecture Review; and the subsequent development of the Palomar Trolley Center.

### TRANSPORTATION/ACCESS

The proposed Palomar Trolley Center will add approximately 6,250 newly generated average daily trips (ADT) to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the proposed project's traffic is added to that of recently approved projects, Palomar Street is projected to operate at level of service (LOS) E under the existing Circulation Element classification, ~~and LOS F under the new Circulation Element classification.~~

Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. Industrial Boulevard between Palomar Street and Main Street will deteriorate to LOS D. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects.

The intersection of Palomar Street/Broadway will deteriorate from LOS B to LOS D following the construction of the project. The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F and would continue at this level after construction of the Palomar Trolley Center.

To mitigate the adverse impacts to the local street network, the following measures are recommended to be implemented.

1. Improve Palomar Street to the Major Street Classification with a raised median along the frontage of the Palomar Center.
2. Improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing.
3. ~~Conduct a detailed traffic signal removal analysis for the purpose of relocating the traffic signal at the Palomar Street/Trolley Station entry to the main project entry.~~

4. Provide an internal connection between the proposed project and the Trolley Station.
5. Provide dual left-turn lanes on the westbound approach of the Palomar Street/Project Entry intersection.
6. Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection.
7. Conduct a detailed site analyses for the individual restaurants at the time of conditional use permit application.
8. ~~Cul-de-sac-the--north-end--of-Jayken--Way-south--of-the-SDG&E right-of-way-south-of-the-project.~~

These measures will mitigate all of the adverse impacts to a less than significant level. The City's Threshold Standards will be met if the recommended mitigation measures are implemented.

#### COMMUNITY SOCIAL FACTORS

The proposed retail center would continue the trend of increasing competitiveness among smaller centers along Broadway. The potential for business losses or failures is rooted in location and design problems associated with these centers/outlet. While the Palomar Trolley Center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences.

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers.

Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies can not be ascribed to the eventual marketing of the Palomar Trolley Center, since it is not large enough to impact the market, and its eventual uses have not been specifically identified.

Development of the proposed project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. Although the subject development is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

Because no significant adverse socioeconomic impacts have been identified, there are no mitigation measures to be associated with the Palomar Trolley Center project.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present...", but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged [A-7 p.8]. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infill sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.

#### **MAINTENANCE OF ADOPTED GROWTH MANAGEMENT THRESHOLD STANDARDS**

Because the site is located in a substantially developed area where public services and facilities are already provided, the development of the site is not expected to result in any impacts to the maintenance of the City's Adopted Growth Management Threshold Standards for Fire/Emergency Medical Service, Parks and Recreation, Sewer, and Water.

There will be significant cumulative impacts to the maintenance of Police Service Threshold Standards as a result of implementing the proposed development and other projects which have been recently approved. To mitigate these cumulative impacts, it is recommended that the Growth Management Oversight Committee (GMOC) review the current level of service of the Police Department and, if warranted, that the City Council hold a public hearing for the purpose of adopting a moratorium on the

acceptance of new tentative maps or other discretionary approvals applications during which time the City shall prepare specific mitigation measures for adoption which are intended to bring the condition into conformance. The degree to which they are mitigated will be determined by the measures implemented by the City.

Preliminary hydrology calculations indicate that the development of the proposed project will result in an increase of surface runoff of 13 cfs for Q<sub>10</sub> flows and 17 cfs for Q<sub>50</sub> flows at the sump located south of the project. Depending on the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows, the development of the proposed project may have an effect upon the City's threshold standards for drainage.

It should be noted that all the assumptions used in the preliminary hydrology calculations are based upon the most current drainage study on file with the City, which was prepared more than 20 years ago. Records were found to be incomplete and, at best, outdated. Therefore, it is recommended that a more thorough hydrology study be conducted in order to better determine the downstream effects of the proposed project and, accordingly, its effect upon the City's threshold standards for drainage.

#### **ALTERNATIVES**

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. The "No Project" alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition and no significant environmental impacts are expected to occur as a result of this alternative.

The "Existing Zoning" alternative would develop the site in accord with the Specific Plan land use designation, Research and Limited Industrial, and the existing zoning designation, M52-Limited Impact Industrial. Total gross floor area is assumed to be 137,500 sq.ft.

The "Reduced Project" alternative assumes a "reduced scale of development" of the proposed project. This alternative reduces the gross floor area by approximately 15,335 sq.ft. for a total project size of approximately 112,030 sq.ft. gross floor area.

The "Jayken Way" alternative assumes that access to Anita Street is provided by extending Jayken Way to the southern boundary of the project site. This alternative would not

adversely impact the surrounding street network and would increase the Level of Service at the Broadway/Palomar Street intersection from LOS C to LOS B (assuming that dual left turn lanes on east bound Palomar Street are also constructed).

Table 1.2.1 lists the environmental issues and a comparison of the impacts associated with the proposed project and the alternatives.



Table 1.2.1  
COMPARISON OF ALTERNATIVES

	ALTERNATIVES		
	Proposed Project	Existing Zoning	Reduced Project
TRANSPORTATION/ACCESS	6,248 ADT	1,100 ADT	5,489 ADT
COMMUNITY SOCIAL FACTORS	No Physical Deterioration	No Physical Deterioration	No Physical Deterioration
MAINTENANCE OF THRESHOLD STANDARDS			
Fire and Emergency Medical Service	3-7 Minute Response	3-7 Minute Response	3-7 Minute Response
Police Services*	4 Minute Response	4 Minute Response	4 Minute Response
Parks and Recreation	No Impact	No Impact	No Impact
Drainage	Drainage Study Required	Drainage Study Required	Drainage Study Required
Sewer	21,540 gpd Adequate Facilities Available	23,212 gpd Adequate Facilities Available	18,930 gpd Adequate Facilities Available
Water Required Fire Flow	30.57 ac ft/yr 5,000 gpm Service Available	12.23 ac ft/yr 5,000 gpm Service Available	30.57 ac ft/yr 5,000 gpm Service Available
Jayken Wy. Access	6,248 ADT	Slightly Improved Circulation	6,248 ADT Slightly Improved Circulation

\* Current Level Of Service is below City Threshold Standard  
Note: No environmental impacts would result from the "NO Project" alternative



## 2.0 PROJECT DESCRIPTION

### 2.1 LOCATION

The proposed Palomar Trolley Station Center is located in the City of Chula Vista. Chula Vista is located in the South Bay area of the County of San Diego, approximately 8 miles south of the City of San Diego's downtown and approximately 7 miles from the international border with Mexico (See Figure 2.1.1). The property is contained within the U.S.G.S. Imperial Beach Quadrangle (See Figure 2.1.2). The 12.23+ acre project site is located within the Harborside "B" subcommunity of the Montgomery Specific Plan area, south of Palomar Street and immediately east of the Palomar Street Trolley Station (See Figure 2.1.3).

Montgomery is located in the southwestern area of the City of Chula Vista, on the low coastal plain on the eastern shore of San Diego Bay. It has a gently rolling terrain with low hills to the north and east which slope downward to the south and west. The Montgomery Specific Plan describes Montgomery as "a low-profile, medium density, suburban community which is substantially developed. It is characterized by its mixed land use pattern, strip commercial, incomplete infrastructure, scarcity of park sites, and generally unkept appearance." Harborside is described in the Specific Plan as having land use pattern of mixed commercial, industrial, and residential uses, lacking overall community integrity [A-1].

### 2.2 PROJECT CHARACTERISTICS

#### A. Requested Actions

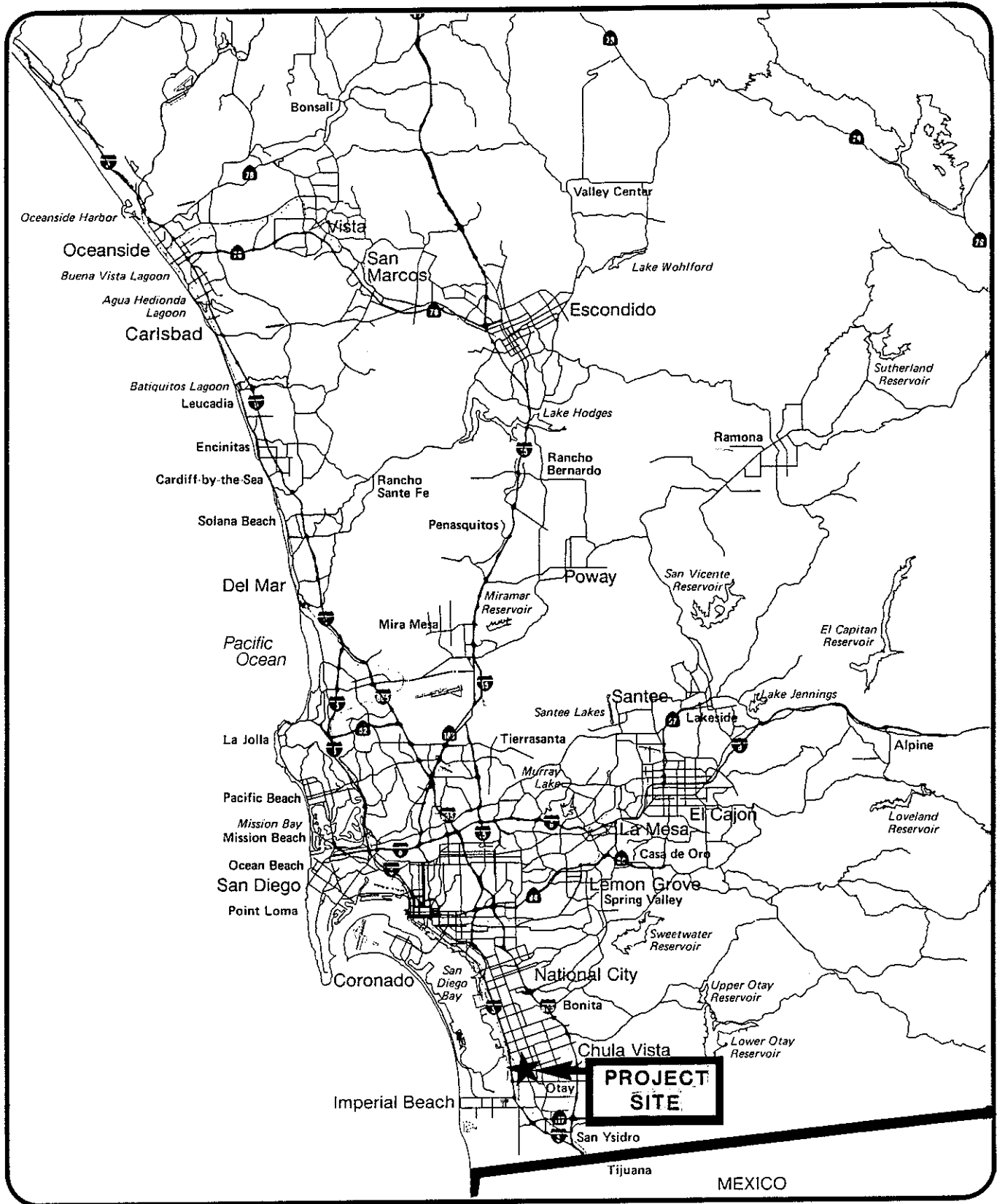
The development of the proposed project will initially require a Specific Plan Amendment (SPA), and a Zone Change. Future approvals required to implement the project include Street Vacations, Design Review, Grading Permit, Tentative Parcel Map, and Site Plan and Design Review.

#### 1. Specific Plan Amendment

The existing Montgomery Specific Plan land use designation for the site is Research and Limited Industrial, which is designated for light and limited industrial uses. Typical land uses intended for this designation include industrial parks, and research and development parks.

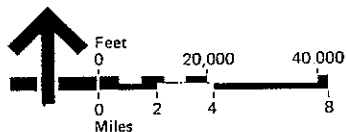
The proposed SPA designation is Mercantile and Office Commercial which is designated for sales of convenience and durable goods/services, and offices. Typical land uses intended for this designation include community shopping centers and offices, and mixed commercial centers and strips.





SOURCE: San Diego Association of Governments

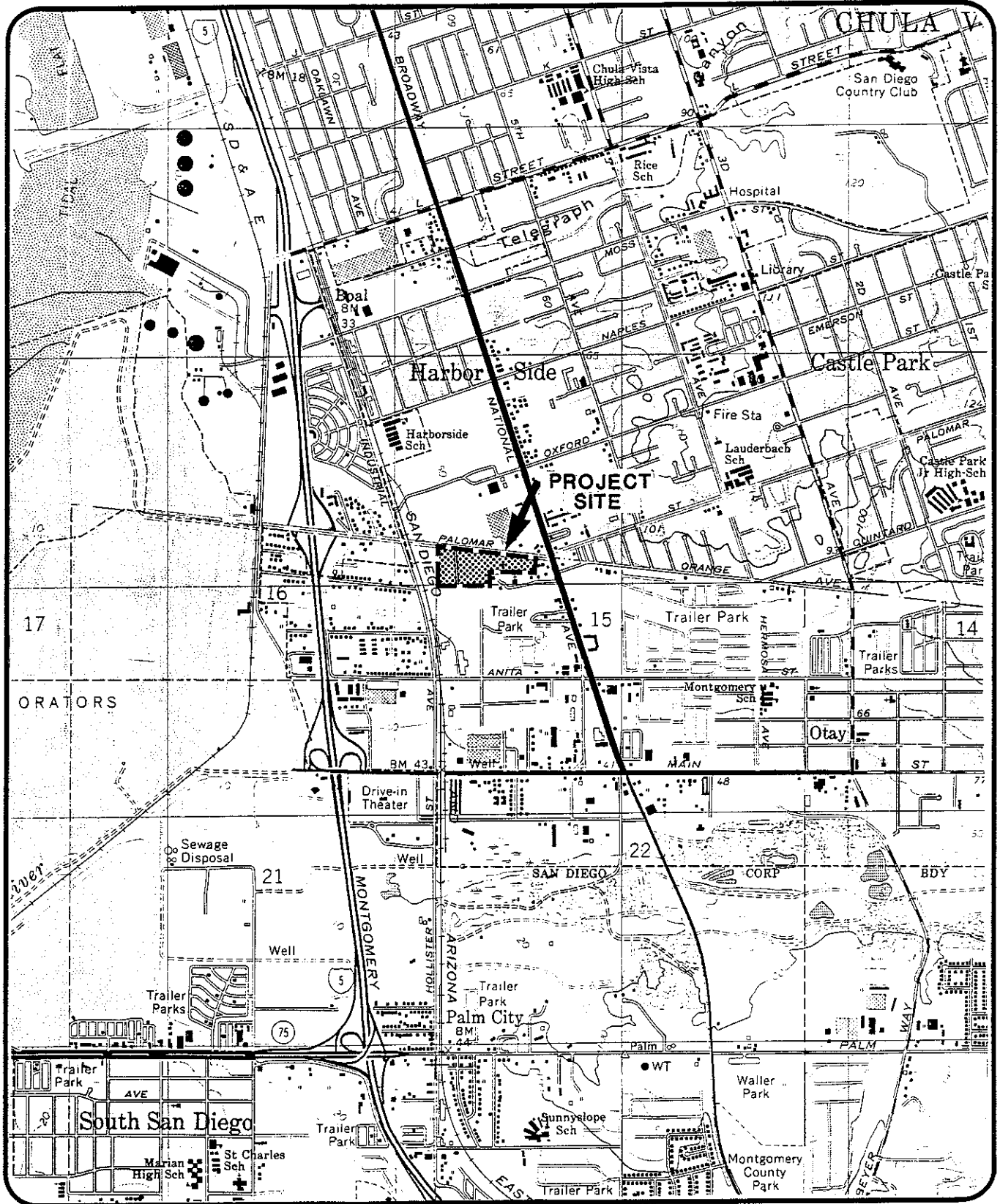
Figure 2.1.1



## Regional Map

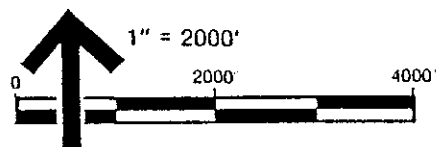
A. D. HINSHAW ASSOCIATES





SOURCE: USGS Quadrangle Imperial Beach

Figure 2.1.2

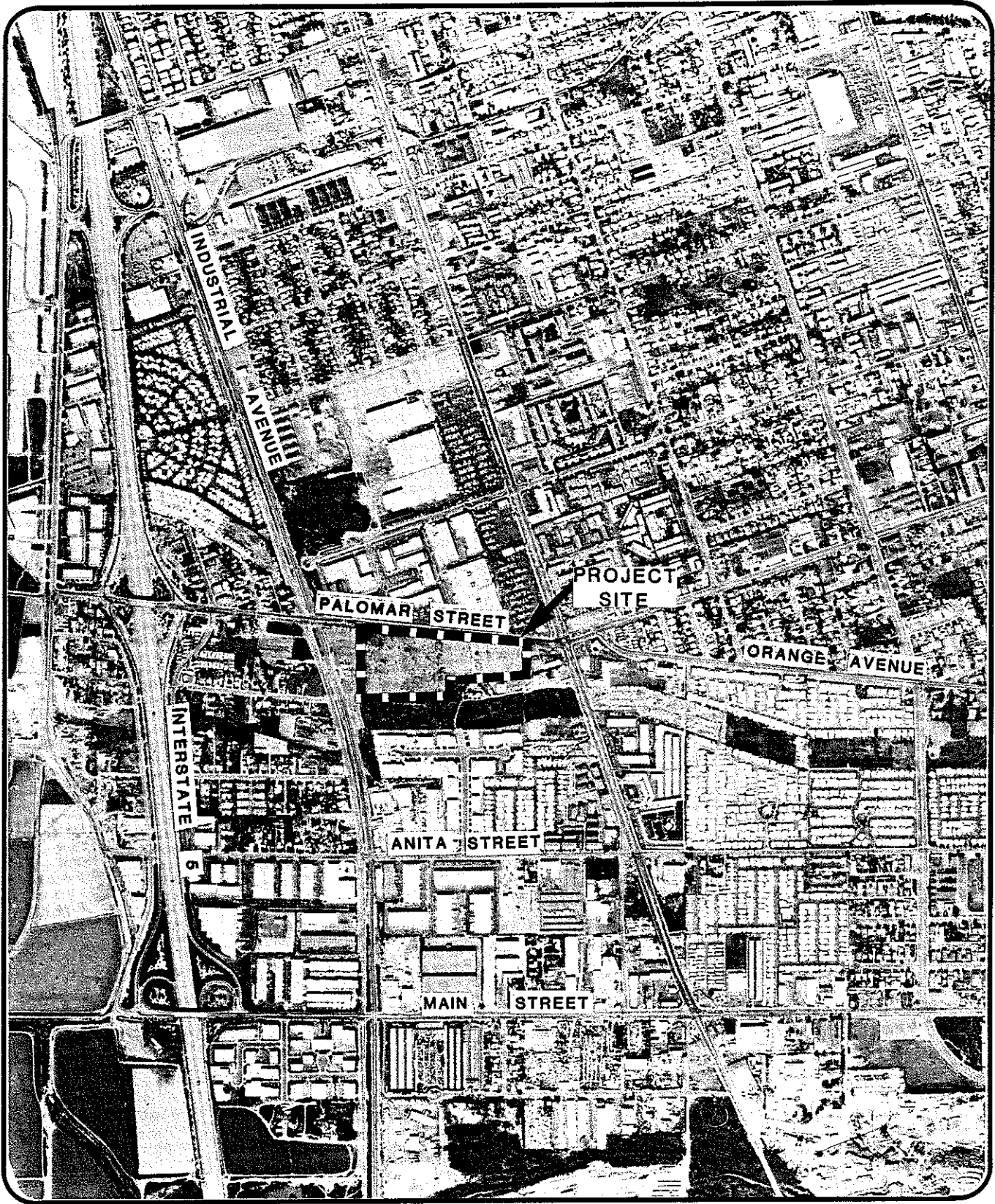


Vicinity Map

A. D. HINSHAW ASSOCIATES

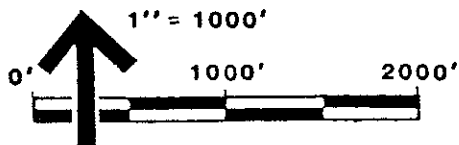






SOURCE: Aerial Fotobank Inc.

Figure 2.1.3



Aerial Photo

A. D. HINSHAW ASSOCIATES



## 2. Zone Change

The Montgomery Community is governed by the San Diego County Zoning Ordinance, as adopted by the City of Chula Vista upon the annexation of Montgomery in December, 1985 [A-2]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2, sect. 2520]. As stated in the County Zoning Ordinance, the Limited Impact Industrial Use zone is intended to "create and preserve areas where manufacturing and industrial uses which evidence no or very low nuisance characteristics may locate", and "to create a community of industries in a high quality industrial park or a strip of low impact industrial uses."

The proposed zoning for the project site is E-N-Neighborhood C-C, Central Commercial Zone, from the City of Chula Vista's standard City Zoning Ordinance [A-3, chap. 19.34]. As stated in the Chula Vista Zoning ordinance, the purpose of this zone is to "provide a shopping center for convenience shopping in a residential neighborhood where analysis of residential population demonstrates that such facilities are necessary and desirable."

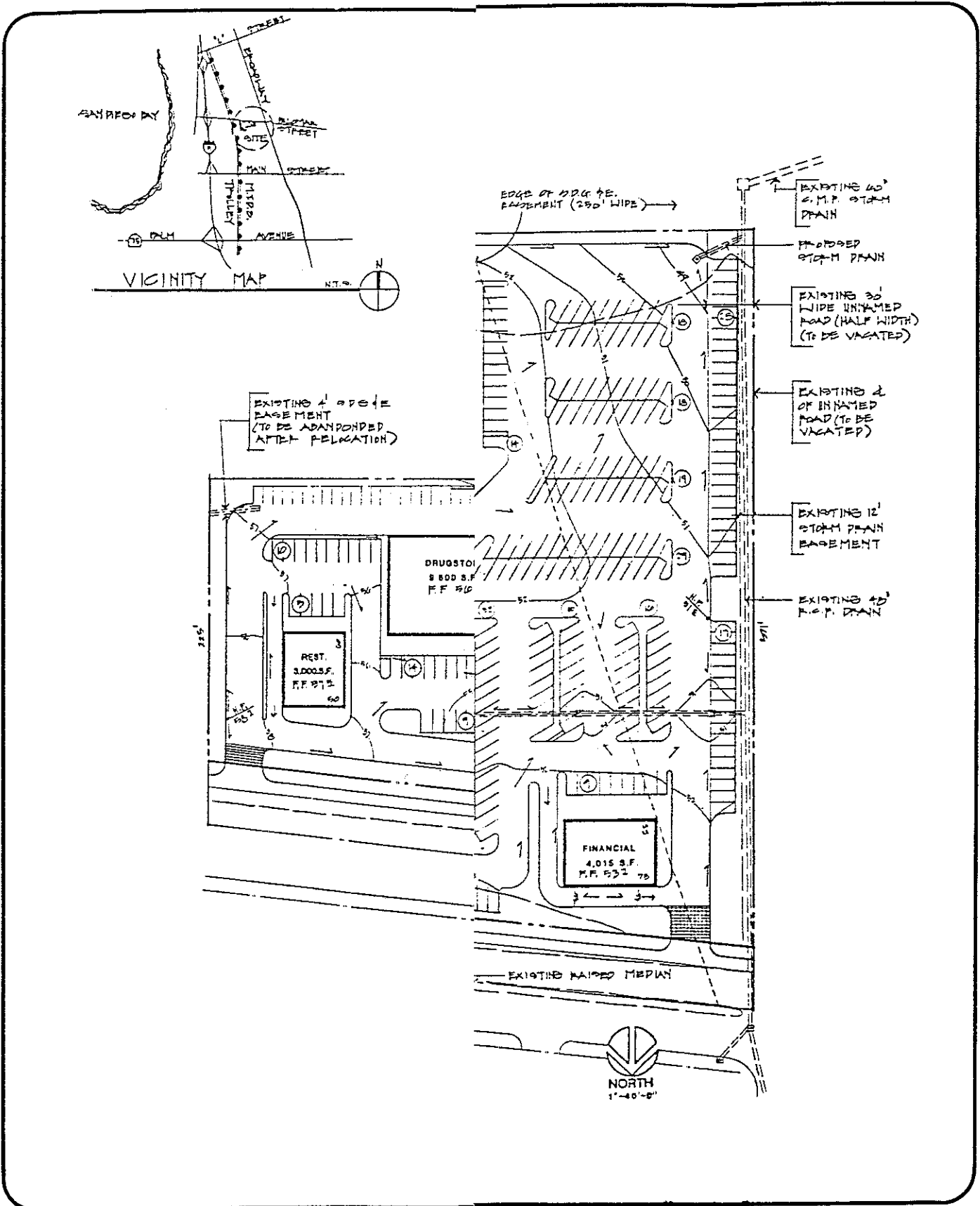
The Montgomery Specific Plan contains a "Table of Translation" which "embodies proposed zoning amendments and changes which are essential to the effective implementation and execution of the Montgomery Specific Plan, and the conversion of Montgomery (from County zoning ordinances) to Chula Vista's standard City zoning. This table lists the General/Specific Plan designations followed by the appropriate County Zoning and suggested City Zoning designations applicable for each designation [A-1]. ~~The proposed zoning, E-N-Neighborhood Commercial, is not listed as a suggested City zone for the Mercantile and Office Commercial Specific Plan Designation and is, therefore, inconsistent with the proposed SPA land use designation according to the Specific Plan (see Appendix B).~~ The suggested City zones for the Mercantile and Office Commercial designation are:

- . C-O, Administrative & Professional Office Zone;
- . C-C, Central/Commercial Zone; and
- . C-T, Thoroughfare Commercial Zone.

## 3. Street Vacations

The preliminary site plan for the proposed project assumes the vacating of two unnamed "paper" streets. The roads to be vacated are a 60-foot wide street bisecting the property and a 30-foot wide road adjacent to the westerly property boundary (see Figure 2.2.1). A request for the vacation of the 60-foot wide street was made by an earlier prospective developer of this property. That proposal was not approved. The City may condition the road vacations to provide access for northbound traffic on Jayken Way should it be extended north across the San



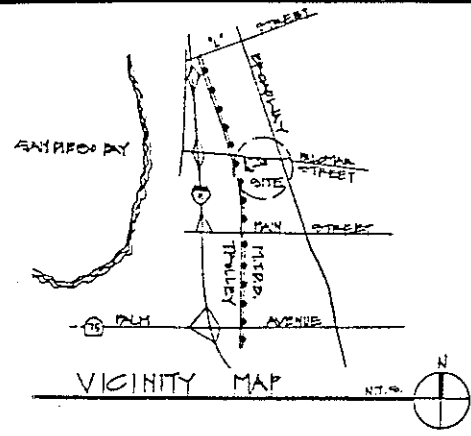


SOURCE: Brown Leary Architecture and Planning

Figure 2.2.1

Site Plan





**RESUME**

SITE AREA - 532,720 S.F.

BLDG. AREA

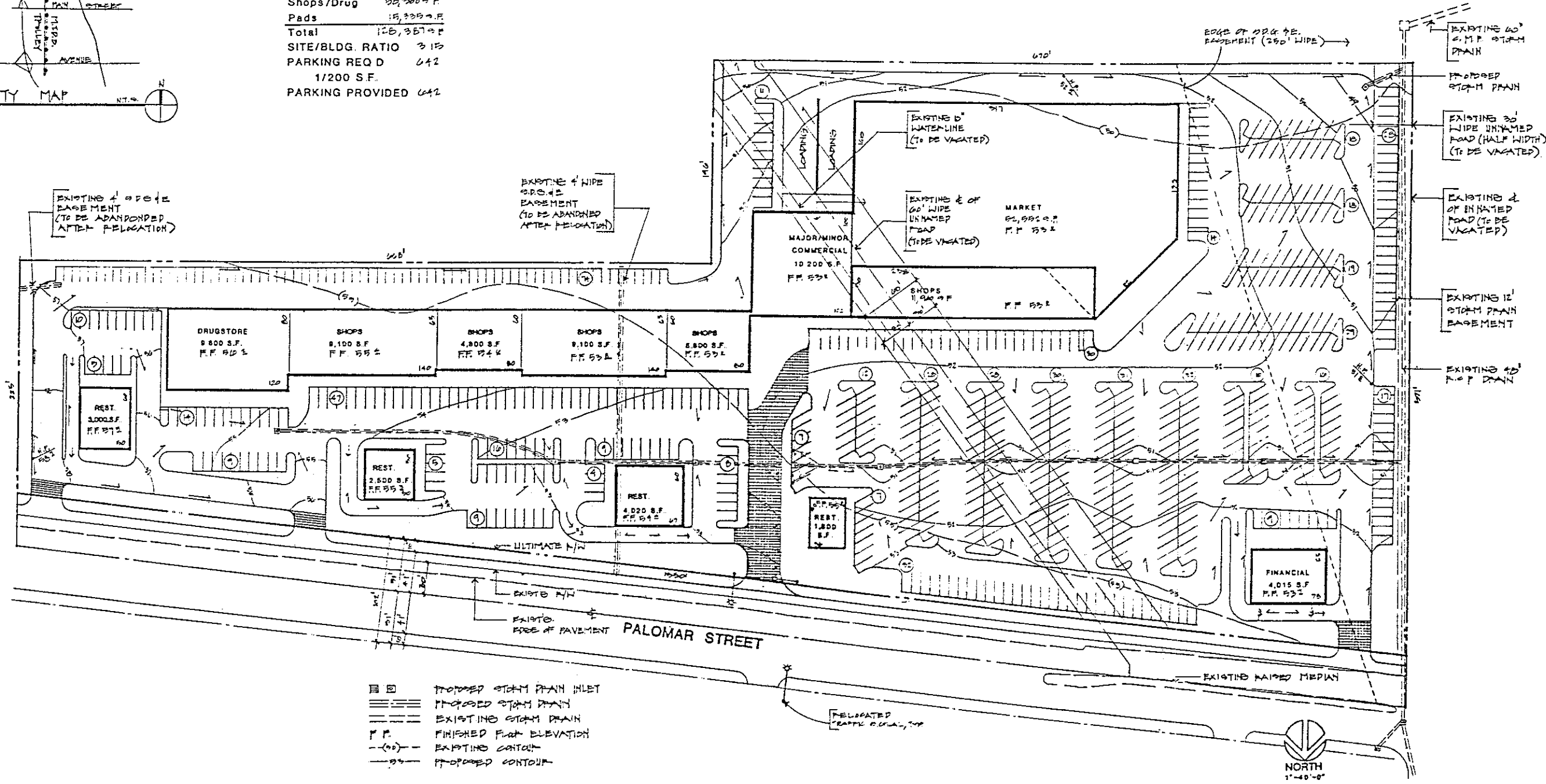
Market	52,552 S.F.
Comm	10,200 S.F.
Shops/Drug	80,700 S.F.
Pads	15,339 S.F.
Total	128,357 S.F.

SITE/BLDG. RATIO 3.15

PARKING REQ D 642

1/200 S.F.

PARKING PROVIDED 642



NOTE: THE ELEVATIONS & DRAINAGE SYSTEM SHOWN HEREON ARE CONCEPTUAL & DO NOT NECESSARILY REPRESENT A DETAILED SITE & ARE SUBJECT TO CHANGE.

SOURCE: Brown Leary Architecture and Planning

Figure 2.2.1

Site Plan





Diego Gas and Electric (SDG&E) right-of-way to the southern boundary of the site; however, the preliminary site plan does not indicate this.

4. Design Review, Grading Permit, Tentative Parcel Map, Site Plan and Architectural Review

The tentative map, site plan and grading plans have not yet been submitted to the City. They would be prepared only if the Specific Plan Amendment and Rezone are approved. When, and if, the plans are prepared and submitted, they would be reviewed by the City's Environmental Review Coordinator. The appropriate environmental documents will be prepared following the review of these documents.

**B. Proposed Improvements**

The Palomar Trolley Center preliminary plan proposes a community shopping center incorporating a total of 128,387 gross square-feet of building space to be constructed on the site (see Figure 2.2.1). The project is proposed to be developed as one phase. The center is planned to include a major supermarket, retail shops and pads for four drive-through restaurants and a bank or other financial institution. A parking ratio of 5 spaces per 1,000 sq. ft. of floor area will result in 642 parking spaces.

The 128,387 square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shop, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 square feet. A major/minor shop would occupy 10,200 square feet, and the five pads would provide 15,335 square feet of space.

The proposed improvements of 128,387 sq.ft. of retail space is larger than the previous proposal submitted to the City. The Traffic Analysis was based upon the original proposal of 127,500 sq.ft. of retail space. The Socio-economic Analysis was based on a revised proposal of 127,365 square feet. The difference of 1,022 sq.ft. between the current site plan and the previous site plan is less than one percent. This difference does not affect the validity of the traffic and socio-economic analyses.

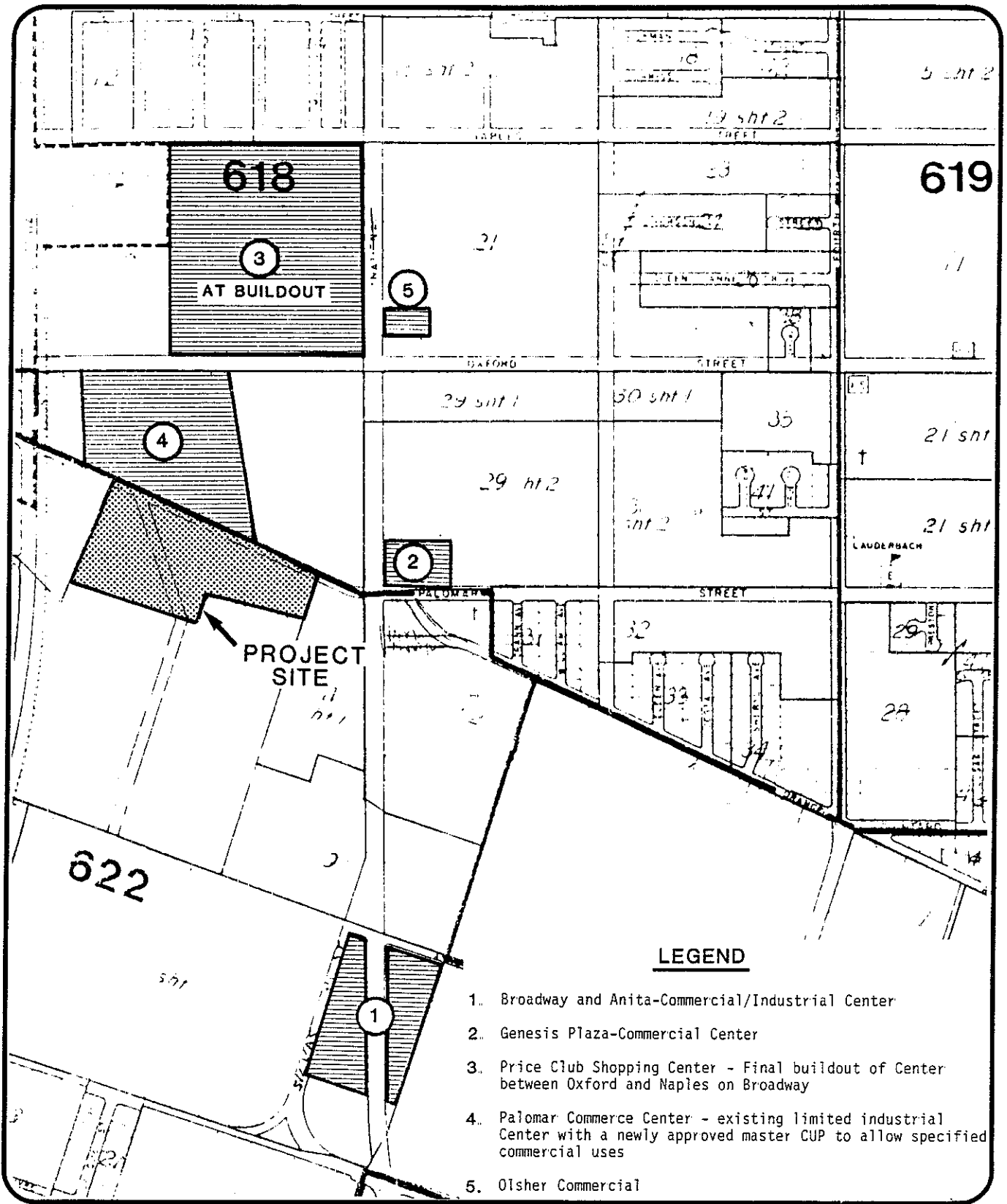
**2.3 RELATED PROJECTS**

Most of the land uses surrounding the project site are commercially and industrially developed. Surrounding land uses include the Palomar Street Trolley station to the west, commercial and limited industrial uses to the north, commercial

uses to the east, and a 250-foot wide SDG&E right-of-way to the south. Industrial and mixed uses are located south of the SDG&E right-of-way.

Five recently approved projects within the vicinity of the proposed Palomar Trolley Center may cumulatively interact with, or be adversely affected by the proposed project. Figure 2.3.1 indicates the location of these projects in relation to the proposed project site. The projects consist of:

1. Anita/Broadway Commercial Center  
Two triangular shaped parcels totaling 7.6 acres located on both sides of the 1600 block of Broadway between Anita Street and Main Street. The western parcel will include 2 commercial buildings totaling 52,626 sq. ft., and the eastern parcel will contain 2 commercial/light industrial buildings totaling 57,582 sq. ft.
2. Genesis Plaza Commercial Center  
Two adjacent parcels totaling 2.16 acres located on the northeast corner of Broadway and Palomar Street. The project will include 3 commercial retail building buildings totaling 26,720 sq. ft.
3. Price Club Plaza Center  
A community shopping center consisting of 4 buildings totaling 291,441 sq.ft. located on the west side of Broadway between Naples Street and Oxford Street.
4. Palomar Commerce Center  
A limited industrial complex consisting of 2 buildings totaling 54,625 sq. ft. on 4.79 acres, located across Palomar Street from the proposed project site.
5. Olsher Commercial Building  
A 9,955 sq.ft. retail commercial building located on a rectangular lot of 31,353 square feet fronting Broadway, approximately 100 feet north of Oxford Street.



**LEGEND**

1. Broadway and Anita-Commercial/Industrial Center
2. Genesis Plaza-Commercial Center
3. Price Club Shopping Center - Final buildout of Center between Oxford and Naples on Broadway
4. Palomar Commerce Center - existing limited industrial Center with a newly approved master CUP to allow specified commercial uses
5. Oisher Commercial

SOURCE: City of Chula Vista

Figure 2.3.1

**Related Projects**

A. D. HINSHAW ASSOCIATES

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### 3.0 ENVIRONMENTAL ANALYSIS

#### 3.1 TRANSPORTATION/ACCESS

A traffic analysis for the proposed Palomar Trolley Center was prepared by Willdan Associates to assess the potential transportation impacts resulting from the construction of the project [A-4]. The report has been reviewed by JHK and Associates (JHK) to verify the study methodology and results for accuracy and to ensure that all relevant transportation issues were addressed in sufficient detail [A-5].

The JHK report review indicates that the Willdan study results are accurate, however, JHK adds additional comments and mitigation measures based upon the new roadway capacity standards developed for the recently prepared City of Chula Vista Circulation Element. This new Circulation Element is currently being released for public review and is anticipated to be adopted within the next six months. The Willdan analysis was based upon the roadway capacities of the current Circulation Element.

This section summarizes the Willdan report and integrates the results of the JHK review. Information added to the analysis by the JHK report is noted. Both the Willdan Analysis and the JHK review are contained in their entirety in Appendix C.

##### 3.1.1 PROJECT SETTING

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley station (see Figure 2.1.2). The project proposes four points of access from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes to relocate the existing traffic signal at the entrance to the trolley station to this central driveway. The site is currently vacant and surrounding land uses consist of commercial and light industrial uses. Regional access to the site is provided by Interstate 5 (I-5) via its diamond interchange with Palomar Street.

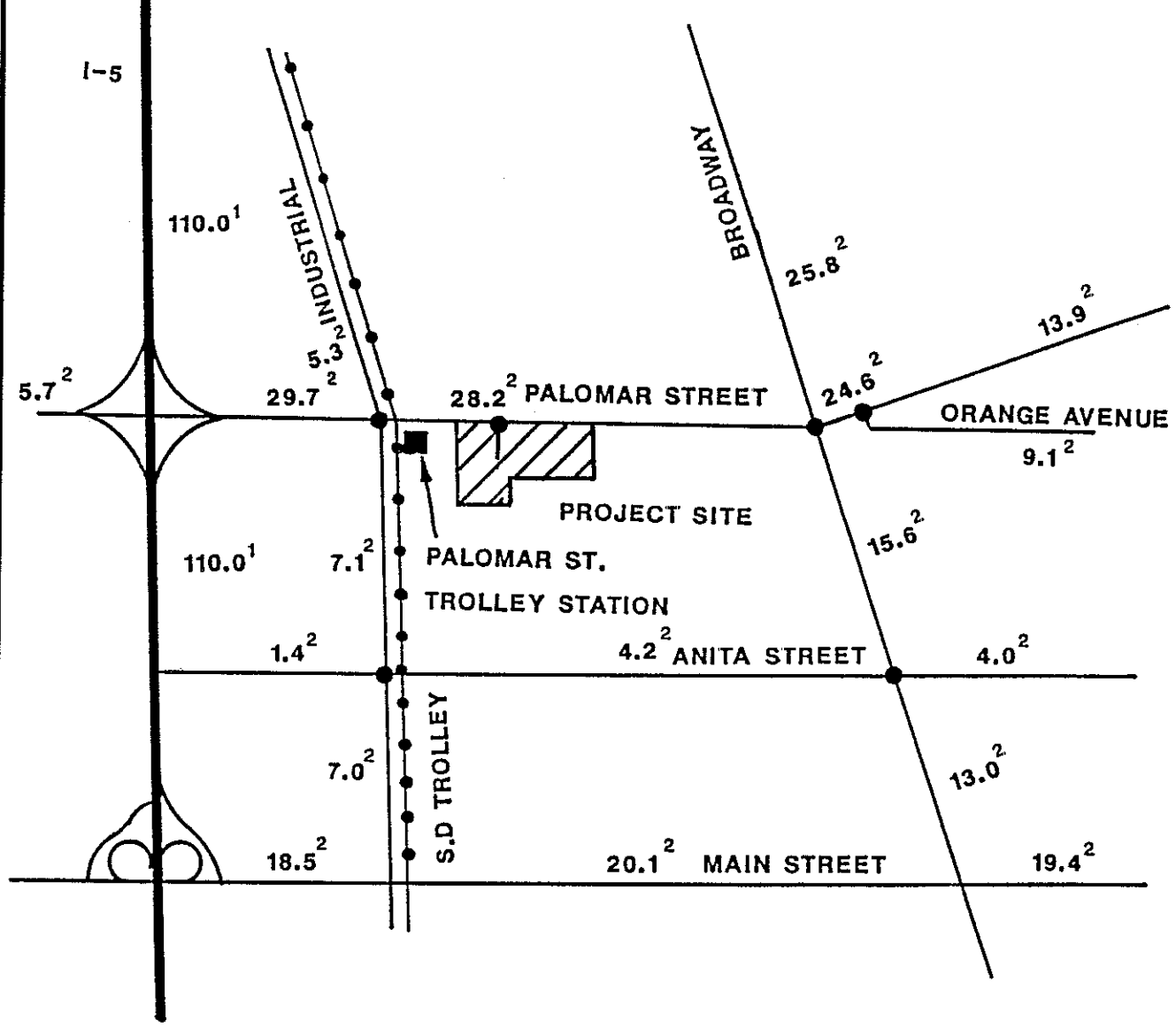
Interstate 5 is a divided eight-lane freeway running north and south through western San Diego County. According to the California Department of Transportation (CALTRANS), the 1987 average annual daily traffic (ADT) on I-5 was 110,000 ADT north and south of Palomar Street (see Figure 3.1.1).

Palomar Street is an east-west major roadway constructed to four travel lanes between I-5 and Orange Avenue. Along the project frontage, Palomar Street is constructed with four travel lanes and a center left turn lane. The intersections of Palomar Street with Industrial Boulevard, the trolley station, and Broadway are controlled by traffic signals. The traffic signal





NO SCALE



SOURCES: CALTRANS<sup>1</sup>  
 CITY OF CHULA VISTA, 1987 TRAFFIC FLOW<sup>2</sup>  
 ● INTERSECTIONS ANALYZED

SOURCE: Willdan Associates

Figure 3.1.1

# Existing Daily Traffic Volumes

A. D. HINSHAW ASSOCIATES





at the Palomar Street trolley station is approximately 380 feet east of the traffic signal at the Palomar Street/Industrial Boulevard intersection.

Palomar Street near the project site is classified as a four-lane major road by the Current Circulation Element. However JHK's review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista indicates this section of Palomar Street is classified as a Class I Collector based on its existing cross section/configuration. This discrepancy in classification is due to the fact that the Circulation Element standards of the new element were not in effect at the time the Willdan report was prepared. The new Circulation Element also classifies the segment of Palomar Street between I-5 and Broadway as a six-lane Major Street in the future. Broadway and Orange Avenue are classified as four-lane Major Streets, and Industrial Boulevard and Anita Street are classified as Class III Collector Streets in the current and new Circulation Element.

According to the latest traffic counts compiled by the City of Chula Vista, Palomar Street carries 29,700 average daily trips (ADT) east of its diamond interchange with I-5. East and west of Broadway, Palomar Street carries 24,600 and 28,200 ADT, respectively.

Broadway is a north-south major roadway running through the City of San Diego (Beyer Boulevard), Chula Vista, and National City (National City Boulevard). In the project vicinity, Broadway is constructed with four travel lanes (plus turn lanes) and has a raised median. Strip commercial land uses front this roadway in the project vicinity. North and south of Palomar Street, Broadway currently (1987) carries 25,800 and 15,600 ADT, respectively.

Industrial Boulevard runs north and south between "L" Street and Coronado Avenue (in the City of San Diego) and acts as a frontage road east of I-5. The San Diego trolley tracks run along the east side of this roadway along its entire length. Industrial Boulevard is constructed with two travel lanes in the project vicinity and carries 5,300 and 7,100 ADT north and south of Palomar Street, respectively.

Anita Street is an east-west two-lane roadway in the project vicinity (with on-street parking) and serves primarily high density residential and industrial land uses. Between Industrial Boulevard and Broadway, Anita Street currently carries 4,200 ADT.

According to JHK's review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista, the segment of Palomar Street between I-5 and

Broadway should be classified as a Class I Collector based on its existing cross-section/configuration. Additionally, the new Circulation Element plan classifies this section of Palomar Street as a six-lane Major Street in the future. The JHK review also states that Broadway and Orange Avenue are classified as four-lane Major Streets, while Industrial Boulevard and Anita Street are classified as Class III Collector Street. These classifications are the same in both the existing and new Circulation Elements.

The project site is well served by public transit. As previously mentioned, the Palomar Street trolley station is adjacent to the project. The San Diego trolley provides service between downtown San Diego and the International Border crossing during the peak and off-peak commuting periods. San Diego Transit Local Route 32 provides service along Broadway, with a connection to the "H" Street trolley station and the International Border crossing. Chula Vista Transit Local Route 702 serves Palomar Street (and the trolley station) and provides a connection to the "H" Street trolley station.

### 3.1.2 IMPACTS

#### Trip Generation

The traffic which will result from the proposed project (as well as other nearby approved projects) has been estimated using accepted trip generation rates and peak hour factors which are based on categories of land uses. These rates have been developed by various agencies and summarized by the San Diego Association of Governments (SANDAG) in their Traffic Generators manual.

According to SANDAG, the 127,500 sq.ft. commercial site will generate 70 trips per 1,000 sq.ft. of gross floor area (GFA) at its driveways. Some of these trips, however, will already be on the street system and are either linked with other trips or stopover trips (also known as "passerby" trips). The City of San Diego has completed research on passerby or linked trips, by conducting detailed surveys at similar sites in the City of San Diego. Linked trips refer to a driver stopping at a commercial establishment on their way home from another trip, then continuing home. Therefore, the trip is already on the street system, and should not be "double counted" by the gross traffic generation rate.

The recommended cumulative or linked trip rate for a community shopping center (100,000 to 300,000 sq.ft. GFA) is 49 trips per 1,000 sq.ft. of GFA. This trip reduction is acceptable to the City of Chula Vista Traffic Engineer.

Table 3.1.1 indicates the trip generation for the project site assuming development under current light industrial zoning. Table 3.1.2 summarizes the generation of expected trips from the proposed project and recently approved projects identified by the City of Chula Vista.

**TABLE 3.1.1  
TRIP GENERATION  
CURRENT ZONING**

PM Peak Hour Land Use	Intensity	Rate	ADT	Trip	
				%	In
Out Light Ind.	12.23 ac	90/ac	1,100	12%	26 106

Source: Wildan Associates

As shown in Table 3.1.2 the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). Nearby approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would be 1,100 ADT, with 132 trips occurring during the PM peak hour (see Table 3.1.2). Therefore, the proposed project would generate an additional 5,148 ADT with 494 PM peak hour trips compared to the current light industrial zoning. Due to the proposed land uses (primarily commercial) the PM peak hour is critical since only a minimal amount of commercial traffic is expected during the AM peak hour. Analyzing the peak hour is important, because this period generally places the highest demand on the surrounding street system.

#### Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks and public buildings. A major element is the interaction between commercial connectors and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site. This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 3.1.2 shows the distribution of trips to and from the proposed project site.

As shown in Figure 3.1.2, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35 and 15 percent north and south along



Table 3.1.2

TRIP GENERATION

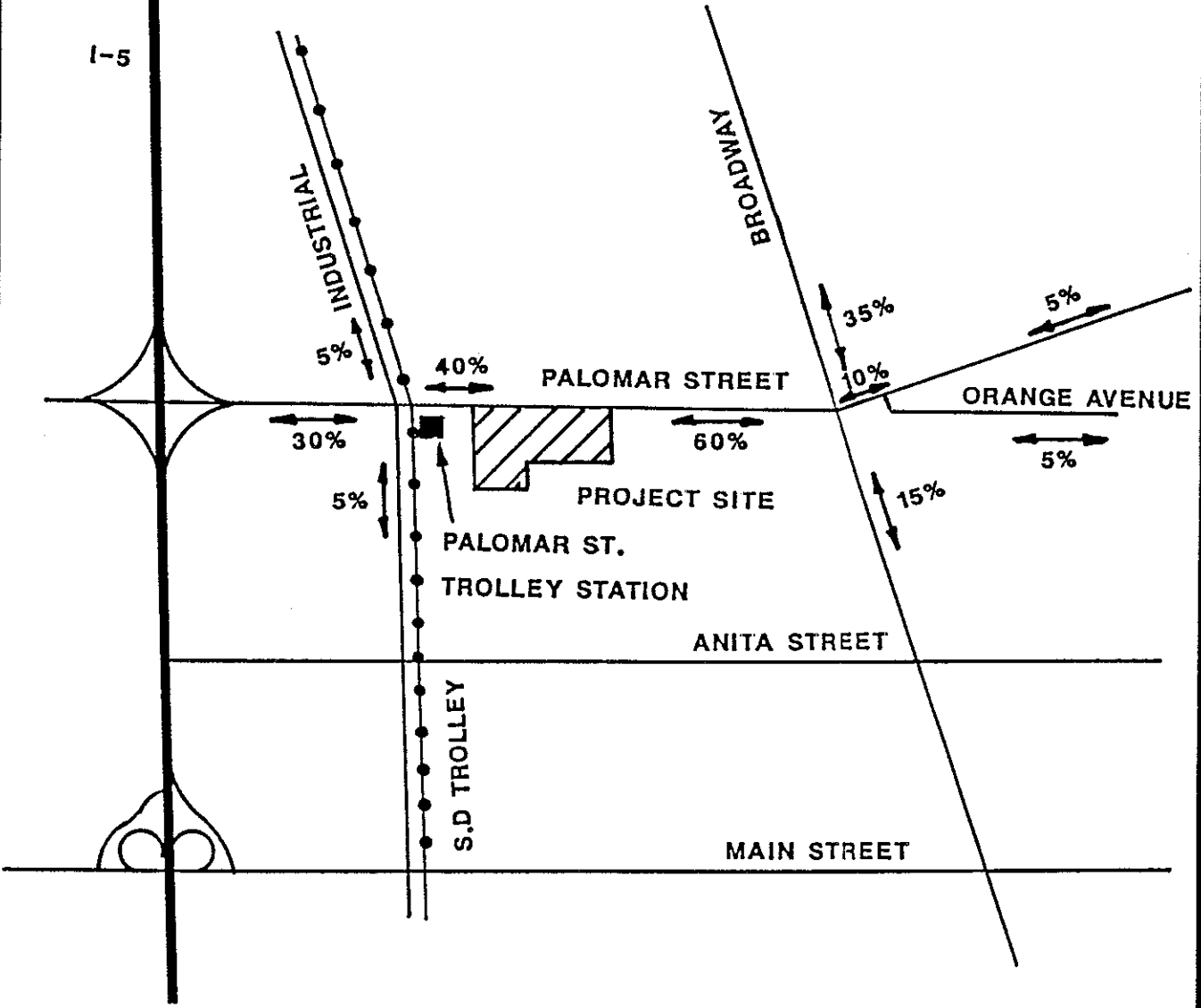
Proposed Project:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>PM Peak Hour Out</u>
Comm.	127,500 sf	49/1,000 (linked)	6,248	10%	313	313
Comm.	127,500 sf	70/1,000 (driveway)	8,925	10%	447	446
Tract 86-18:*						
Comm. Shops	12,000 sf	40/1,000	480	9%	22	22
Light Ind.	54,000 sf	10/1,000	<u>540</u>	15%	<u>16</u>	<u>65</u>
			1,020		38	87
Home Club, Chula Vista:**						
Home Club	109,848 sf	60/1,000	6,590	9%	300	300
Retail	42,625 sf	40/1,000	1,700	9%	80	80
Fast Food	2,529 sf	700/1,000	1,770	8%	70	70
Light Ind.	265,000 sf	8/1,000	<u>2,120</u>	12%	<u>50</u>	<u>200</u>
			12,180		500	650

\* Trip generation data obtained from addendum to traffic study for Palomar Street Home Club, Chula Vista (J. Federhart & Associates, 4-30-87).

\*\* Trip generation data obtained from Traffic Impact Analysis Home Club, Chula Vista, California, Linscott, Law & Greenspan, 10-20-88.





SOURCE: Willdan Associates

Figure 3.1.2

### Trip Distribution

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Broadway, respectively, and 10 percent continuing east along Palomar Street and Orange Avenue. The remaining 40 percent will orient to and from the west along Palomar Street, with 30 percent estimated to access I-5 for destinations north and south.

Figure 3.1.3 shows the assignment of the proposed project's daily and PM peak hour trips. Figure 3.1.4 shows existing ADT plus the proposed project's ADT and other approved projects daily traffic volumes on the surrounding street network. It should be noted that the approved project's daily and PM peak hour trips were assigned consistent with their respective traffic studies. Figure 3.1.5 shows existing traffic plus the proposed project and other approved projects daily traffic volumes assuming the project takes access from the south via Jayken Court to Anita Street.

If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance.

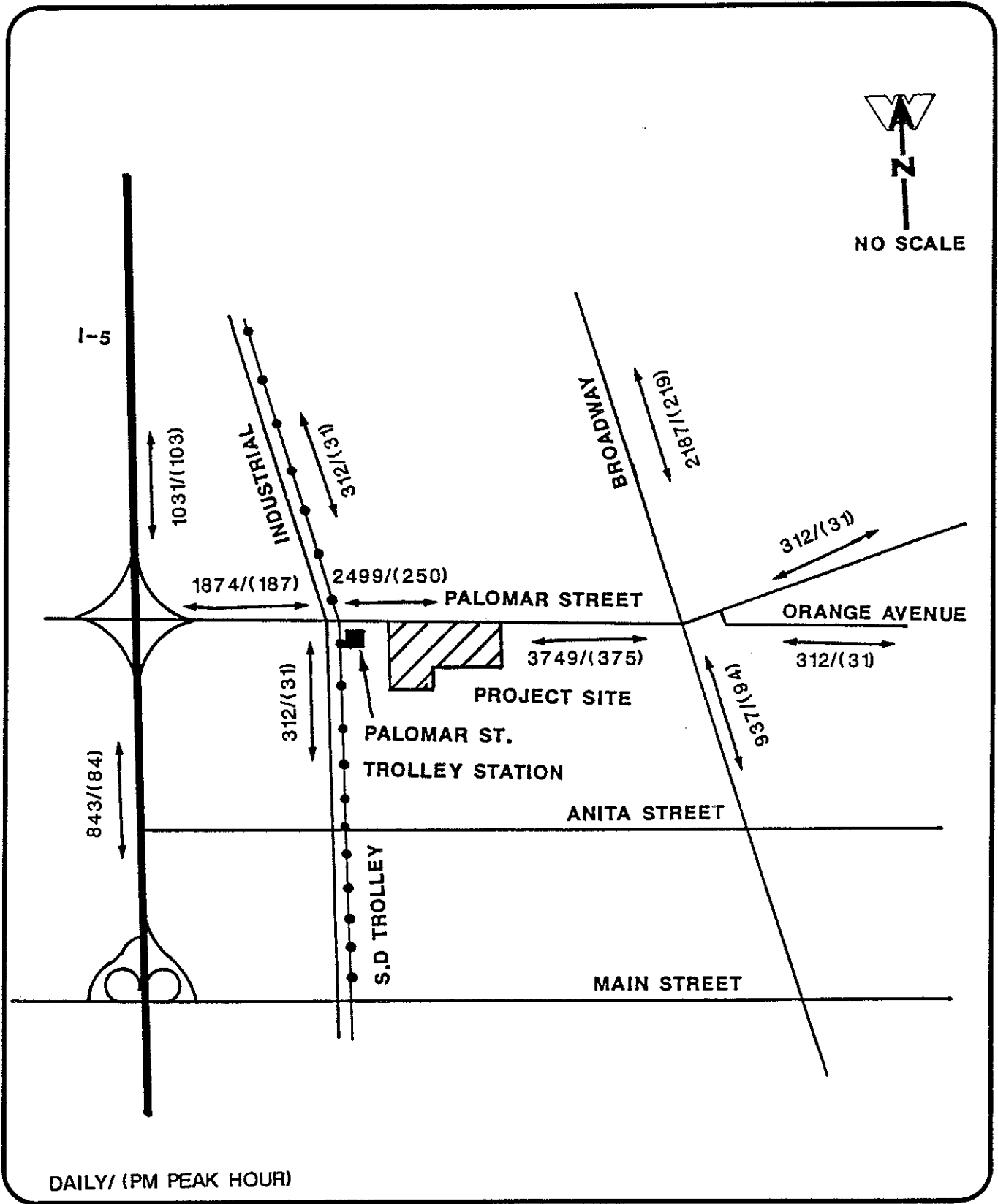
#### Short-term Street Segment Impacts

To assess the short-term impacts of the proposed shopping center on street segment capacities, Willdan utilized the City of Chula Vista Proposed Standard Street Classifications (see Table 3.1.3 which was developed through discussions with the City Traffic Engineer. The classifications are based on the approximate Level Of Service (LOS) C capacities and correlates ADT to levels of service for different road classifications. Table 3.1.4 shows the existing, and existing plus the proposed project and the other approved projects ADT and approximate LOS.

As shown in Table 3.1.4, all roadway segments operate at LOS C or better in the project vicinity under existing conditions. With the addition of the approved projects and the proposed Palomar Center, the LOS on a number of segments will drop to LOS E. This is considered a significant impact.

JHK's review of existing segment volumes utilizing standards in the new Circulation Element indicates that Palomar Street is classified as a Class I collector and is currently operating below LOS C. The approximate ADT volume for LOS C operating conditions on the newly developed Circulation Element are shown in Table 3.1.5.



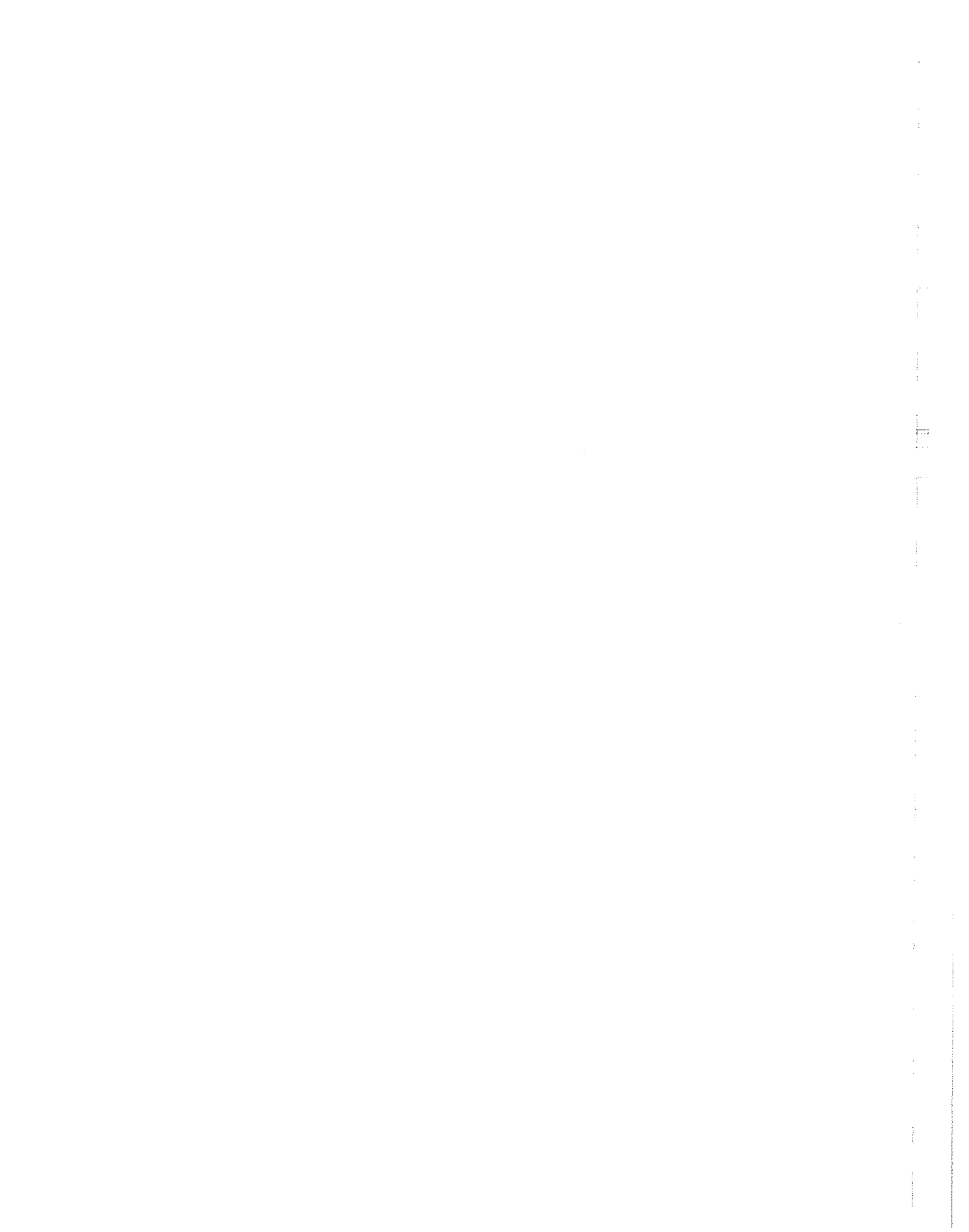


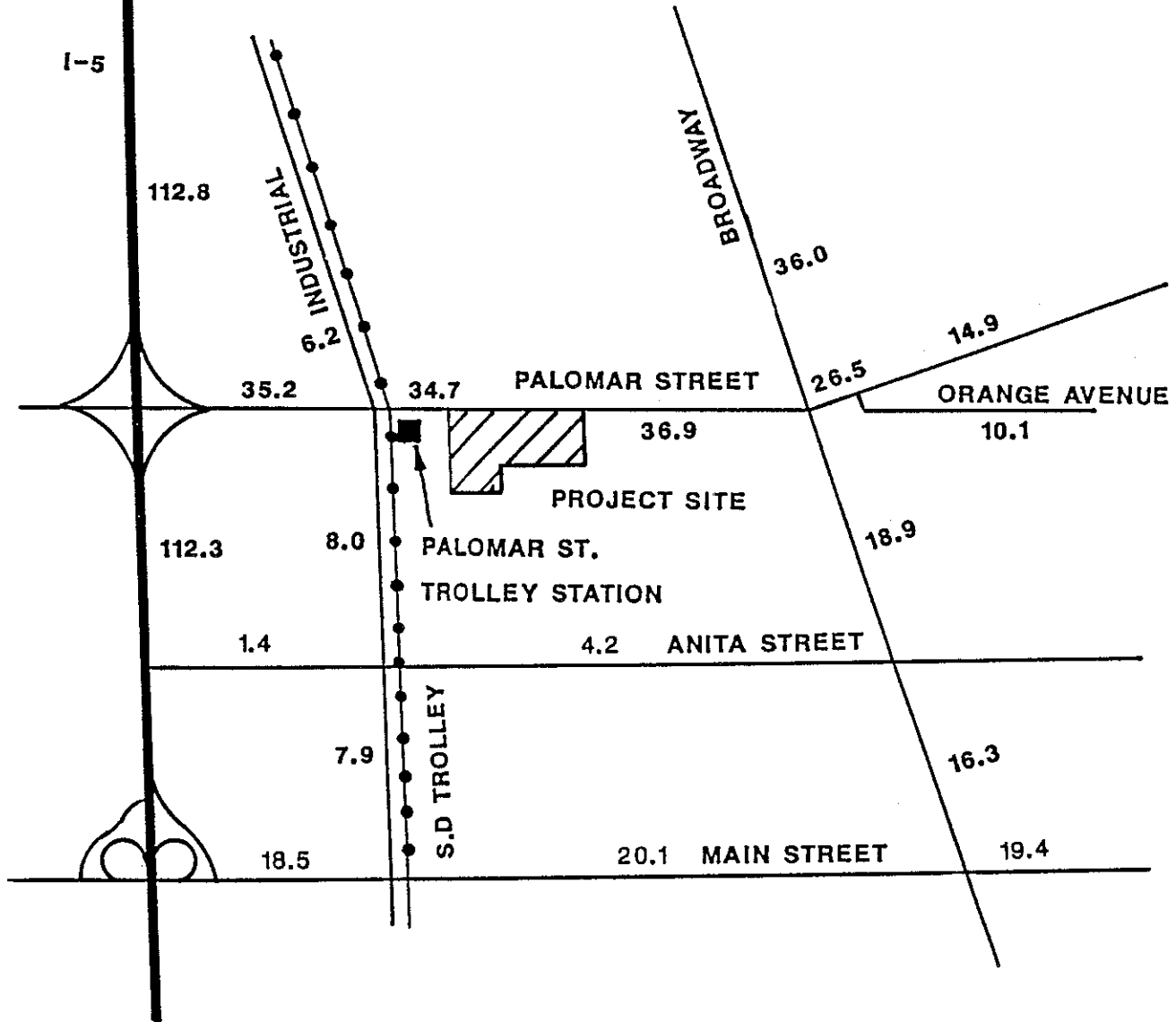
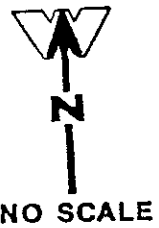
SOURCE: Willdan Associates

Figure 3.1.3

Project ADT with P.M. Peak Hour

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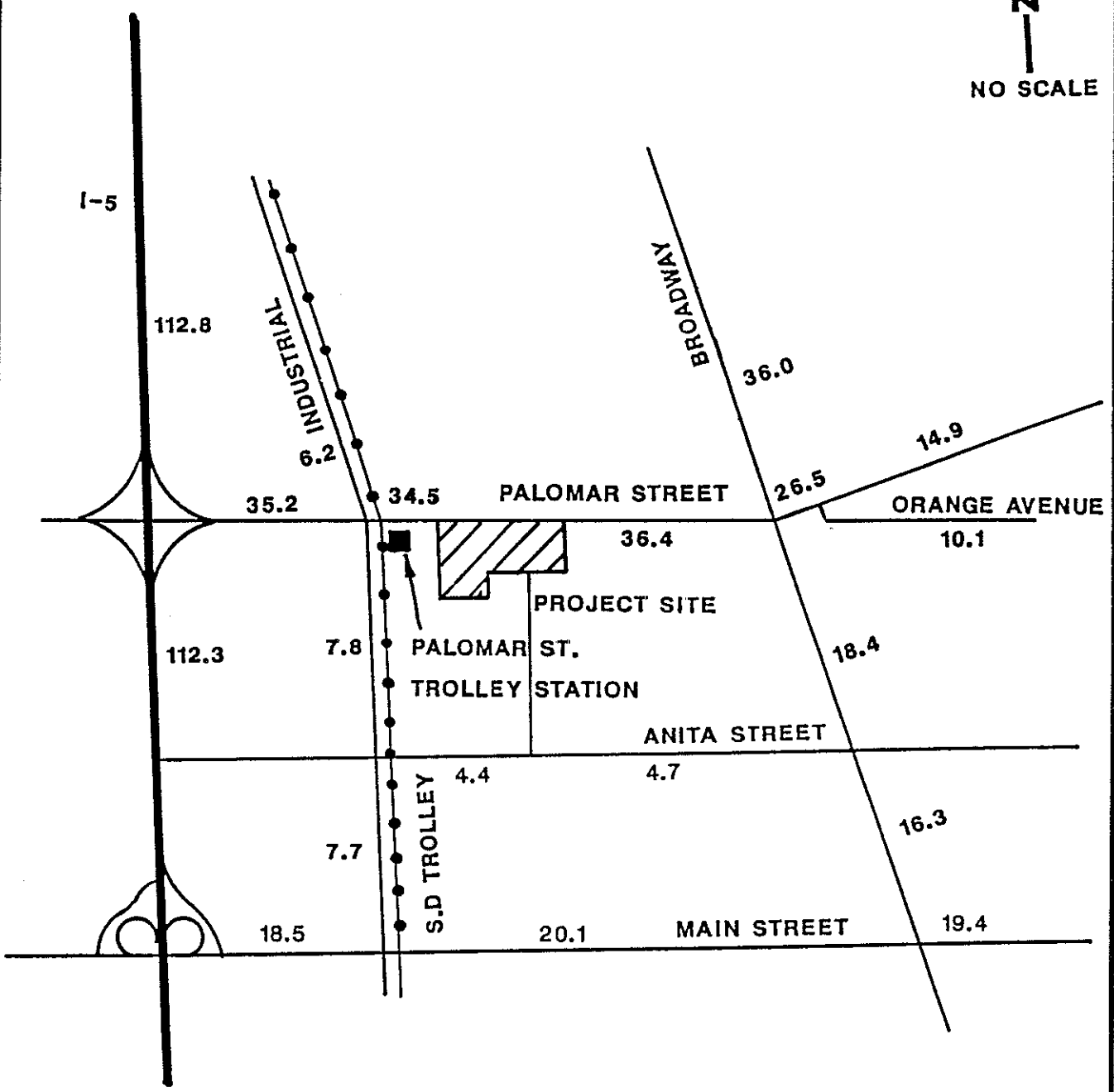
SOURCE: Willdan Associates

Figure 3.1.4

Cumulative ADT

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SOURCE: Willdan Associates

Figure 3.1.5

Cumulative ADT with Jayken Court Access

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**Table 3.1.3**

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION  
AVERAGE DAILY VEHICLE TRIPS

ROAD		LEVEL OF SERVICE				
CLASS	X-SECTION V/C RATIO	A (.6)	B (.7)	C* (.8)	D (.9)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500
Major Road	80/100	22,500	26,300	30,000	33,800	37,500
Collector	<del>72/84</del>	16,500	19,300	22,000	24,800	27,500
Modified Collector	52/72	9,000	10,500	12,000	13,500	15,000
Light Collector	40/60	5,600	6,600	7,500	8,500	9,400

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.



**Table 3.1.4**

Selected Street Segments and Associated Levels of Service  
(volumes in thousands)

<u>Street Segment</u>	<u>Configuration</u>	<u>Existing Volume</u>	<u>LOS</u>	<u>Existing + Project *</u>	<u>LOS</u>	<u>With Access to South*</u>	<u>LOS</u>
<u>Palomar St.</u>							
- I-5 to Industrial	4 lanes	29.7	C (<C)	35.2	E (F)	35.2	E (F)
- Industrial/Trolley Station	"	28.2	C (<C)	34.7	E (F)	34.5	E (F)
- Trolley Station/Broadway	"	28.2	C (<C)	36.9	E (F)	36.4	E (F)
- Broadway/Orange	"	24.6	B	26.5	C	26.5	C
<u>Industrial Blvd.</u>							
- N. of Palomar	2 lanes	5.3	A	6.2	A (B)	6.2	A (B)
- Palomar to Anita	"	7.1	A	8.0	B (D)	7.8	B (D)
- Anita/Main	"	7.0	A	7.9	B (D)	7.7	B (D)
<u>Broadway</u>							
- N. of Palomar	4 lanes	25.8	B	36.0	E	36.0	E
- S. of Palomar	"	15.6	A	18.9	A	18.4	A
<u>Anita St.</u>							
- Industrial/Jayken	2 lanes	4.2	A	4.2	A	4.4	A
- Jayken/Broadway	"	4.2	A	4.2	A	4.7	A

\* Includes trips from approved projects.

( ) LOS using new Circulation Element Roadway Classifications



**Table 3.1.5  
NEW CIRCULATION ELEMENT  
ROADWAY CAPACITY STANDARDS**

<u>Facility Type</u>	<u># of Lanes</u>	<u>Approx. LOS C ADT</u>
Expressway	6	70,000
Six-Lane Prime Arterial	6	50,000
Six-Lane Major Street	6	40,000
Four-Lane Major Street	4	30,000
Class I Collector	4	22,000
Class II Collector	2	12,000
Class III Collector	2	7,500

Source: JHK and Associates

Based on a review of the existing segment volumes in the study area JHK prepared Table 3.1.6 which indicates the classification of the study area streets and details the relationship of existing volumes to the roadway capacities listed in Table 3.1.5.

**Table 3.1.6  
EXISTING STUDY AREA SEGMENT VOLUMES**

<u>Study Area Streets</u>	<u>Facility Type</u>	<u>Existing Volume</u>	<u>Relationship to Capacity</u>
Palomar Street	Class I	28,200	Over
Anita Street	Class III	4,200	Under
Main Street	Class I	20,100	Under
Industrial Blvd.	Class III	7,100	Under
Broadway	Four-Lane Major Street	25,800	Under

Source: JHK and Associates

Palomar Street between I-5 and Broadway is forecasted to carry between 34,700 and 36,900 ADT under existing plus project plus approved project conditions (see Table 3.1.4). This relates to LOS E for the four-lane major roadway classification of the



current Circulation Element. Utilizing the new Circulation Element roadway classifications, JHK determined that Palomar Street will operate at LOS F under the existing plus project approved project conditions.

Based on the classification of Palomar Street in the new Circulation Element as a Six-Lane Major Street from I-5 to Broadway and the daily traffic volumes resulting from the development of this site coupled with volumes from other approved projects, it is apparent that additional roadway capacity will be required in the near-term. The existing volume level on this section of Palomar Street will rise from approximately 28,200 vehicles per day (vpd) to between 34,700 and 36,900 (see Table 3.1.4). The current LOS C operating capacity of Palomar Street is 22,000 vpd and the capacity of the new six-lane major facilities which is planned for this segment is 40,000 vpd. Thus, when the new six-lane roadway cross section is constructed, acceptable Levels of Service will be achieved. Also, the construction of this new cross section may restrict access to the Trolley Station site to right-turns in and out only. This restriction will be dictated by the design of a continuous raised median between Industrial Boulevard and the main signalized entrance driveway to the proposed Trolley Center site. Additionally, the traffic signal relocation described previously will provide optimal signal spacing resulting in improved traffic flow along this section of Palomar Street.

Broadway, north of Palomar Street, is projected to operate at LOS E under existing plus project plus approved project conditions as a four-lane major roadway (see Table 3.1.4). No significant impacts are expected on Broadway south of Palomar Street.

The Willdan report, utilizing the current Circulation Element roadway standards indicates that Industrial Boulevard north of Palomar Street will operate at LOS A. Using the new Circulation Element roadway classifications the LOS for this segment is LOS B. The segments of Industrial Boulevard between Palomar and Anita, and between Anita and Main Street, will operate at LOS B using the current Circulation Element roadway classifications. When the new Circulation Element classifications are used, however, the LOS drops to D (see Table 3.1.4). A determination will need to be made by the City of Chula Vista as to which standards are valid for this project so that developer fees associated with the deterioration of levels of service on roadways in the project vicinity can be determined.

The segment of Palomar Street between Broadway and Orange avenue will also be widened to six lanes as part of the Genesis Plaza Commercial Center Project (see Section 2.3).

Anita Street will continue to operate at acceptable levels of service under existing plus project plus approved projects development in their current two-lane configurations.

Should the proposed project take access to Anita Street via Jayken Court in addition to Palomar Street, similar impacts to those noted above are expected to the nearby street segments.

Short-term Intersection Impacts

Intersections are of particular interest, since the LOS at which an intersection operates is an indication of the travel delay which can be expected. With respect to the Palomar Center, the intersections of interest are Palomar Street/Industrial Boulevard, Palomar Street and the project entry, Palomar Street and the Trolley Station entrance, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. Table 3.1.7 summarizes the projected LOS at during the PM peak hour at these intersections for existing conditions and existing plus project plus other approved projects.

TABLE 3.1.7  
INTERSECTION LEVELS OF SERVICE  
IN THE PROJECT VICINITY

<u>Intersection</u>	<u>Existing LOS</u>	<u>Existing + Project LOS *</u>	<u>With Access Assumed South LOS *</u>
Palomar/Industrial	F	C <sup>1</sup>	C <sup>1</sup>
Palomar/Broadway	B	C <sup>1</sup>	C <sup>1</sup>
Palomar/Orange	A	A	A
Broadway/Anita	A	A	A
Industrial/Anita	A/B	B	B
Palomar/Trolley Station	C	C <sup>2</sup>	C <sup>2</sup>
Palomar/Project Entry	N/A	C <sup>1</sup>	C

\* Includes approved projects

1 With mitigation

2 Assumes unsignalized

Source: Willdan Associates

The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the LOS expected. The method used was specified by the City of Chula Vista assigning hourly lane capacities of 1,700 and 1,500 vehicles per hour of green time for through and turn lanes, respectively, and summing of the critical volumes. The appendix to the Willdan Traffic Report



show these calculations and contain a description of conditions and ranges for the various LOS.

Since the Industrial Boulevard/Anita Street intersection is controlled by a four-way stop, the Multi-way Stop Control Analysis described in "Transportation Research Board Special Report No. 209, Highway Capacity Manual" was utilized to analyze this intersection under existing and existing plus project plus approved projects conditions.

Under existing conditions, the Palomar Street/Industrial Boulevard intersection operates at LOS F during the PM peak hour (see Table 3.1.6). However, if this intersection were improved to accommodate one left, one through, and one right turn lane on the northbound and southbound approaches (with left turn phasing) the LOS would improve to "C". When the proposed project's and approved projects peak hour trips are added to this intersection, the LOS remains at "C".

The Palomar Street/Trolley Station intersection currently operates at LOS C with no north or south left turn passing phasing provided. The project proposes to remove the traffic signal from this location and relocate it to the east to provide improved signal spacing. This will not impact the capacity of the Trolley Station access as it will still operate at LOS C. Left turns from the station will be more difficult, although with signals on either side there should be sufficient gaps to allow these turn movements. Should the project develop under the current light industrial zoning and take access from the existing Trolley Station signal, the resulting LOS would be C. However, the impacts associated with the close signal spacing (to Industrial Boulevard) would be magnified under this scenario.

The project entry will operate at LOS C assuming it is signalized and westbound Palomar Street is improved to accommodate dual left turn lanes. This LOS remains at C if access is provided south to Anita Street via Jayken Court.

The intersection of Palomar Street/Broadway is currently fully phased and operates at LOS B during the PM peak hour. The LOS falls to D under the existing plus project scenario. When the proposed project was assumed to have access to Anita Street via Jayken Court, the LOS remains at D. The LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. When access is also assumed south to Anita Street via Jayken Court, the LOS at this intersection is B. The traffic signals of this intersection and the Palomar Street/Orange Avenue intersection will be interconnected and computer controlled to phase the flow of traffic as part of the Genesis Plaza Commercial Center project. All other intersections operate at LOS B or higher during the PM peak hour under either access scenario.

### Long-Term Impacts

The City of Chula Vista is currently revising their Circulation Element in conjunction with the revision to their General Plan. As part of the Circulation Element update, a series of buildout travel forecasts were performed (with four different density scenarios) to estimate future street classifications required to accommodate travel demand. Preliminary forecast volumes for the street network in the project vicinity indicate future volumes will stabilize at today's levels or decrease. This seems reasonable, because land uses in the project vicinity are virtually at buildout today, and future development in this area would be a result of redevelopment. Also, with buildout of planned land uses in the City's eastern area, some existing traffic could be redistributed. Therefore, the Willdan Study considers the existing plus project plus Chula Vista Tract 86-18 scenario as the worst case analysis. It should be noted, that volumes along I-5 will be much higher than today. This is a result of future development in the Otay Mesa area.

### Access

Primary access to the proposed project is via a central driveway opposite the access to the recently constructed shopping center on the north side of Palomar Street. Three other points of access are proposed, which would be restricted to right turns in and out only (this would be in conjunction with the construction of a raised median on Palomar Street along the project frontage).

These right turn only driveways will handle relatively small volumes of traffic. Since Palomar Street is relatively straight and level, there will be good sight distance from all driveways. The proposed traffic signal will also create gaps in traffic. Therefore, Willdan concludes that these driveways will operate without problems.

JHK notes that an alternate access to the Trolley Center site could be provided via Jayken Way to the south. The project will cul-de-sac the north end of Jayken Way south of the project. The final location of the cul de sac will be determined in a future stage. This alternative point of access would provide internal circulation opportunities for vehicles destined to the Trolley Center from Anita Street and the industrial and commercial developments south of the proposed project.

### Internal Circulation and Parking

The current site plan indicates four points of access to the center's internal circulation system. The central access is via the signalized project entry and three right turn only driveways

to the east. Circulation within the center is provided by an inner loop road around the center. Connecting to the inner loop road are a series of parking aisles. If a southerly access is taken from Anita Street via Jayken Court, internal circulation should be reanalyzed at the time a modified site plan is available.

The plan also indicates four restaurant pads on the north side of the property (adjacent to Palomar Street) which could include drive-through operations. This could significantly affect internal traffic patterns should all four restaurants operate with drive-through windows. Since specific details regarding the restaurant site plan and drive-through operations are not available at this time, they should be evaluated on an individual basis at the conditional use permit stage of approval. At that time, issues such as stacking and site specific internal circulation should be addressed to the satisfaction of the City Traffic Engineer.

The site plan shows 637 parking spaces to serve the 137,500 sq.ft. shopping center. This equates to one parking space for every 200 sq.ft. of GFA. This is consistent with the City of Chula Vista zoning requirements for commercial uses. The spaces are located evenly throughout the site, therefore no parking impacts are anticipated.

#### Summary of Impacts

The proposed Palomar Trolley Center will add approximately 6,250 newly generated ADT to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the proposed project's traffic is added to that of recently approved projects, Palomar Street is projected to operate at LOS E under the existing Circulation Element classification and LOS F under the new Circulation Element classification.

Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects.

### 3.1.3 MITIGATION MEASURES

To mitigate the adverse impacts to the local street network, the following measures are recommended to be implemented:

1. Improve Palomar Street to the Major Street Classification with a raised median along the frontage of the Palomar Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS-E according to the Roadway Classification Standards contained in the Circulation Element, as indicated in the Willdan report. This segment of Palomar Street will not operate at LOS-E until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus, it~~ It is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

~~JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal~~

~~from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection.~~ JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by the provision of a continuous raised median extending along Palomar Street between I-5 and Broadway.

Also, the new signalized intersection at the main entrance driveway to the Trolley Center site should be aligned with the existing access driveway located along the north curb line of Palomar Street in this vicinity. The relocation of the traffic signal to the project entry should provide improved signal spacing and the availability of adequate gaps in the traffic stream. ~~A detailed analysis will provide more insight to these unknown factors.~~

4. Provide an internal connection between the proposed project and the Trolley Station. This will allow left turning vehicles from the Trolley Station to use the Palomar Center's signalized entry to avoid very long traffic delays during the PM peak hour. This configuration would require an access easement agreement ~~or agreement~~ that would perpetuate the public's right to access [B-4].
5. Provide dual left-turn lanes on the westbound approach of the Palomar Street/Project Entry intersection. This will allow the intersection to operate at LOS C during the PM peak hour.

JHK recommends that a raised median be incorporated into the design of the main entrance driveway serving the Trolley Center site. This raised median should be continuous for a distance of approximately 150 feet south of the signalized intersection at Palomar Street.

6. Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection. This will result in LOS C with the Willdan report trip distribution assumption. Under the revised JHK trip distribution and assignment the LOS at this intersection would drop to LOS C. The LOS at all other project intersections would remain constant under this revised trip distribution and assignment scenario. The project will also provide dual left-turn lanes and one right-turn lane on southbound Broadway north of its intersection with Palomar Street. With this mitigation, the LOS at this intersection will meet the City's threshold standards. These intersection improvements may help alleviate some of the existing congestion on the roadway segment of Broadway north of Palomar Street.

7. Conduct a detailed site analyses for the individual restaurants at the time plans are submitted for Design Review. JHK further recommends that the total number of access driveways for this site be reviewed by the City of Chula Vista. This review should concentrate on the specific requirements for individual access driveways and the spacing between access driveways on the Trolley Center site as well as the spacing between Trolley Center driveways and driveways serving other developments along the south curb line of Palomar Street.
8. ~~The project will cut-de-sac--the--north--end--of--Jayken-Way south-of-the-SDG&E-right-of-way,--south-the-project.~~

### 3.1.4 ANALYSIS OF SIGNIFICANCE

The increase in traffic associated with the proposed project and other approved projects in the area will significantly impact the level of service (LOS) on Palomar Street between I-5 and Broadway. This segment would operate at LOS E under the four-lane major road classification of the current City Circulation Element. ~~If--the-new--Circulation-Element--(currently under-review)--classification-of--a-Class--F-Collector-is-applied the-segment-would-operate-at-LOS-F.--This-impact-can-be-mitigated by-improving-Palomar-Street-to-the-ultimate-six-lane-Major-Street classification-of-the-new--Circulation-Element.~~ Improvements to the Palomar Street/Broadway intersection may help alleviate some of the existing congestion on the roadway segment of Broadway north of Palomar Street.

The City's traffic threshold standards are:

1. City-wide: Maintain LOS C or better at all intersections, with the exception that LOS D may occur at signalized intersections for a period not to exceed a total of two hours per day.
2. West of I-805: Those signalized intersections which do not meet Standard #1 above, may continue to operate at their current (1987) LOS, but shall not worsen.
3. City-wide: No intersection shall operate at LOS F as measured for the average weekday peak hour.

These standards will be met if the recommended mitigation measures are implemented. The intersections that would operate below standard without mitigation are Palomar Street/Industrial Boulevard, Palomar Street/Broadway, and Palomar Street/Project entry.

The intersection of Palomar Street/Broadway is projected to fall to LOS D under the existing plus project scenario. This LOS

can be improved to C if eastbound Palomar is improved to accommodate a dual left turn lane. The Palomar Street/Industrial Boulevard intersection currently operates at LOS F during the P.M. peak hour. If the recommended mitigation measures are implemented the LOS will improve to C. The Project Entry intersection with Palomar Street would operate below LOS C unless the intersection is signalized and westbound Palomar Street is improved to accommodate dual left lanes.

### 3.2 COMMUNITY SOCIAL FACTORS

An Economic Impact Analysis for the Palomar Trolley Center was prepared by CIC Research, Inc. to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the proposed project. Of primary concern are retail centers located along Broadway; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis. This section presents the findings of a socioeconomic analysis. The complete study is contained in Appendix D.

#### Methodology and Assumptions

Data collection tasks include both primary and secondary approaches. The primary data gathering involved a detailed survey of retail businesses and centers in the Montgomery Specific Plan area. This survey allowed firsthand observation of business activity levels, traffic and pedestrian circulation patterns. However, the main benefit of this survey was the identification of all retail businesses in the Montgomery Specific Plan area and on-site estimated of gross square footage. This approach was preferred to utilizing the City's computerized data base which provides acreages by Standard Industrial Classification code classifications (SIC). Retail and other observed businesses were then grouped into the categories employed by the State Board of Equalization, which are nearly equivalent to groupings in which consumer demand estimates were generated by National Decision Systems (NDS). The resulting data base, provided both supply and demand estimations, was then analyzed in relation to the changed expected from the subject development.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory, Traffic Analysis for Palomar Trolley Center, and SANDAG Series VII demographic forecasts. Interviews and meetings with City planning and traffic engineering staff allowed CIC to adjust or supplement the published data.

Principal among the assumptions employed in the analysis was that within six months of opening, the subject development would effectively be fully occupied. This assumption was made for three reasons:

1. The primary hypothesis, and purpose of the study, is that the size of the subject center will cause it to be a major element in the area's retail base. It is expected that the center will have at least one anchor



space leased prior to obtaining construction financing and that leasing of other spaces will follow. Thus, it is reasonable to assume a high level of occupancy.

2. This study is not intended to represent a feasibility analysis for the subject development.
3. Only a balanced mix of retail can be assumed to occupy the subject center's non-anchor space. No firm plans have been set determining the eventual tenant mix. Concluding that a certain type of retail should not be represented in the center due to possible over-supply would constitute a feasibility determination, and would also invalidate the original propose of the study which is to identify impacts to other businesses and facilities resulting from development of the subject site.

The 127,365 square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shop, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 45,280; miscellaneous shops and a drug store would comprise 51,750 square feet. In-line shops would occupy 15,000 square feet, and the five pads would provide 15,335 square feet of space (see Figure 3.2.1).

Four points of access are planned from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes relocating the existing traffic signal at the entrance to the trolley station to this central driveway.

Development of the study site as proposed would increase the importance of the Palomar/Broadway commercial node as a shopping district. Interaction with existing retail at the Ralphs/Target center (225,900 square feet) directly to the north, and the Price Club center's 291,400 square feet, together with retail projects along Broadway will create a synergistic relationship from which the subject site may benefit. The current 28,200 average daily trips (ADT) passing the site would also support retail businesses, and, unlike other centers in the immediate area, the center is elongated as it fronts on Palomar Street, providing a high degree of visibility to the project.

The factors described above combine to create a situation that favors the viability of the subject development, and all other things being equal, could draw sales away from other nearby businesses. The remainder of this section analyzes the potential competition and impact from the planned center.



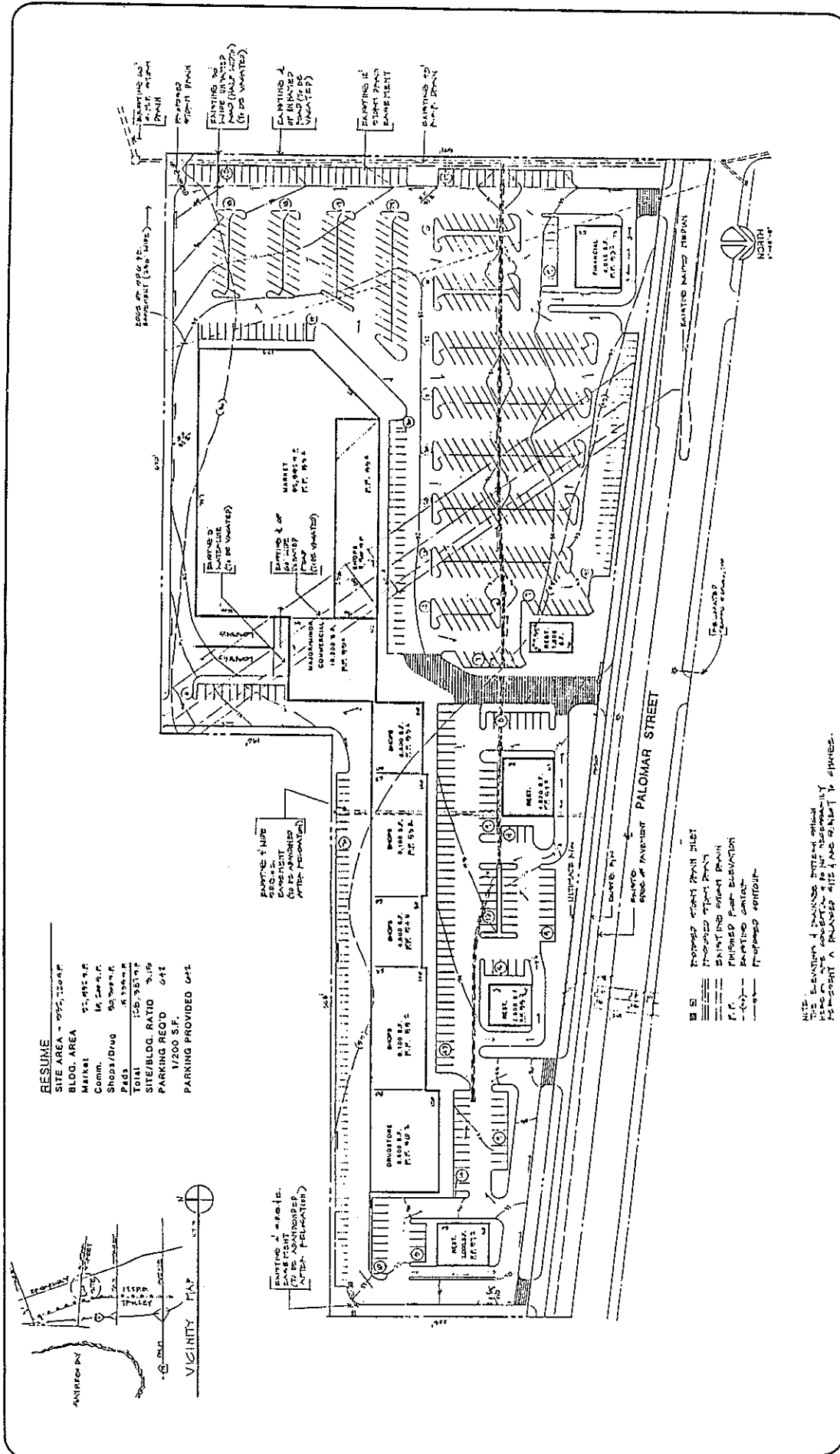


Figure 3.2.1  
Site Plan

A. D. HINSHAW ASSOCIATES

SOURCE: Brown Leary Architecture and Planning



The proposed development would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Alternatively, depending on the chosen tenants, the site could represent a community shopping center with an off-price department store as the principal anchor.

Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area generates from 15 to 20 percent of sales and could extend the trade area to a 3.0 mile radius.

Community centers are typically developed around a department store or a large variety store ranging from 100,000 to 300,000 square feet with a site area of 10 to 30 acres. The primary trade area generally extends three to five miles. The secondary trade area can extend the trade area to a seven to ten mile radius.

Given the large amount of nearby community-sized shopping centers, the market area is expected to draw support from a customer base of approximately three miles.

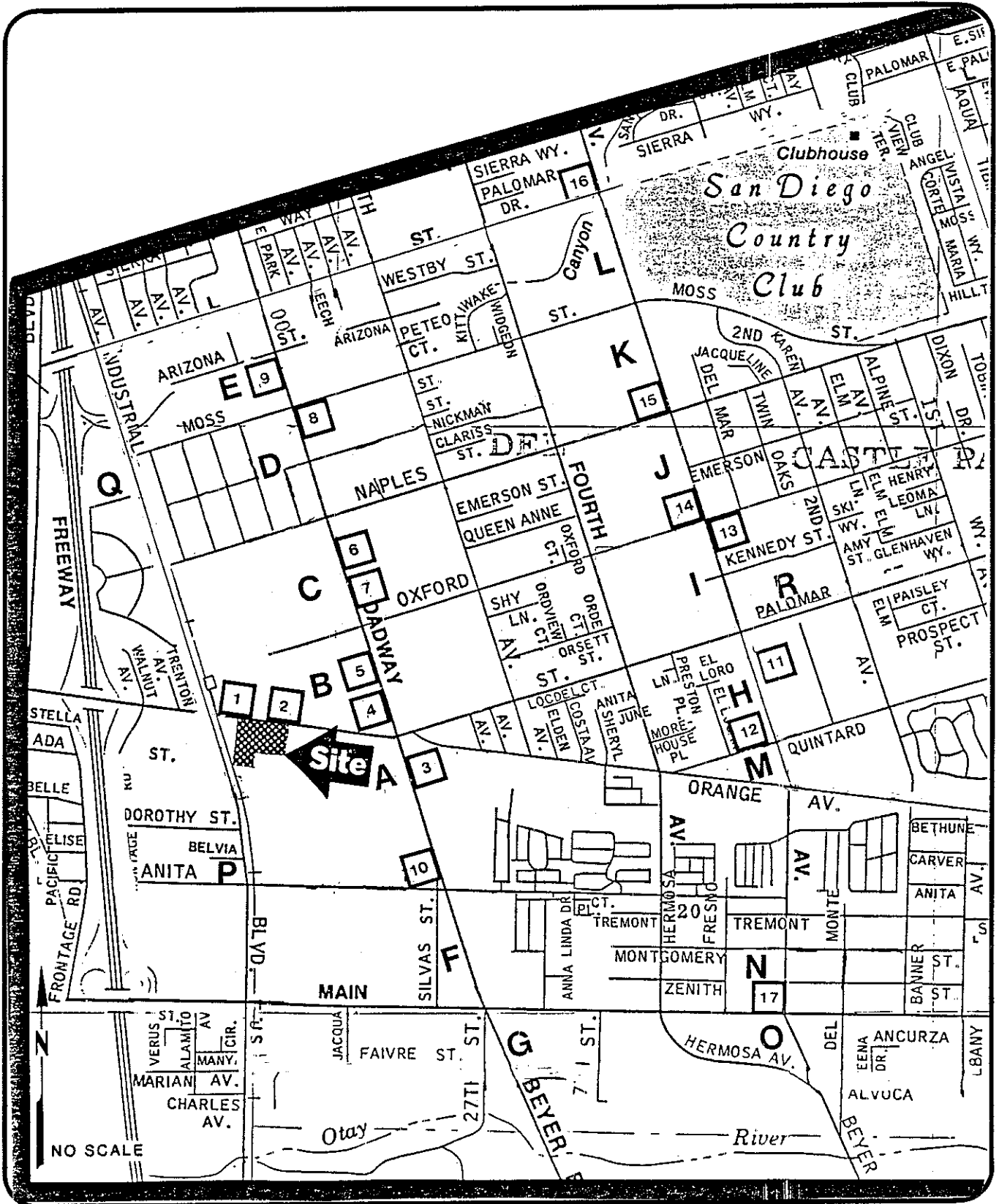
### 3.2.1 PROJECT SETTING

A determinant of the market impact area is the location of competitive retail space in relation to the proposed development. CIC Research conducted a windshield survey to locate, classify and measure all existing retail establishments within the Montgomery Specific Plan area (see Figure 3.2.2). The retail locations are graphically presented in Figure 3.2.2 by retail center and by blocks of freestanding and strip retail space. The following paragraphs detail specifics for each center and block in terms of estimated square feet by retail classification.

Based on two possible combinations of the envisioned tenant types for the subject development and the location of potentially competitive projects, CIC determined the potentially impacted retail areas to include Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway Street clearly represents the largest retail market with a total of 830,378 square feet, of which 661,896 are classified as anchored retail centers ranging in size from 6,000 to 290,000 square feet. Third Avenue

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SOURCE: CIC Research, Inc., 1988

Figure 3.2.2

## Existing Retail Centers

A. D. HINSHAW ASSOCIATES

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represents the second largest retail market with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of anchored retail space in centers and 11,600 square feet of freestanding or small strip space centers. These three streets represent the majority of retail developments that may be potentially physically impacted due to an oversupply of retail space caused by the development of the subject property.

#### Traffic Patterns and Volumes

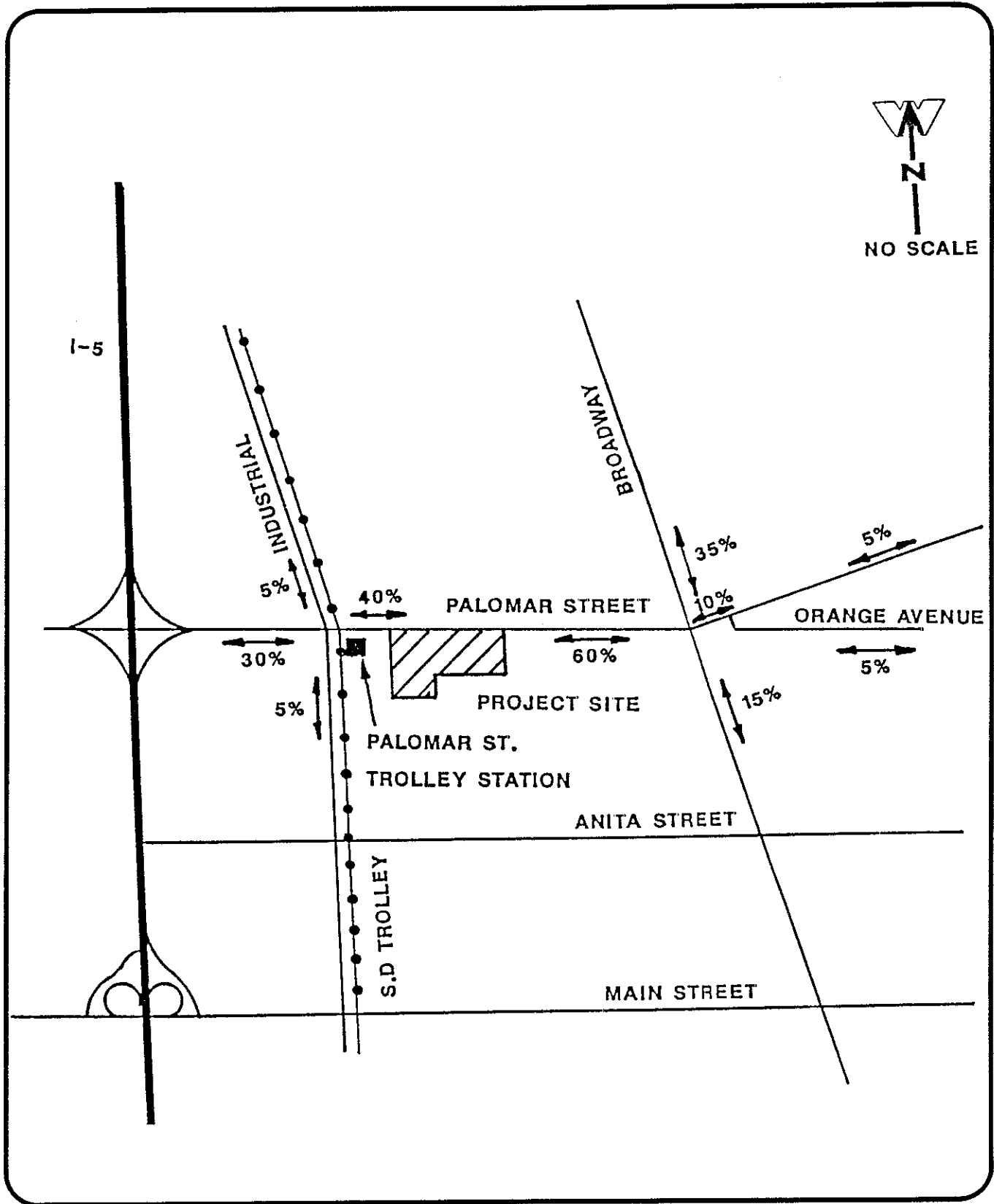
Traffic distribution for the proposed project (see Figure 3.2.3) was determined by Willdan Associates and confirmed by JHK and Associates. The majority of trips (60%) are projected to be generated from traffic originating from the east along Palomar Street and only 15 percent will orient from Broadway south of Palomar. This would indicate that retail developments along Broadway north of Palomar will have higher potential to be impacted both positively and negatively by the proposed development than retail developments along Broadway south of Palomar. Only ten percent of the traffic to the site is projected to orient from Palomar and Orange Avenue east of Broadway, indicating a potentially slight impact on retail development along Third Avenue.

A projected 40 percent of the traffic to the site will orient to and from the west. Of this 40 percent, ten percent will orient from Industrial Boulevard, which has virtually no competitive retail space. An estimated 30 percent of the traffic to the study site will orient to and from Interstate 5. Interstate 5 (I-5) travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. However, it can be assumed that trip origins would be concentrated in proximity to the site with less frequency at greater distances from the Palomar Street interchange with I-5.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exits are presented in Table 3.2.1. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

Palomar Street between I-5 and Industrial Boulevard has experienced the highest percentage change in traffic volumes from 1986 to 1987 (26.9%). The traffic patterns indicates Palomar Street is the major western entrance to the Montgomery Specific Plan area. The major traffic routes within the market impact area includes Palomar east to Broadway and north on Broadway.





SOURCE: Willdan Associates

Figure 3.2.3

### Traffic Distribution

A. D. HINSHAW ASSOCIATES



### Table 3.2.1

AVERAGE DAILY TRAFFIC VOLUMES  
(in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>% Change 1986-1987</u>	<u>% Change 1983-1987</u>
<b>Broadway</b>							
L Street & Naples Street	18.6	18.6	18.6	23.2	25.9	11.6%	39.2%
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	18.8	43.2
Palomar Street & Main Street	12.8	12.8	12.8	16.4	15.6	-4.9	21.9
<b>Industrial</b>							
Naples Street & Palomar Street	4.3	4.3	3.9	5.6	5.3	-5.4	23.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	-6.6	65.1
<b>Main Street</b>							
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	11.7	37.7
<b>Orange Avenue</b>							
Melrose Avenue & Interstate 805	17.9	18.8	18.8	18.8	23.2	23.4	29.6
<b>Otay Valley Road</b>							
Melrose Avenue & Interstate 805	14.0	14.0	14.0	14.9	18.9	26.8	35.0
<b>Palomar Street</b>							
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4	23.4	29.7	26.9	39.4
Industrial Blvd. & Broadway	22.0	22.0	22.1	22.9	28.2	23.1	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	-6.1	10.3
Fourth Avenue & Third Avenue	13.5	13.5	13.5	13.9	14.0	0.7	3.7
Third Avenue & Hilltop Drive	11.6	11.6	11.6	12.1	12.4	2.5	6.9
<b>Telegraph Canyon Road</b>							
L Street & Interstate 805	28.4	28.4	28.4	30.7	37.5	22.1	32.0
<b>Third Avenue</b>							
L Street & Moss Street	19.0	22.0	22.7	22.7	21.6	-4.8	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5	21.1	2.9	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7	19.7	19.6	-0.5	-2.0
Palomar Street & Quintard St.	15.6	15.6	15.6	15.9	18.0	13.2	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	5.8	15.9

Source: San Diego Association of Governments  
CIC Research, Inc., 1988



Broadway, extending north from Palomar Street to Naples Street and to L Street, experienced the largest traffic increase from 1986 to 1987 (18.8% and 11.6%, respectively) compared to the southern section of Broadway (Palomar Street to Main Street) with traffic decreasing 4.9 percent during the same period.

The percentage changes (1986 to 1987) in traffic volumes on the southern section of Third Avenue at Palomar Street/Quintard Street and Quintard Street/Main Street are greater (13.2% and 5.8%, respectively) than the northern section at Oxford Street/Palomar Street, Naples Street/Oxford Street, and L Street/Moss Street (-0.5%, 2.9% and 4.8%, respectively). However, in terms of actual numbers, the northern section has higher recorded traffic counts than the southern sections of Third Avenue.

The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1987 ADT volumes ranging from 15,600 to 27,900 as compared to Third Avenue which ranges from 14,600 to 21,600. Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

#### Demographic Profile

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Table 3.2.2 and 3.2.3). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway. A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within the primary market area (1.5 mile radius) the population is projected to grow at 0.1 percent per year from 30,258 in 1988 to 30,413 in 1993 (see Table 3.2.2). The 3.0-mile radius is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. These growth rates represent the slowest population increases in the four categories. Also, housing unit projections from 1988 to 1993 for the 1.5 mile radius represent the slowest growth (0.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile radius. Again, these areas represent the slowest growth compared to the 5.0 or 10.0 mile areas. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table 3.2.3. The income level within a trade area is important not only in terms of total dollars available, but also in relation to spendable income by retail category. The 1.5-mile radius has the lowest average





**Table 3.2.2**

MARKET AREA POPULATION AND HOUSING ESTIMATES

	<u>1980</u>	<u>1988</u>	<u>1990</u>	<u>1993</u>	<u>Annual Percentage</u>	
		<u>Estimate</u>	<u>Estimate*</u>	<u>Estimate</u>	<u>Change</u>	<u>1988-93</u>
Population:						
1.5-mile distance	30,512	30,258	30,336	30,413	(.06)%	.1%
3.0-mile distance	144,540	164,919	171,748	178,576	1.7	1.6
5.0-mile distance	210,985	252,223	265,719	279,215	2.3	2.1
10.0-mile distance	514,576	606,458	635,945	665,431	2.1	1.9
Housing Units:						
1.5-mile distance	11,748	12,908	12,956	13,004	1.0	.2
3.0-mile distance	48,416	57,449	59,936	62,423	2.2	1.7
5.0-mile distance	70,384	86,301	91,015	95,729	2.6	2.1
10-mile distance	166,511	203,670	215,030	226,390	2.6	2.1

\*1990 estimates by CIC Research, Inc.

Source: National Decision Systems



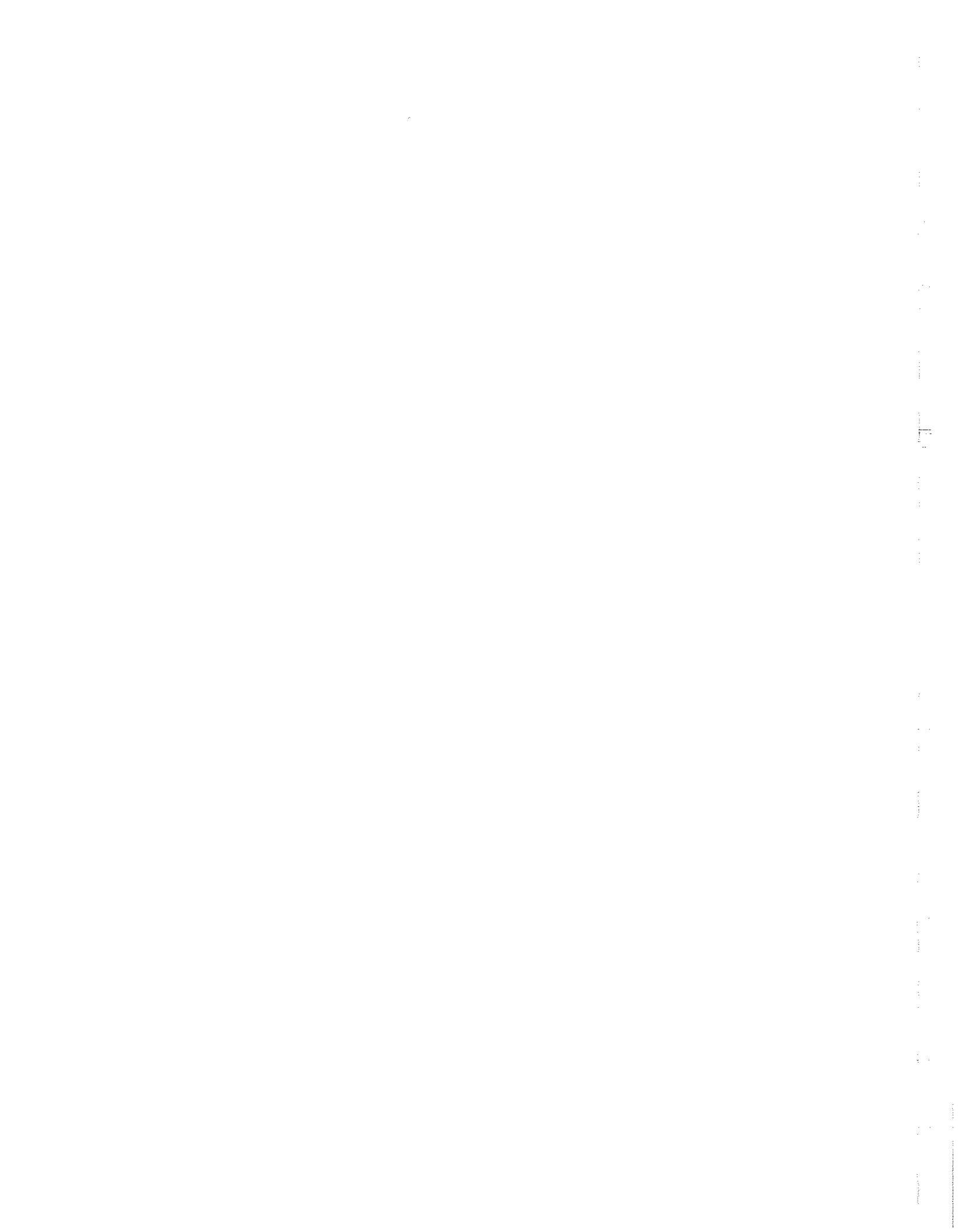
Table 3.2.3

MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile</u> <u>Distance</u>	<u>3.0 Mile</u> <u>Distance</u>	<u>5.0 Mile</u> <u>Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems



household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). Within the 1.5 mile radius the majority (53%) have annual household incomes ranging from \$7,500 to \$24,999, whereas the 3.0 mile radius has only 39 percent of the population within the same income range. The population within the 1.5 mile radius will spend a higher proportion of household income on food, compared to the 3.0 or 5.0 mile radii, due to the lower average household income. On the other hand, the residents within the 3.0 and 5.0 mile areas will spend a higher proportion of their income on nonfood items. The income level of trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

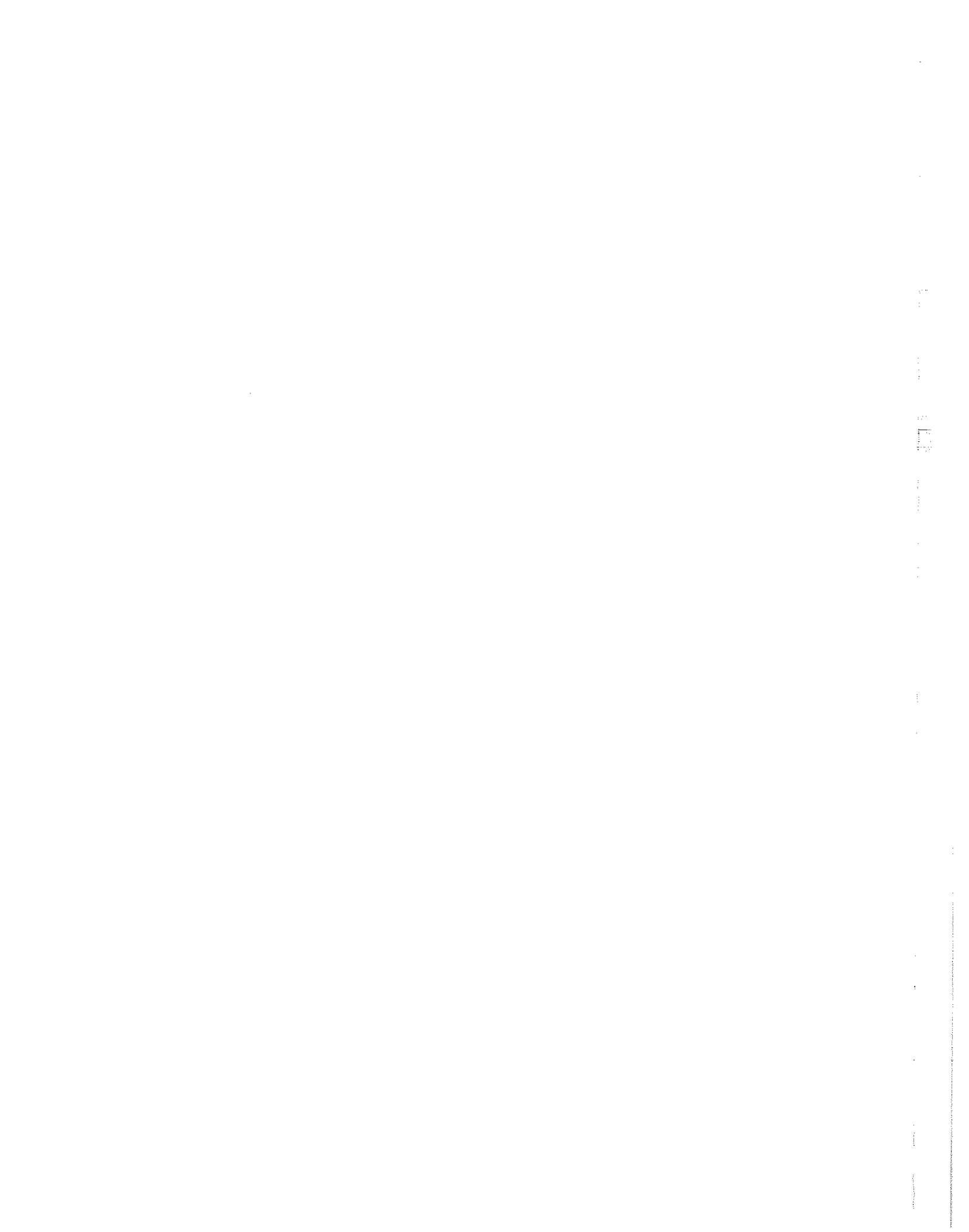
#### Retail Expenditure Potential

Current (1988) and forecasted (1990) retail expenditures by State Board of Equalization (SBE) categories for the four areas are detailed in Tables 3.2.4 and 3.2.5. Retail expenditures are relative to the number of households and retail establishments within the given market area.

Potential expenditures for food stores (1988) represent the largest proportion of total retail sales within each category, approximately 22.6, 21.7, 21.6 and 21.8 percent for the 1.5, 3.0, 5.0 and 10.0 mile areas, respectively (see Table 3.2.4). The discrepancies are due to the variance in household incomes between the four categories as explained in the previous section. On the other hand, potential expenditures for the "other retail" category are proportionately lower for the 1.5 mile radius (8.6%), compared to the 3.0 mile radius (10.5%), 5.0 mile radius (10.5%), and the 10.0 mile radius (10.2%). These trends are indications of the lower disposable incomes for the residents of the 1.5 mile radius.

#### Employment Base Retail Expenditure Potential

Given the large amount of industrially zoned land within the trade area, an analysis of the employment base retail expenditures potential was performed. CIC determined the total occupied square feet of industrial space within the market area (see Table 3.2.6). An estimate of employment was calculated using a ratio of three employee per 1,000 square feet of industrial space. A total of 4,311 employees were estimated to work within the market area. These 4,311 employees currently support a major portion of 83,910 square feet of retail space within the market area (see Table 3.2.7). Employment base-supported retail space was generally identified as eating and drinking establishments of convenience centers located adjacent to an industrial area. Employment projections in Table 3.2.7 are



### Table 3.2.4

RETAIL EXPENDITURE POTENTIAL  
1988  
(values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$38,916	\$192,317	\$289,283	\$670,186
Eating & drinking place	17,283	85,179	128,122	296,957
Drug & proprietary	6,421	30,078	45,214	105,721
Gasoline service station	15,500	78,485	118,091	272,475
General merchandise	26,970	128,644	193,423	450,831
Apparel & accessories	7,864	42,279	63,657	145,467
Furniture, furnishings & equip.	7,850	45,637	68,769	155,296
Automotive dealer	29,008	150,580	226,631	520,791
Hardware, lumber & garden	7,892	40,764	61,348	141,091
Other retail	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
Total retail	<u>\$172,531</u>	<u>\$887,239</u>	<u>\$1,335,200</u>	<u>\$3,072,930</u>

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Source: CIC Research, Inc., 1988  
National Decision Systems





**Table 3.2.5**

RETAIL EXPENDITURE POTENTIAL  
1990  
(values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$42,918	\$238,076	\$374,078	\$865,469
Eating & drinking place	19,060	105,446	165,677	383,486
Drug & proprietary	7,081	37,235	58,467	136,527
Gasoline service station	17,094	97,160	152,706	351,870
General merchandise	29,743	159,253	250,119	582,197
Apparel & accessories	8,673	52,339	82,316	187,854
Furniture, furnishings & equipment	8,657	56,496	88,927	200,547
Automotive dealer	31,991	186,409	293,061	672,542
Hardware, lumber & garden	8,704	50,463	79,330	182,203
Other retail	<u>16,352</u>	<u>115,470</u>	<u>181,893</u>	<u>405,644</u>
Total retail	<u>\$190,273</u>	<u>\$1,098,347</u>	<u>\$1,726,574</u>	<u>\$3,968,339</u>

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Source: CIC Research, Inc., 1988  
National Decision Systems



Table 3.2.6

MARKET AREA\*  
EMPLOYMENT BASE

<u>Project</u>	<u>Address</u>	<u>Total Occupied Square Feet</u>	<u>Est. # of Employees**</u>
Palomar Commerce Center	635-675 Naples	78,000	234
Chula Vista Oxford Park	635 Oxford	30,000	90
Southrail Business Park	Jayken Street	128,000	384
	698 Anita St.	18,000	54
South Bay Bus. Park	653 Anita St.	67,000	201
Rancho Anita Industrial	757 Anita St.	129,000	387
	779 Anita St.	12,000	36
	799 Anita St.	10,000	30
	817 Anita St.	10,000	30
Brittania Bus. Center	675 Anita St.	95,000	285
South City Bus. Center	2240 Main St.	160,000	480
Bay View Commerce Ctr.	1021 Bay Blvd.	265,000	795
Bayside Business Park	1120 Bay Blvd.	50,000	150
	1008 Ind. Blvd.	17,000	51
	916 Ind. Blvd.	19,000	57
Glade Industrial Park	2446 Main St.	62,000	186
Norsouth Industrial Park	2222 Verus St.	45,000	135
Sky Trio Industrial Park	7020 Alamitos Ave.	20,000	60
Redlich Industrial Park	2540 Main St.	60,000	180
	2203 Verus St.	-0-	-0-
	2400 Main St.	<u>162,000</u>	<u>486</u>
	Total	1,437,000	4,311

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\*Market area includes industrial projects located along the Interstate 5 corridor from "L" Street to Main Street, within Chula Vista.

\*\*Estimated number of employees was calculated using a ratio of three employees per 1,000 square feet.

Source: CIC Research, Inc., December 1988



Table 3.2.7

MARKET AREA INDUSTRIAL EMPLOYMENT  
BASE AND RETAIL SUPPORT PROJECTIONS\*

	<u>1988</u>	<u>1995</u>	<u>2000</u>	<u>2010</u>	<u>Annual Percent Change</u>
Employees	4,311	4,834	5,025	5,728	1.3%
Retail space**	83,910	94,095	97,822	111,486	1.3%
Supported by area industrial employees (sq.ft.)					

---

\*Projections (growth rates) were based on SANDAG employment projections for Chula Vista.

\*\*Based on a field survey conducted by CIC Research, Inc., 1988.

Source: SANDAG, July 1988  
CIC Research, Inc., 1988



based on SANDAG forecasts for Chula Vista. An estimated additional 1,250 square feet of retail space will be supported annually. Although these increases are not large, the rate of growth in employment at 1.5 percent annually is significantly greater than the meager 0.1 percent annual increases forecast for population growth.

### 3.2.2 IMPACTS

In this section, the market analysis and determination of potential impacts to businesses and facilities are described. Under the first three headings the subject retail project and existing businesses/facilities are described, followed by the determination of possible impacts.

#### Tenant Plan

The proponent, Pacific Scene Properties, provided tenant profile information to CIC Research from its leasing agent. The broker, Flock & Avoyer Commercial Real Estate, is seeking tenants to comprise a supermarket and/or supermarket and drug center. Alternatively, the center may be anchored by users such as Lionel Leisure (similar to Toys R Us), National Lumber, or other nonfood retailers. This choice between alternatives could greatly complicate the market analysis, not only because of the two options presented, but also because of the resulting tenants and the amount of space they would occupy may be completely different from what is contemplated at this time. In addition, the type and size of auxiliary shops remains undefined. Therefore, the analysis will consider the tenant types currently proposed, and employ a degree of sensitivity to the comparison with existing and proposed retail businesses to evaluate those that could be impacted the most by a given assortment of tenants at the study site.

The basic elements of the current plan include a 45,280 square foot market, a 15,00 square foot space for major commercial user, and 51,750 square feet for smaller shops with an 8,000 to 10,000 square foot drug store. There are also four pads for restaurants ranging in size from under 2,000 square feet to over 4,000 square feet. Apparently three restaurants will be fast foods, and the fourth a coffee shop (Carrows, Denny's) or other national or regional chain (refer back to Figure 3.2.1).

Potential auxiliary tenants for the supermarket/drug store concept could include dry cleaners, one-hour photo, delicatessen, yogurt shop, etc. The alternative off-price center could have major tenants such as T.J. Maxx, Marshall's or 3-D bed & Bath. Smaller tenants could include Clothestime Women's Wear, Public Image, Warehouse Records, Patrini's Shoes or Volume Shoes, etc. Possible additional tenants for either concept could be food uses

such as pizza, ice cream, donut, yogurt, or a delicatessen (if not applicable above). In other words, these options could represent a typical tenant mix at a large convenience center, a neighborhood or community retail center.

#### Existing Retail Base

Of the 1,614,453 square feet of commercial space surveyed in the Montgomery Specific Plan area, 1,489,941 is occupied by retail tenants/owners. The difference is accounted for by 55,761 square feet in office, service or medical use, and 68,751 square feet of vacant space (4.4% vacancy). The subject project would add 127,365 square feet or 8.2 percent to the current base of occupied and vacant retail space.

A field survey conducted by CIC Research identified 17 retail centers within or adjacent to the Montgomery Specific Plan area. An additional 555,669 square feet is distributed in the area as strip retail, primarily along Broadway and Third Avenue. Figure 3.2.2 locates these centers and strip retail areas. The map code in the first column of Table 3.2.8 on the following pages keys to the center locations in Figure 3.2.2 identifying the address/location, types of tenants, square footage, occupancy rates, and weekday and weekend observed parking lot occupancies to each specific location.

The principal retailing areas are found along Broadway and Third Avenue. The largest centers are located along these streets. Two centers can be designated as community shopping centers, i.e. the Price Club center (291,441 square feet) and the Ralphs/Target center (225,924 square feet). These centers (map codes 4&5) create a strong destination retail district that extends to the limits of the Price Club's trade area, as it overlaps with similar trade areas for its Santee warehouse to the northeast and Morena Boulevard facility to the north. The subject development would receive some benefit from being adjacent to this assemblage of destination retail uses, since many shoppers would pass by the site between Broadway and I-5. Other "spin-off" or convenience centers already exist, i.e. Palomar Village (home improvements, map code 1), Trolley Square (miscellaneous retail, map code 2), and Palomar Square (convenience, map code 3).

In Figure 3.2.4 and Table 3.2.9, four new centers are described which will further add to this concentration of retail space. Olsher commercial center (map code 20) and Genesis Plaza (map code 21) would be located on the east side of Broadway. An expansion of the Price Club center would add more square footage at that location (map code 18). Somerset Plaza is the largest planned center, comprising 110,208 square feet. In total, the destination and surrounding centers will comprise 720,424 square feet of retail space for the vicinity of Palomar Street and



## Table 3.2.8

### EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS

Map Code	Area	Project/Address	Type of Tenant	Sq. Ft.	Occupancy Rate	Weekday Observed Activity	Weekend Observed Activity
1	Palomar	Palomar Village/ 700 Palomar St.	hardware appliance vacant	8,772 12,300 <u>14,250</u> 35,322	60%	N/A	N/A
2	Palomar	Trolley Square/ 700 Palomar St.	clothes bakery restaurant stereo other hair	16,380 2,704 2,600 1,456 7,176 <u>780</u> 31,096	100	37%	29%
3	Broadway	Palomar Square/ 1300 Broadway	jewelry donut liquor fast food other service vacant	1,000 1,000 4,640 8,000 10,790 1,000 <u>8,320</u> 34,750	77	38	40
4	Broadway	Ralphs Center/ 1200 Broadway	clothes Target Ralphs fast food stereo auto	36,002 105,625 55,250 12,900 10,647 <u>5,500</u> 225,924	100	69	77
5	Broadway	Price Club/ 1200 Broadway	clothes Price Club spec. food fast food home furn. hardware other services	14,450 118,800 3,100 2,800 31,396 114,445 5,750 <u>700</u> 291,441	100	N/A	N/A
6	Broadway	Naples Center/ 1100 Broadway	other services vacant nonretail	2,624 3,840 10,048 <u>3,940</u> 20,452	51	N/A	N/A
7	Broadway	Broadway Point/ 1100 Broadway	clothes convenience fast food home furn. auto other vacant nonretail	3,360 952 5,600 3,360 784 6,608 4,928 <u>2,072</u> 27,664	82	N/A	N/A



Table 3.2.8  
(continued)

Map Code	Area	Project/Address	Type of Tenant	Sq. Ft.	Occupancy Rate	Weekday Observed Activity	Weekend Observed Activity				
8	Broadway	Arch Plaza/ 1000 Broadway	spec. food	760	51%	N/A	N/A				
			restaurant	1,600							
			hair	800							
			vacant	<u>3,000</u>							
				6,160							
9	Broadway	Cal-Store Plaza/ 900 Broadway	sports	17,325	83	N/A	N/A				
			vacant	<u>3,440</u>							
				20,765							
10	Broadway	Main Center/ 1700 Broadway	boots	3,440	96	57%	32%				
			convenience	1,680							
			rest./bar	18,200							
			toy	720							
			vacant	1,440							
			nonretail	<u>9,260</u>							
				34,740							
11	Third	Vons Center/ 1300 Third	clothes	8,509	100	75	74				
			discount	8,188							
			drug	17,850							
			Vons	33,441							
			restaurant	3,805							
			furniture	16,080							
			services	5,855							
			nonretail	<u>6,499</u>							
									100,227		
			12	Third				Big Bear Center/ 1300 Third	clothes	2,500	96
discount	5,000										
Big Bear	26,010										
liquor	2,500										
restaurant	11,160										
hardware	30,753										
other	3,500										
services	5,000										
vacant	<u>3,660</u>										
					90,083						
13	Third	Plaza Del Rey/ Third & Oxford	liquor	1,800	94	N/A	N/A				
			fast food	1,350							
			stereo	5,400							
			other	2,925							
			services	4,725							
			vacant	1,125							
			nonretail	<u>2,475</u>							
			19,800								
14	Third	Pacific Com. Bank/ Third & Oxford	drug	1,500	91	N/A	N/A				
			spec. food	3,300							
			restaurant	6,600							
			stereo	1,800							
			other	9,600							
			services	3,000							
			vacant	3,000							
			nonretail	<u>3,000</u>							
									31,800		

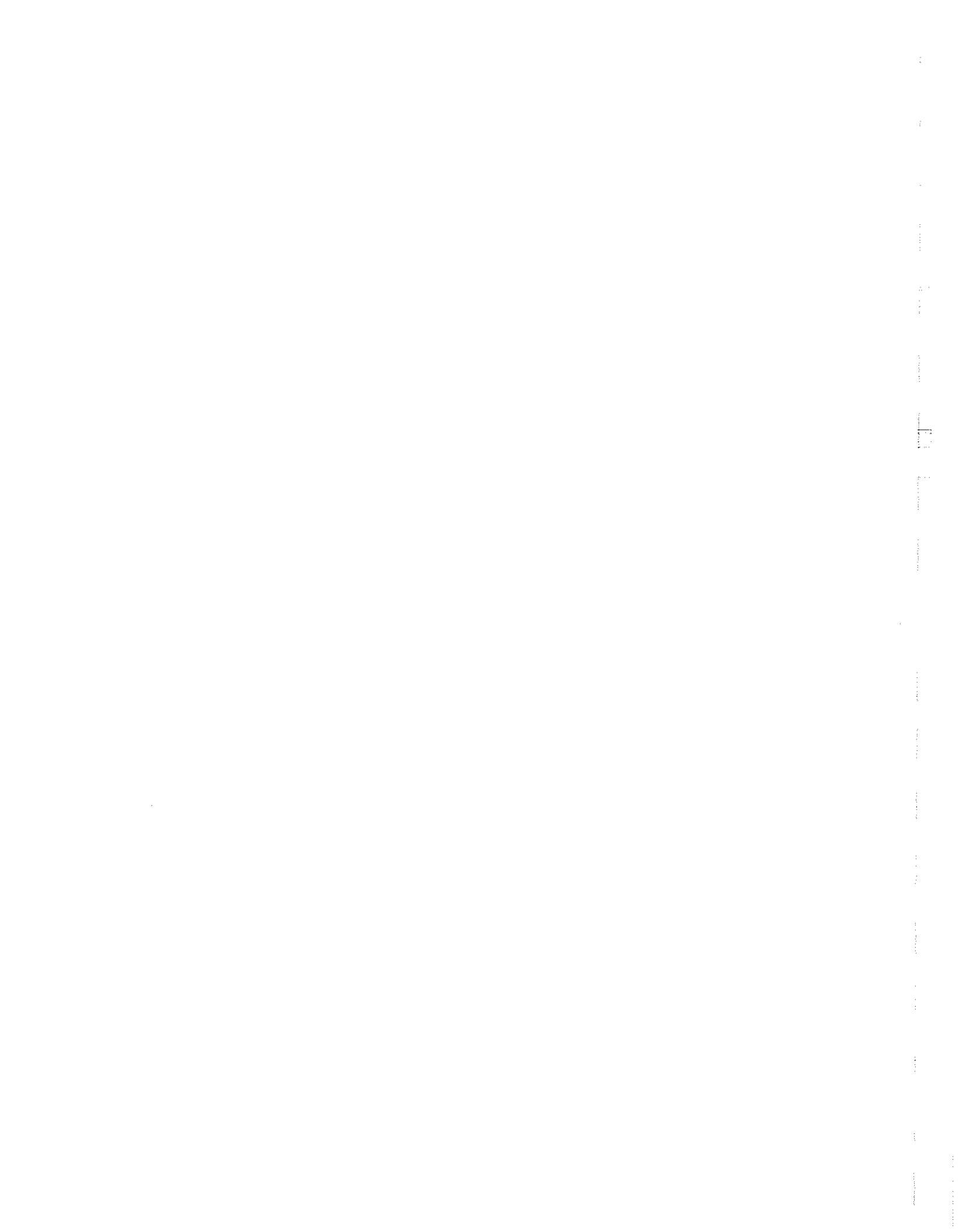


Table 3.2.8  
(continued)

<u>Map Code</u>	<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>	<u>Weekday Observed Activity</u>	<u>Weekend Observed Activity</u>
15	Third	Naples Plaza/ Third & Naples	spec. food liquor restaurant stereo other service nonretail	4,200 1,250 6,525 1,800 4,175 5,625 <u>3,625</u> 27,200	100%	N/A	N/A
16	Third	Longs/Vons Ctr./ 800 Third	drug Vons spec. food fast food other services	22,750 22,100 1,320 1,020 1,580 <u>2,340</u> 51,110	100	69	78
17	Third	Health Spa Center 1100 Third Avenue	clothing merchandise fast food services	1,200 1,600 4,250 <u>3,200</u> 10,250	100	N/A	N/A

Freestanding Businesses by Block (excluding major centers)

<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
A	Broadway	1300 Broadway	convenience restaurant dry cleaners	2,000 6,000 <u>2,000</u> 10,000	100%
B	Broadway	1200 Broadway	clothes furniture other retail services nonretail	1,600 10,230 4,640 800 <u>800</u> 18,070	100%
C	Broadway	1100 Broadway	rest./bar auto dealer toy auto repair vacant	11,500 N/A 14,400 6,000 <u>3,000</u> 34,900	91%
D	Broadway	1000 Broadway	convenience spec. food restaurant furniture services vacant nonretail	5,580 1,800 11,400 6,000 12,532 5,060 <u>6,300</u> 48,672	90%
E	Broadway	900 Broadway	services	7,200	100%
F	Broadway	1600 Broadway	auto sales	N/A	100%



### Table 3.2.8

(continued)

Freestanding Businesses by Block (excluding major centers)

<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
G	Broadway	1700 Broadway	discount	22,500	93%
			convenience	2,400	
			market	8,100	
			other retail	1,680	
			auto repair	11,680	
			vacant	<u>3,280</u>	
			49,640		
H	Third	1300 Third	convenience	2,400	100%
			market	10,000	
			rest./bar	11,300	
			furniture	2,250	
			other retail	4,500	
			services	13,000	
			nonretail	<u>5,700</u>	
			49,150		
I	Third	1200 Third	drug	1,050	100%
			spec. food	3,850	
			fast food	17,650	
			furniture		
			& appl.	8,750	
			auto repair	3,400	
			services	3,050	
			nonretail	<u>2,550</u>	
			40,300		
J	Third	1100 Third	rest./bar	9,500	95%
			appliances	2,300	
			auto repair	6,700	
			other retail	7,600	
			services	3,050	
			vacant	<u>1,500</u>	
K	Third	1000 Third	clothes	4,400	99%
			donut	1,500	
			K-Mart	100,362	
			liquor	2,000	
			fast food	18,850	
			appliances	1,600	
			furniture	25,800	
			hardware	3,600	
			auto parts	2,600	
			gasoline	2,000	
			other retail	7,900	
			services	11,425	
			vacant	600	
			nonretail	<u>6,600</u>	
			189,237		
L	Third	900 Third	jewelry	400	100%
			fast food	4,200	
			auto parts	5,500	
			gasoline	2,000	
			auto glass	1,000	
			services	<u>400</u>	
			13,500		





Table 3.2.8  
(continued)

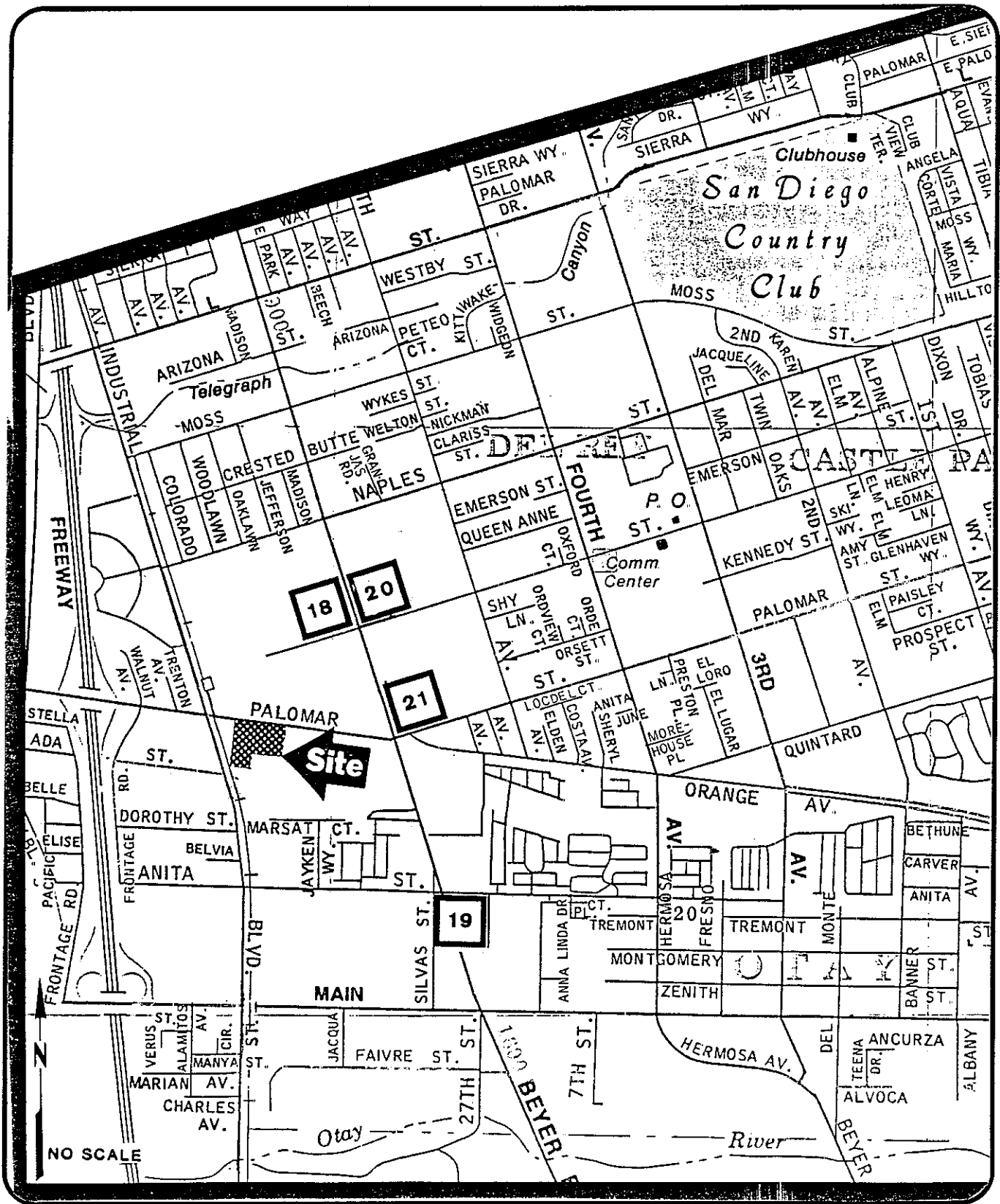
Freestanding Businesses by Block (excluding major centers)

<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
M	Third	1400 Third	donut pizza	1,500 1,500 <u>3,000</u>	
N	Third	1600 Third	convenience spec. food fast food auto repair	3,000 1,200 5,250 4,000 <u>13,450</u>	100%
O	Third	1700 Third	convenience liquor gasoline	3,000 2,250 2,000 <u>7,250</u>	100%
P	Ind.	1400 Industrial	convenience restaurant	2,000 2,000 <u>4,000</u>	100%
Q	Ind.	1000 Industrial	toy services nonretail	15,390 6,720 2,940 <u>25,050</u>	100%
R	Palomar	200 Palomar	restaurant other vacant	8,000 1,500 2,100 <u>11,600</u>	82%

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Source: CIC Research, Inc., 1988





SOURCE: CIC Research, Inc., 1988

Figure 3.2.4

## Planned Retail Developments

A. D. HINSHAW ASSOCIATES



Table 3.2.9

PLANNED RETAIL DEVELOPMENTS

<u>Map Code</u>	<u>Development</u>	<u>Location</u>	<u>Expected Tenant Types</u>	<u>Sq. Ft.</u>	<u>Project Status</u>
18	Price Club Center	Broadway & Oxford	Silo, Carls Jr., retail	13,000 2,600 <u>1,500</u> 17,100	N/A
19	Sommerset Plaza	Broadway & Anita	retail/food showroom	52,626 <u>57,582</u> 110,208	5-89 completion
20	Olsher Commercial	1181 Broadway	retail	9,955	6-89 completion
21	Genesis Plaza	Broadway & Palomar	retail	26,720	N/A

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Source: Chula Vista Planning Department  
Area commercial brokers  
CIC Research, Inc., 1988



Broadway. In addition, strip retail on the three blocks in this area amounts to 62,970 square feet (map codes A, B & C). Again, most outlets are convenience or spin-off uses drawing from the customer base generated by the destination retail, and from residents in the immediate market area.

The locations of centers and strip retail in relation to Palomar Trolley Center will partially determine competitiveness. However, the large amount of space also creates more drawing power for the area. This effect results from the type of retail businesses present (i.e. destination or convenience). In some cases, adding more of the same type of outlets can create an over-supply situation. Alternatively, developing more of a single use, such as fast food restaurants, can create a level of critical mass that will generate additional activity for similar uses.

Retail businesses in the centers and strip facilities surveyed are categorized by State Board of Equalization groupings in Table 3.2.10. Further classification into market base designations were made to distinguish those supported primarily by the residential community and others catering to daytime employment, particularly employees of nearby industrial parks. A total of 1,489,941 square feet representing 320 establishments were identified. The largest number of outlets were found in the eating and drinking places category (70) with over one-fourth catering the employment base. The greatest square footage is in the general merchandise group. In terms of the overall distribution of firms and square footage, there is a relatively high concentration of restaurants, while automotive retailers are quite few.

#### Sales Estimation

As was stated in the methodology and assumptions section, it is not the purpose of this report to determine the feasibility or tenant mix for the site. However, to estimate potential market area impacts, two concepts provided by the proponent's leasing agent were expanded to the point at which the project's influence could be tested.

In Table 3.2.11, the supermarket/drug store concept is presented. Table 3.2.12 presents a square footage and sales distribution for an off-price center. Sales per square foot for each scenario were developed from the Urban Land Institute's "Dollars and Cents of Shopping Centers" and represent medians; however, sales levels could exceed these amounts for outlets that are particularly appropriate for the location, and income levels of area households. The major difference between the two approaches is represented by the sales rate and square footage for a supermarket in Scenario 1, producing and indicated total gross income for the entire center of \$27,998,000.





Table 3.2.10

ESTIMATED SQUARE FOOTAGE OF  
RETAIL SPACE BY TYPE OF BUSINESS

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	65,766	33			65,766	33
General merchandise	389,550	9			389,550	9
Drug stores	43,150	4			43,150	4
Food stores	177,311	24	26,836	10	204,147	34
Packaged liquor	14,440	6			14,440	6
Eating and drinking places	139,830	51	53,730	19	193,560	70
Home furnishings and appliances	141,169	21			141,169	21
Building materials and farm implements	157,570	6			157,570	6
Auto supplies/dealers	14,384	8			14,384	8
Service stations	7,600	4			7,600	4
Other retail stores	<u>136,759</u>	<u>54</u>	<u>1,344</u>	<u>1</u>	<u>138,103</u>	<u>55</u>
Retail store total	1,287,529	220	81,910	30	1,369,439	250
All other outlets	<u>118,502</u>	<u>69</u>	<u>2,000</u>	<u>1</u>	<u>120,502</u>	<u>70</u>
Total space surveyed	<u>1,406,031</u>	<u>289</u>	<u>83,910</u>	<u>31</u>	<u>1,489,941</u>	<u>320</u>

Source: CIC Research, Inc., December 1988

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Table 3.2.11

SUBJECT PROJECT POTENTIAL SALES -  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	15,000	100.52	1,508
Drug stores	9,000	179.09	1,612
Food stores			
supermarket	45,280	371.37	16,816
specialty	<u>3,500</u>	128.82	<u>451</u>
	48,780		17,267
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>29,250</u>	155.33	<u>4,543</u>
	31,250		4,784
All other outlets			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	
 Total	 <u>127,365</u>		 <u>\$27,998</u>

Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"



Table 3.2.12

SUBJECT PROJECT POTENTIAL SALES -  
OFF-PRICE SHOPPING CENTER  
(1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	10,000	\$145.72	\$1,457
Gen. merchandise stores	45,280	100.52	4,552
Food stores	10,500	128.82	1,353
Packaged liquor	3,500	206.26	722
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Furniture, furnishings	15,000	127.59	1,914
Auto dealers & supplies	2,200	133.32	293
Other retail stores	23,550	155.33	3,658
All other outlets	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	--
<b>Total</b>	<u>127,365</u>		<u>\$15,902</u>

Source: CIC Research, Inc., 1988  
Urban Land Institute, "Dollars and Cents of Shopping  
Centers, 1987"



## Retail Market Impact

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 3.2.13 presents a comparison of the existing square footages and outlets in and adjacent to the Montgomery Specific Plan area with the supermarket/drug store concept. Overall, this scenario would represent eight percent of both the existing retail square footage and outlets. Assuming all of the known planned retail space was built by mid-1990 (163,983 square feet), the subject development would then account for seven percent of area retail space.

Categories in which the center would represent a higher proportion of retail space would be in drug stores, food stores, and other outlets. A drug store would generate increased competition among other drug stores in the area. However, the addition of fast food restaurants would generate more activity for similar outlets near Palomar and Broadway, at the expense of the market shares held by restaurants along Third Avenue.

In Table 3.2.14, the off-prices center concept is evaluated in the same manner. The difference in representation by grouping is a greater emphasis in apparel, general merchandise, liquor, furniture, and auto supplies categories. This emphasis, however, does not translate directly to potential impacts, since with the exception of general merchandise, the existing representation of these outlets is relatively low.

In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17 percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets.

The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

A third means of evaluating market impact is to estimate prorata sales capture rates for the project at the time it would open. Conclusions of this approach are presented in Table 3.2.15. At the bottom of the table, the total estimated sales from Scenario 1 (supermarket/drug store anchors) would represent

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**Table 3.2.13**

POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA  
SCENARIO 1

	Existing Occupied Retail Space		Scenario 1 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	6,000	1	8%	3%
General merchandise	389,550	9	15,000	1	4	10
Drug stores	43,150	4	9,000	1	17	20
Food stores	204,147	34	48,780	3	19	8
Packaged liquor Eating and drinking places	14,440	6	--	--	0	0
Furniture, furnishings and appliances	193,560	70	10,520	4	5	5
Building materials and farm implements	141,169	21	--	--	0	0
Auto supplies/dealers	157,570	6	--	--	0	0
Service stations	14,384	8	--	--	0	0
Other retail stores	7,600	4	--	--	0	0
	<u>138,103</u>	<u>55</u>	<u>31,250</u>	<u>16</u>	<u>18</u>	<u>22</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

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**Table 3.2.14**

POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA  
SCENARIO 2

	Existing Occupied Retail Space		Scenario 2 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	10,000	5	13%	13%
General merchandise	389,550	9	45,280	1	10	10
Drug stores	43,150	4	--	--	0	0
Food stores	204,147	34	10,500	4	5	11
Packaged liquor	14,440	6	3,500	1	20	14
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	15,000	1	10	5
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	2,200	1	13	11
Service stations	7,600	4	--	--	0	0
Other retail stores	<u>138,103</u>	<u>55</u>	<u>23,550</u>	<u>9</u>	<u>15</u>	<u>14</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988



# Table 3.2.15

## MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE (1988 dollars, values in thousands)

	Estimated 1990 Retail Sales				Palomar Trolley Center		Palomar Trolley Center Capture of Market Area Sales					
	Trade Area Around Site				Projected Sales		1.5 Miles		3.0 Miles		5.0 Miles	
	1.5 Miles	3.0 Miles	5.0 Miles	#1	#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	
Apparel	\$8,673	\$52,339	\$82,316	\$874	\$1,457	10%	17%	2%	3%	1%	2%	
General merchandise	29,743	159,253	250,119	1,508	4,552	5	15	1	3	1	2	
Drug stores	7,081	37,235	58,467	1,612	--	23	--	4	--	3	--	
Food stores	42,918	238,076	374,078	17,267	2,075	40	3	7	1	5	--	
Eating and drinking places	19,060	105,446	165,677	1,743	1,743	9	9	2	2	1	1	
Furniture, furnishings and appliances	8,657	56,496	88,927	--	1,914	--	22	--	3	--	2	
Building materials and farm implements	8,704	50,463	79,330	--	--	--	--	--	--	--	--	
Auto dealers and supplies	31,991	186,409	293,061	--	293	--	1	--	--	--	--	
Service stations	17,094	97,160	152,706	--	--	--	--	--	--	--	--	
Other retail stores	16,352	115,470	181,893	4,784	3,658	29	22	4	3	3	2	
Subtotal	\$190,273	\$1,098,347	\$1,726,574	\$27,788	\$14,970	15%	8%	3%	1%	2%	1%	
All other outlets	--	--	--	210	210	N/A	N/A	N/A	N/A	N/A	N/A	
Total	\$190,273	\$1,098,347	\$1,726,574	\$27,998	\$15,902	15%	8%	3%	1%	2%	1%	

Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
 National Decision Systems



15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area.

By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The three mile area would extend eastward to I-805. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.

Given the three-mile market size, the food store would capture the largest share of retail expenditures, at a seven percent rate. The drug store in Scenario 1 would represent the next largest addition to the market requiring four percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market.

The second scenario, requiring eight percent of expenditures from the 1.5 mile region and one percent of the cumulative expenditures up to three miles from the site would not be expected to significantly affect any particular category of retail business.

#### Growth and Retail Demand

Although the relative proportions of the market that the study site represents appear small, as either eight percent of total square footage or one to three percent of potential sales, whatever sales capture occurs, most will be obtained through competing with existing and planned outlets. Very little of the site's revenues can be expected from growth of population or households.

Growth in the number of households within 1.5 and 3.0 miles of the site is expected to occur at 0.2 and 1.7 percent annual rates. Based on the estimated 1,495,907 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 5,966 to 51,089 additional square feet would be required at these projected rates of growth.

Planned retail centers (not including the subject) would represent an additional 163,983 square feet of a 5.1 percent increase in space over the next two years. Adding the subject project, a total of 291,348 square feet would be added, or a 9.0 percent annual increase in two years, above the amount of existing occupied space.

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. It is assumed that land and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these newer centers to have high occupant rates and average to high lease rates for the area in order to break even. Furthermore, development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers.

Centers that could be affected by both planned development and the proposed project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 Block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located in a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.

Naples Center entails a total of 20,452 square feet and is located in the middle of the 1300 block of Broadway; two units containing 10,048 square feet are vacant (49% vacancy). Tenants include a U.S. Armed Services recruiting office, print shop, arcade, and a cabinet shop. At 1010 Broadway, a 12,272 square foot center has a variety of users including an office for motor vehicle registration, a liquor store, a laundry, a video rental outlet, and a financial services firm. Two units are vacant (3,460 square feet, or 28%). A fourth center just north of the Montgomery Specific Plan area in the 900 block of Broadway could also be affected. This center has a check cashing/lottery business and a nondescript financial services operation as main tenants. Another outlet, Los Gallos, will be renting the end unit along Moss Street. Built in 1987, this center has approximately 11,400 square feet, 3,400 of which (30%) is vacant.

Whereas retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine these uses for mutual support, the above-mentioned centers were unable to attract a functional combination of tenant types. Leasing activity up to this point has allowed nearly any business that will sign a lease. Such haphazard combinations can discourage subsequent tenants from locating in the center. Other better located and planned centers will continue to out-compete these centers for tenants.

The proposed project is a much better located center and has indicated specific leasing plans. Even if lease rates are higher at the Palomar Trolley Center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway.



The result of this competition for tenants in a market where retail space is being added faster than housing units may bring continued vacancies in the smaller centers. Lower lease rates or more concessions and possible failures could result, given the individual margins under which each must operate. However, it is unlikely that such failures would occur. The reason is that the low-end users noted above predominate in the Broadway area and centers catering to such tenants should expect both slow lease-up activity, above average tenant turnover, and allowances for uncollected rent.

With regards to development of the Palomar Trolley Center, growth of the retail district at Palomar and Broadway is dependent upon expansion of the market area that the district serves. This expansion could be growth in the number of households, greater depth in the existing area through capture of larger market shares, or more penetration into more distant neighborhoods and communities. The proposed center is well located to accomplish such expansion in any of these approaches by correctly choosing appropriate anchors and auxiliary shops. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

#### Palomar Trolley Center Impacts

The foregoing analysis indicates that it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments. Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies can not be ascribed to the eventual marketing of the Palomar Trolley Center, since it is not large enough to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to their construction. The mistakes or choices made by these other developers will not be directly affected by the Palomar Trolley Center project, or be impacted from cumulative effects of the project.

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers.

### Competitive Environment

Development of the proposed project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the subject development is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

### 3.2.3 MITIGATION

Because no significant adverse socioeconomic impacts have been identified, there are no mitigation measures to be associated with the Palomar Trolley Center project.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present...", but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged [A-7 p.8]. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infill sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.

### 3.2.4 ANALYSIS OF SIGNIFICANCE

#### Benefits From Project

Benefits to the community from development of the Palomar Trolley Center are increased retail sales tax receipts for the City and a convenient, useful shopping facility for consumers. These attributes are described below to allow comparison to other implications of the project.

Fiscal Impact: The fiscal impact of the development would result from the change in land use zoning from Limited Industrial (M-52) to Neighborhood Commercial (C-N). In general, industrial development is expected to generate revenues at 74 percent of annual municipal operating costs, on a per-acre basis. Retail development can generally be expected to return 130 percent of operating expenses on a per-acre basis. Given approximate operating expenditures for public safety, etc., of \$10,000 per acre per year for retail development and \$4,300 for industrial, the net benefit from retail development would be approximately \$4,200 per acre or \$51,366 annually from retail development of the site.

A second level of fiscal impact is determined by estimating the proportion of revenues that would be provided by sources outside the City, i.e. capture of retail sales tax revenues from nonresidents. This calculation is made in Table 3.2.16. Expenditures at the study site are estimated for the 2,715 households within 1.5 miles of the site, but lying outside the City boundaries. First a determination of the degree at which each retail category would be represented at the site (i.e. because a small proportion of apparel shopping is conducted at neighborhood centers compared to community, regional, and specialty centers, apparel sales were given 25 percent categorical representation at the site). A second order of reduction in sales capture was determined by proportionate square footage in competitive outlets in the area.

Retail sales tax represents approximately 77 percent of annual revenues accruing to the City from retail development. The \$22,707 in sales tax revenue generated from nonresidents within 1.5 miles of the site would account for eight percent of total sales tax receipts, based on the supermarket/drug store concept. This estimate of outside capture is considered to be conservative since only households within a short driving distance from the site were included.

Convenience: A successful development of the Palomar Trolley Center would provide the community with additional convenient, and shopping opportunities.



**Table 3.2.16**

**STUDY SITE POTENTIAL SALES TAX REVENUES  
(generated from outside of Chula Vista)  
(1.5 mile radius)**

<u>Retail Category</u>	<u>Site Tenant Mix Market Representation</u>	<u>1990 Households Projection</u>	<u>Potential Sales Per Household*</u>	<u>Site Capture Rate</u>	<u>Potential Site Capture</u>	<u>City Share of Sales Tax Receipts</u>
Food store	100%	2,715	\$961	25%	\$652,279	\$6,523
Eating & drinking places	100	2,715	1,334	18	651,926	6,519
Drug stores	100	2,715	496	50	673,320	6,733
General merchandise	25	2,715	2,082	3	42,395	424
Apparel	25	2,715	607	30	123,600	1,236
Furniture & furnishings	25	2,715	606	4	16,453	165
Hardware, lumber and garden	25	2,715	609	8	33,069	331
Other retail	25	2,715	<u>1,144</u>	10	<u>77,649</u>	<u>776</u>
			\$7,839		\$2,270,691	\$22,707

\*Taxable 1988 dollars.

Source: CIC Research, Inc., 1988  
National Decision Systems



### Considerations Regarding Competition

The proposed retail center would continue the trend of increasing competitiveness among smaller centers along Broadway. As noted previously the potential for business losses or failures is rooted in location and design problems associated with these centers/outlet. While the Palomar Trolley Center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences. It is in the best interest of consumers to allow this process to continue with as little direct interference as possible. Actions such as aligning planning policies to support existing and desirable retail facilities represent the best means to accommodate changes in retail trends as they occur.

### 3.3 MAINTENANCE OF ADOPTED GROWTH MANAGEMENT THRESHOLD STANDARDS

The City's Threshold Standards were adopted on November 17, 1987, as a mechanism to preserve and enhance the public services and quality environment now enjoyed by Chula Vista. Each of the issues addressed in the policy includes a goal describing the desired condition and objectives that define measurable steps toward achieving the goal. The threshold standards are levels of service or maintenance standards. Implementation measures are included which are to be used to insure maintenance of the standards [A-6]. The maintenance of the traffic threshold standards were previously addressed in the Traffic Analysis. This section describes the existing conditions of the City's Fire/Emergency Medical, Police, Parks and Recreation, Drainage, Sewer, and Water services and facilities with respect to their threshold standards, and the relationship between the development of the proposed project and the maintenance of these standards.

#### 3.3.1 PROJECT SETTING

##### Fire and Emergency Medical Service

Fire protection and first response emergency medical service for the project area is provided by Chula Vista Fire Department Station No. 5, located approximately one mile from the site on the southeast corner of Fourth Avenue and Oxford Street. Station No. 5, equipped with 1 Telesquirt pumper engine, is staffed 24 hours a day, seven days a week with 3-4 firefighters per shift.

The Threshold Standard requires response times within seven minutes for 85 percent of cases. Current level of service is 92 percent. Estimated response time to the project site is 3-7 minutes total [A-8][B-1].

##### Police Services

The Chula Vista Police Department operates out of it's headquarters located at 276 Fourth Avenue. The department presently has 215 employees of which 147 are sworn officers and 68 are civilian personnel. The sworn officers include 32 supervisors, 34 detectives, 73 field officers, and 8 traffic officers. There are three shifts per day with approximately 13-16 officers per shift able to respond to calls. When shifts change, they overlap for one to three hours, thus doubling the number of officers on duty for that time period. The department has a pool of 38 marked cars, 34 unmarked cars, and 5 motorcycles. Ninety-five percent of calls are responded to from the field.

The City's threshold standard for police service is an emergency response time within 5 minutes in 75 percent of cases, and within seven minutes in 90 percent of cases. The level of



service for-the-past-six-months from June 1988 through November 1988 has averaged 69.3 percent for response times within 5 minutes, and 87.3 percent for response times within 7 minutes. Hence, the current level of service is below threshold the standard. Estimated emergency response time to the project site is 4 minutes [B-2].

### Parks and Recreation

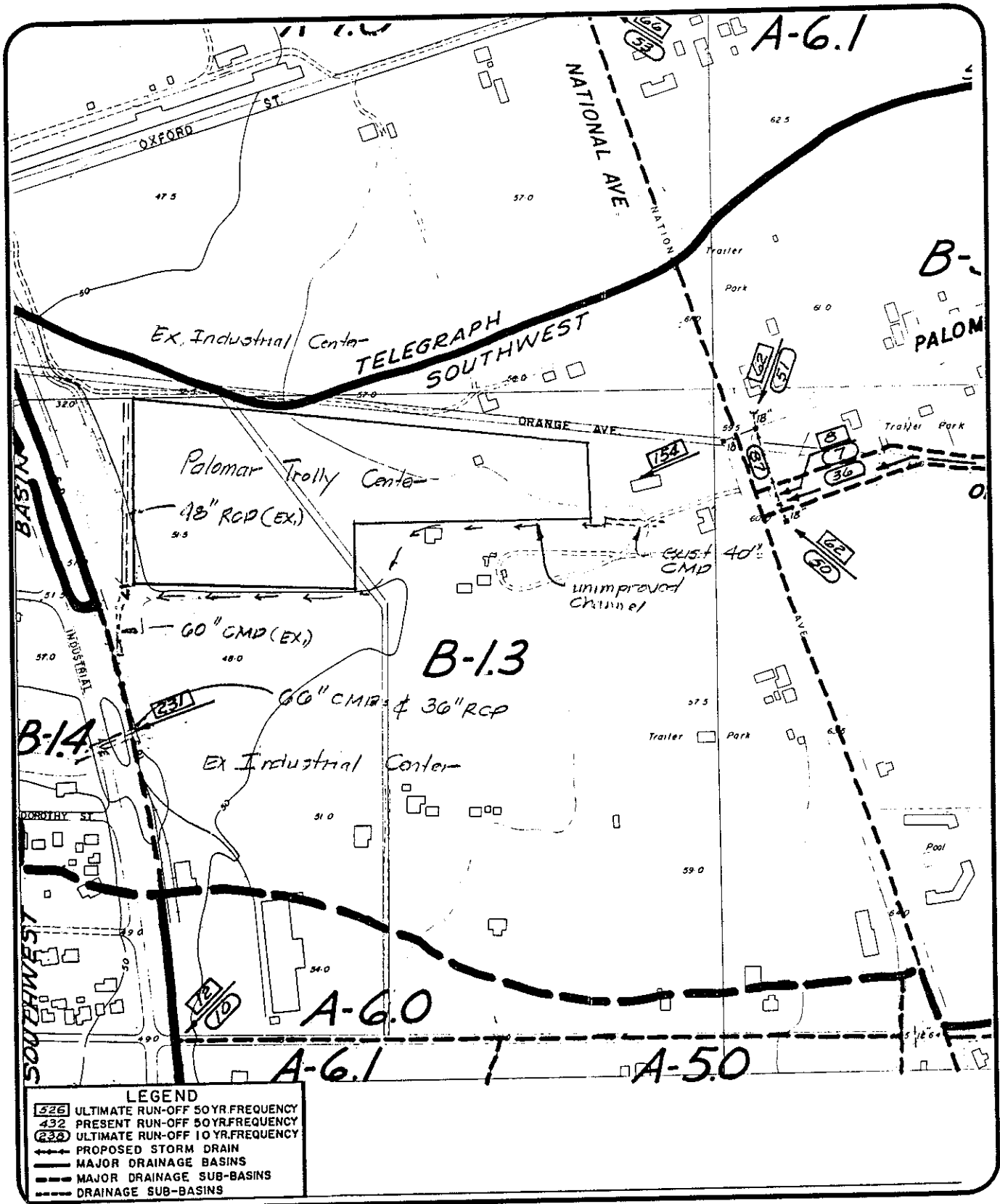
The threshold standard establishes a ratio of three acres of parkland per 1,000 residents east of I-805. This standard is not directly applicable to the area surrounding the proposed shopping center; however, the City's Parks and Recreation Element of the General Plan establishes a local park (neighborhood and community parks) standard ratio of 4 acres of local park land for every 1,000 persons served [A-9]. Based on this standard, and the Montgomery population of 25,000, the local park requirement for the Montgomery Specific Plan Area is 100 acres. According to the Montgomery Specific Plan, the only existing public park in Montgomery is the 3.9-acre Lauderbach Community Center, thus indicating that there is a profound shortage of local parks for the community [A-1]. The Montgomery Specific Plan addresses this condition in recommendations to correct the deficiency. Included is the proposal to reserve and improve the SDG&E right-of-way for public parks and/or open space, which could provide a recreational linkage between the parksite suggested for the Orange Avenue/Hermosa Avenue area and the MTDB Palomar Trolley Station.

### Drainage

The proposed site is located in sub-basin B-1.3 of the Southwest drainage basin. The property is relatively flat, sloping to the southwest at a grade of less than 2 percent. The site drainage currently flows southwesterly to an existing unimproved drainage swale along the southern border of the property. Existing on-site drainage facilities consist of a 48-inch RCP storm drain along the western boundary of the site which flows south. The drainage swale and 48-inch RCP join at the southwest corner of the site and drain into an existing off-site 60-inch CMP storm drain (see Figure 3.3.1, also see Section 2.2, Figure 2.2.1 Site Plan).

The 60-inch CMP flows into a large sump approximately 500 feet to the south of the project site. This sump is the drainage concentration point for sub-basin "B" of the Southwest Drainage Basin (see Figure 3.3.1). The ultimate runoff per 50 year frequency ( $Q_{50}$ ) at this point is 231 cubic feet per second (cfs). The sump is drained by two pipes, a 66-inch CMP at 0.55 percent grade and a 36-inch RCP at 1.71 percent grade. Preliminary calculations indicate that these pipes are inadequate for  $Q_{50}$  flows at this point; although low flows ( $Q_{10}$ ) can pass,  $Q_{50}$  flows will pond for a given period before passing [A-10].





SOURCE: Lawrence, Fogg, Florer, & Smith

Figure 3.3.1

Drainage Map

A. D. HINSHAW ASSOCIATES



The City's threshold standard for drainage states that, "Storm water flows and volumes shall not exceed City Engineering Standards" [A-6]. City Engineering Standards requires special design for sump conditions to protect property.

The goal of the drainage threshold standards is to provide a safe and efficient storm water drainage system to protect residents and property in the City of Chula Vista. The objective of the drainage threshold standards is that individual projects will provide necessary improvements consistent with the City Drainage Master Plan(s) and City Engineering Standards.

The Montgomery Specific Plan does not indicate any specific drainage problems within the vicinity of the site but does address Montgomery-at-large in stating that "some areas of Montgomery are periodically flooded" [A-1, pt.1, pg.19].

### Sewer

Montgomery is within the City of Chula Vista Sanitation Service area. Sewage from this area is discharged into the METRO System for treatment at the Point Loma Regional Plant. The system collection facilities for Montgomery are considered adequate; no new major improvements should be required within the next 10-15 years [A-1, pt.1, pg.21].

There are no existing sewer facilities on-site. The project proposes to connect to an existing 8-inch sewer line approximately 300 feet south of the project property. This line flows westerly under the MTDB trolley track and connects with the 15 inch sewer line flowing south along Industrial Boulevard.

### Water

The City's threshold standard for water requires that a service availability letter be obtained from the Water District for each project. The Montgomery community is served by the South Bay Irrigation District. The water system is owned by the district and leased to the Sweetwater authority for operations and maintenance. According to the water service availability letter issued by the Sweetwater Authority for the Palomar Trolley Center, the proposed project is within the Sweetwater Authority service area and is eligible for service [A-11]. The Montgomery Specific Plan indicates that the district has sufficient capacity to meet twice the estimated water demand of all of Chula Vista within the Sweetwater Authority service area and Montgomery. The Specific Plan also indicates that "although the present pipeline system which serves the Montgomery Community is adequate, the Sweetwater Authority proposes substantial improvements with the replacement of some 12-inch pipes at various locations within the next two years." [A-1 pt.1, p.21]. The existing on-site water facilities consist of a 10-inch main

extending through the property within the 60-foot wide public right-of-way bisecting the property. The existing off-site facilities adjacent to the property consist of a 10-inch main in Palomar Street.

### 3.3.2 IMPACTS

#### Fire and Emergency Medical Service

The Chula Vista Fire Department will be able to provide an adequate level of fire protection/EMS for the proposed project without an increase in equipment or personnel [A-8][B-1]. The estimated response time is within the required threshold standard of 7 minutes. The development of the proposed project is not anticipated to affect the City's threshold standard for fire and emergency medical services.

#### Police Services

As previously noted, the Police Department's average level of service ~~for--the--past--six--months--has--been~~ from June 1988 through November 1988 was below the threshold standard. The estimated emergency response time of 4 minutes to the project site is within the City's threshold standard. However, additional calls which may occur as a result of the development of the project, and other recently approved projects, will incrementally add to the overall caseload. Any increase in caseload would have a cumulative effect on the police response time and, hence, may significantly impact the City's threshold standard for police service [B-2].

#### Parks and Recreation

As previously noted, the City's threshold standard applies to the area east of I-805 and is, therefore, not directly applicable to the proposed project area; however, the standard established by the General Plan is applicable. The development of the proposed project will not directly affect the City's standard for parks and recreation facilities because the project would lead to only a minor increase in the City's housing stock (i.e., population).

The Montgomery Specific Plan indicates that there is a serious deficiency of local park land in the Montgomery community. Furthermore, Montgomery is already substantially developed and has little vacant land remaining and, therefore, little opportunity for the development of parks. Because the proposed property is vacant and could conceivably be developed as a park, the development of the project, and the commitment of the property to the proposed land use, will further diminish the opportunity for the development of local parks in Montgomery.

## Drainage

The drainage section of the Initial Study (IS 88-63M), completed by the City Engineering Department, indicates that the off-site facilities adjacent to the project site are adequate to serve the proposed project [A-8]; however, further investigation has raised questions about the adequacy of facilities downstream. As noted in the previous section, the facilities at the large sump to the south of the project site may be inadequate for Q<sub>50</sub> flows.

Preliminary hydrology calculations indicate that the development of the proposed project will result in an increase of surface runoff of 13 cfs for Q<sub>10</sub> flows and 17 cfs for Q<sub>50</sub> flows at the sump [A-10]. Depending on the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows, the development of the proposed project may have an effect upon the City's threshold standards for drainage.

## Sewer

According to the Initial Study, as completed by the City Engineering Department, it is anticipated that the project will generate sewage flows of approximately 21,540 gallons per day (gpd). The proposed project will be served via off-site improvements within the 66-foot wide road easement which will terminate in a connection with the existing 8-inch sewer line, 300 feet south of the project, as it crosses the road easement. According to the City Engineering Department, the connection with the existing sewer facilities will adequately serve the proposed project within standards. The development of the proposed project is not expected to affect the City's threshold standards for sewage.

## Water

The water demand standards established by the Water District for commercial shopping centers are 2.5 acre feet per acre, per year [B-3]. The requirement for the 12.23-acre project is 30.57 acre feet of water per year. According to the Initial Study, as completed by the City Fire Department, the project will require a fire flow of 5,000 gallons per minute (gpm) [A-8]. According to the water service availability letter, the extent of water facility construction and relocation will be determined after the Authority reviews the proposed plans and a hydraulic analysis has been completed [A-11]. The development of the proposed project is not expected to affect the City's threshold standards for water.

### 3.3.3 MITIGATION

#### Fire and Emergency Medical Service

Because the development of the proposed project is not anticipated to affect the City's threshold standard for fire and emergency medical services, no mitigation measures are recommended.

#### Police Services

The development of the proposed project is anticipated to have an cumulative adverse effect on the City's threshold standard for police services; therefore, it is recommended that the Growth Management Oversight Committee (GMOC) review the current level of service of the Police Department and, if warranted, that the City follow the implementation measure as set forth in the threshold standards policy [A-6]. The implementation measure directs the City Council to hold a public hearing for the purpose of adopting a moratorium on the acceptance of new tentative maps applications during which time the City shall prepare specific mitigation measures for adoption which are intended to bring the condition into conformance.

#### Parks and Recreation

No significant impacts to City standards for parks and recreation facilities are anticipated to result from the development of the proposed project. No mitigation is recommended.

#### Drainage

It should be noted that all the assumptions used in the preliminary hydrology calculations are based upon the most current existing records on file with the City, which includes a drainage study prepared more than 20 years ago. These records were found to be incomplete and, at best, outdated. Also, further investigation into the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows is required. Therefore, it is recommended that a more thorough hydrology study be conducted in order to better determine the downstream effects of the proposed project and, accordingly, it's effect upon the City's threshold standards for drainage. This study should include an analysis of all the elements of the existing drainage system (48-inch RCP, 60-inch CMP, unimproved channel, sump, and storm drains located beneath the trolley tracks). The study shall determine the adequacy of these structures to handle the drainage flow with and without project conditions and shall identify the necessary mitigation measures to be implemented to meet the City standards. The significance of impacts can be determined at that time.



### Sewer

Because the development of the proposed project is not expected to affect the City's threshold standards for sewage, no mitigation measures are recommended.

### Water

No significant impacts to the City's water services threshold standards are anticipated to result from the development of the proposed project. No mitigation is recommended.

### 3.3.4 ANALYSIS OF SIGNIFICANCE

#### Fire and Emergency Medical Service

There will be no significant impacts to the maintenance of Fire and Emergency Medical Service Threshold Standards as a result of implementing the proposed development.

#### Police Services

There will be significant cumulative impacts to the maintenance of Police Service Threshold Standards as a result of implementing of the proposed development and other projects which have been recently approved. These cumulative impacts can be mitigated by the measures described in the previous section. The degree to which they are mitigated will be determined by the measures implemented by the City.

#### Parks and Recreation

No significant impacts to City standards for parks and recreation facilities are anticipated to result from the development of the proposed project.

#### Drainage

Potential impacts to the maintenance of Drainage Threshold Standards as a result of the proposed development cannot be fully determined until further study is completed. Mitigation and the significance of impacts can be determined at that time.

With regard to the current condition of existing drainage records on file with the City, it is suggested that the City conduct a complete hydrology/drainage survey of the area in order to revise the Drainage Master Plan(s).

Sewer

There will be no significant impacts to the maintenance of the City's Sewer Threshold Standards as a result of the proposed development.

Water

No significant impacts to the City's water services threshold standards are anticipated to result from the implementation of the proposed development.

## 4.0 ALTERNATIVES

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. By analyzing and weighing alternatives, decision-makers can make judgments concerning the advantages and disadvantages of each alternative in relation to the proposed project.

### 4.1 NO PROJECT

This alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition if this alternative were to be adopted. No significant environmental impacts are expected to occur as a result of this alternative.

### 4.2 EXISTING ZONING

This alternative would develop the site in accord with the existing land use and zoning designations. The existing Specific Plan land use designation for the site is Research and Limited Industrial [A-1]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2]. The development is assumed to be a light industrial project with a total gross floor area of 137,500 sq.ft.

#### Transportation/Access

If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT with 132 trips occurring during the P.M. peak hour, therefore generating 5,148 less ADT and 494 less trips during the P.M. peak hour than the proposed project. Under this alternative, the traffic impacts associated with the development of the site would be significantly less.

#### Community Social Factors

The current zoning, Limited Impact Industrial Use (M52), is intended for manufacturing and industrial uses which evidence no or very low nuisance characteristics. The M52 zone permits a range of commercial uses; some of which are also permitted under the proposed C-N zoning. These uses are, however, dissimilar in that they are intended to support, or be secondary to the industrial uses. The project site would not be in direct competition with nearby commercial centers if developed under this alternative. Therefore, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

## Maintenance of Adopted Growth Management Threshold Standards

The site is located in a substantially developed area where public services and facilities are already provided; thus, no extensions of public facilities to the project site are required, and no additions to public services personnel and equipment are expected to be necessary. Additionally, due to the physical characteristics of urban development, a project developed according to the permitted land uses under the current zoning would likely have effects upon the maintenance of adopted growth management threshold standards similar to those of the proposed project. For example, whether the site is developed as an industrial park or a shopping center, it will be a point of destination and will have buildings, pavement, landscaping, etc. It will, therefore, generate traffic, require fire protection and emergency medical service, police protection, water and sewer services, will increase and alter surface drainage, and decrease land opportunities for parks and recreation facilities. Hence, the effects of developing the proposed site under this alternative would be comparable with those of the proposed project.

### **4.3 REDUCED PROJECT**

This alternative assumes a "reduced scale of development" of the proposed project; thus, it assumes the approval of the proposed SPA and zone change, but the gross floor area of the development will be reduced. This alternative assumes the exclusion of the four "restaurant" pads, and the "bank" pad. These deletions reduce the gross floor area by approximately 15,335 sq.ft. for a total project size of approximately 112,030 sq.ft. gross floor area.

### Transportation/Access

Under this alternative the estimated daily traffic generation would add 5,489 ADT with 550 trips occurring during the P.M. peak hour, therefore generating 759 fewer ADT (12%) and 67 fewer trips (12%) during the P.M. peak hour than the proposed project. Additionally, issues such as stacking and site specific internal circulation impacts would be substantially reduced with the elimination of the restaurant pads. Compared to the proposed project, the traffic impacts associated with this alternative development of the site would be 12 percent less.

### Community Social Factors

Development of the site under this alternative would decrease the potential for socio-economic impacts which could result in the physical deterioration of nearby commercial centers because less business (less competition) would be located

at the center. The potential for impacts from increased competition, especially fast food restaurants, would be substantially reduced; thus, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

#### Maintenance of Adopted Growth Management Threshold Standards

Just as in the previous alternative, the analysis of the impacts to the maintenance of adopted growth management threshold standards must take into consideration that the site is located in a substantially developed area where public services and facilities are already provided. Therefore, no extensions of public facilities to the project site would be required, and no additions to public services personnel and equipment would be necessary. Additionally, due to the physical characteristics of urban development, a project developed according to this alternative would likely have effects upon the maintenance of adopted growth management threshold standards similar to those of the proposed project. For example, whether the site is developed as an industrial park or a shopping center, it will be a point of destination and will have buildings, pavement, landscaping, etc. It will, therefore, generate traffic, require fire protection and emergency medical service, police protection, water and sewer services, will increase and alter surface drainage, and decrease land opportunities for parks and recreation facilities. Hence, the effects of developing the proposed site under this alternative would be comparable with those of the proposed project.

#### 4.4 JAYKEN WAY ACCESS

This alternative assumes that access is provided to the project site from the south via Jayken Way. Currently Jayken Way ends on the south side of the San Diego Gas and Electric easement located adjacent to the southern boundary of the project site. Thus, the extension of Jayken Way would cross the SDG&E easement to gain access to the project site. A redesign of the building locations and internal circulation (see Site Plan, Figure 2.2.1) would be required to provide for this connection to the south.

#### Transportation/Access

As explained on page 17 of this EIR, if the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street

would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance. These differences are presented in Figures 3.1.4 and 3.1.5.

The only intersection Level of Service that would be affected is the Broadway/Palomar Street intersection. As stated on page 26, the LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. If access is also provided to Anita Street via Jayken Way, the Broadway/Palomar Street intersection would operate at LOS B.

#### Community Social Factors

This alternative would have no effect on Community Social Factors.

#### Maintenance of Adopted Growth Management Threshold Standards

This alternative would have no effect on the adopted Threshold Standards.

## 5.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

The increase in traffic associated with the proposed project and other approved projects in the area will significantly impact the level of service (LOS) on Palomar Street between I-5 and Broadway. This segment would operate at LOS E under the four-lane major road classification of the current City Circulation Element. If the new Circulation Element (currently under review) classification of a Class I Collector is applied the segment would operate at LOS F. This impact can be mitigated by improving Palomar Street to the ultimate six-lane Major Street classification of the new Circulation Element.

Broadway, north of Palomar Street, is projected to operate at LOS E under existing plus project plus approved project conditions. As noted in the traffic study, it is not feasible to improve Broadway to a six-lane Major Street. The recommended improvements to the intersection of Palomar Street/Broadway may alleviate some of the congestion on this roadway. If the City of Chula Vista determines that LOS E is unsatisfactory on Broadway, with no improvements scheduled for this street, alternative solutions to improve capacity should be investigated.

The intersection of Palomar Street/Broadway is projected to fall to LOS D under the existing plus project scenario. This LOS can be improved to C if eastbound Palomar is improved to accommodate a dual left turn lane. The Palomar Street/Industrial Boulevard intersection currently operates at LOS F during the P.M. peak hour. If the recommended mitigation measures are implemented, the LOS will improve to C.

The Police Department's average level of service has been below the City's adopted threshold standard during the past six months. Additional calls that may occur as a result of the development of the Palomar Trolley Center, and other recently approved projects, will incrementally add to the overall caseload. Any increase in caseload would have a cumulative effect on the police response time and may significantly impact the City's threshold standard.

## 6.0 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Changing the General Plan designation of the site from Research and Limited Industrial to Mercantile and Office Commercial, and rezoning from Limited Impact Industrial to Neighborhood Commercial, will have a long-term effect on the potential uses of the site. The type of land uses permitted would change from industrial activities to commercial activities. This change would not be an adverse impact, however, since there is a supply of industrially zoned land in the area that could be developed or redeveloped.

Development of the proposed project does raise questions concerning the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the Palomar Trolley Center is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

Development as either a commercial or industrial use would preclude any future use of the site for its former agricultural activities. However, the Huerhuero loam soil (HrC) on the site is rated as a Class III soil having severe limitations that reduces the choice of plants that can be successfully grown there. The main limitations are erosion and slow to very slow permeability of the subsoil. The HrC soil is rated as good for tomatoes and fair for truck crops and flowers. The Storie Index of 41 indicates that the few crops that can be grown on the site require special management.

In the short-term, construction of the Palomar Trolley Center will disrupt the noise and visual environment in the vicinity of the construction activity. Street improvements related to the project will also cause traffic disruptions on the surrounding street network. These disruptions will be temporary in nature, and will have no lasting effects on the environment.

Increased drainage resulting from the paving of the site may impact the sump area located southwest of the project site until



needed improvements are made. A thorough hydrology study will be required to determine the improvements needed to accommodate existing, plus increased, storm water flows.

Developing the property as proposed will generate an additional 5,148 trips per day compared to the traffic that would be generated by an industrial development. These additional trips would be a permanent addition to the traffic flow on local streets. Further, these trips would have a cumulative effect on Average Daily Traffic and Levels of Service as shown in Table 3.1.3.

The project proponent believes that the proposed development is appropriate at this time because there is an existing unmet demand for retail commercial services in the area. In its urban context the site is now underutilized. Given the adjacent trolley stop, which is already in operation, the site is well located to serve the commercial needs of trolley passengers. This proximity is a unique situation for transit riders who can combine the work-to-home trip with a shopping trip.

**7.0 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT**

Development of the site as a commercial facility will irreversibly commit the site to this specific type of use and preclude future agricultural uses of the property. While agricultural land is a non-renewable resource, the continued agricultural use of this site is highly unlikely given its location within an urbanized area.

Other irreversible environmental changes that will result from the development of the site involve the increased energy and water demands that will be involved in the construction and operation of the proposed facilities. The increased traffic associated with the project will be irreversible, as will the additional air pollutants and noise generated by the increased traffic. These increases are not considered significant, however.

## 8.0 GROWTH INDUCING IMPACT OF THE PROPOSED ACTION

Development of the Palomar Trolley Center will have a minor growth inducing impact on the City of Chula Vista and the South Bay area. This impact will result from the creation of new jobs that may result in attracting employees from out of the area to relocate in Chula Vista or other South Bay areas. The number of jobs that will be created will not lead to a significant growth inducing impact.

The project is considered to be an "in-fill" development since it is located within an urbanized area. No extension of public services will be required that would lead to the growth of population or housing.

## 9.0 REFERENCES

### 9.A Reference Documents

1. City of Chula Vista, Montgomery Specific Plan, 9/13/88
2. County of San Diego, Zoning Ordinance, 10/18/78, as amended
3. City of Chula Vista, Zoning Ordinance,
4. Willdan Associates, Traffic Analysis For Palomar Trolley Center, 10/14/88
5. JHK & Associates, Review of Traffic Analysis, 1/5/89
6. City of Chula Vista, Growth Management Threshold Standards, 11/17/87
7. City of Chula Vista, General Plan Digest
8. City of Chula Vista, Initial Study For Palomar Trolley Center (IS-88-63M),
9. City of Chula Vista, General Plan, Parks and Recreation Element, 2/74
10. Johnson, Vaughn, Preliminary Drainage Study For Palomar Trolley Station,
11. Sweetwater Authority, Water Service Availability Letter, 1/10/89
12. CIC Research, Inc., Economic Analysis For Palomar Trolley Center, 1/89

### 9.B Persons and Organizations Contacted

1. Mr. Jim Dyer, Captain, City of Chula Vista Fire Department, (619)691-5055
2. Mr. Keith Hawkins, Captain, City of Chula Vista Police Department, (619)691-5184
3. Mr. Jim Smyth, Senior Civil Engineer, Sweetwater Authority, (619)420-1413
4. Mr. Roger Daoust, Senior Civil Engineer, City of Chula Vista Engineering Department, (619)691-5021
5. Mr. Meharan Sepehri, Associate Traffic Engineer, City of Chula Vista, (619)691-5026

## 10.0 CONSULTANT IDENTIFICATION

This Environmental Impact Report (EIR) was prepared by A.D. Hinshaw Associates of San Diego, California, in conformance with the California Environmental Quality Act (CEQA), as amended (California Public Resources Code Section 21000 et seq.); the CEQA Guidelines, as amended (California Administrative Code Section 15000 et seq.); and the City of Chula Vista EIR Guidelines.

To the best of our knowledge and belief, the information contained in this EIR is accurate and current, and represents our professional opinion regarding the potentially significant environmental effects of the proposed project. Members of A.D. Hinshaw Associates staff and other consultants who contributed to this document are listed below:

Philip L. Hinshaw, Project Manager; M.A. Geography

Mark V. Tegio, Environmental Analyst/Planner; B.A. Public Administration

Sherry A. Price, Graphics/Planner; B.A. Environmental Design

Dan Marum, JHK and Associates,

Scott Pidd, CIC Research, Inc.,

Vaughn Johnson, Development Consultant,

I hereby affirm that to the best of our knowledge and belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated in this EIR.

 FOR:

Philip L. Hinshaw  
President, A.D. Hinshaw Associates



APPENDICES FOR  
DRAFT FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER

CHULA VISTA

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

March 22, 1989

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**APPENDIX A**  
**Initial Study**  
**Notice of Preparation and Responses**



INITIAL STUDY

City of Chula Vista  
Application Form

Case No. 15-88-6317  
 Fee-Deposit \$400.00  
 Receipt No. 60657  
 Date Rec'd 3-3-88  
 Accepted by \_\_\_\_\_  
 Project No. FA 330  
DP 477

A. BACKGROUND

1. PROJECT TITLE Palomar Trolley Center
2. PROJECT LOCATION (Street address or description) Lot 1 and Portion of Lot 2 of Walmers Subdivision per Map 729, and Portions of Lot 2 and 3 of Walmers Subdivision, according to plan No. 709 in County of S.D. State of CA. Assessors Book, Page & Parcel No. 622-030-16, 622-030-25, 27
3. BRIEF PROJECT DESCRIPTION 127,500 S.F. Commercial Shopping Center
4. Name of Applicant Pacific Scene  
 Address 2505 Congress Street Phone 299-5100  
 City San Diego State CA Zip 92110
5. Name of Preparer/Agent Project Design Consultants  
 Address 1010 Second Avenue, Suite 500 Phone 235-6471  
 City San Diego State CA Zip 92101  
 Relation to Applicant Civil Engineer Consultant
6. Indicate all permits or approvals and enclosures or documents required by the Environmental Review Coordinator.

a. Permits or approvals required:

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Specific Plan Revision | <input checked="" type="checkbox"/> Design Review Committee  | <input type="checkbox"/> Public Project       |
| <input checked="" type="checkbox"/> Rezoning/Prezoning     | <input type="checkbox"/> Tentative Subd. Map                 | <input type="checkbox"/> Annexation           |
| <input type="checkbox"/> Precise Plan                      | <input checked="" type="checkbox"/> Grading Permit           | <input type="checkbox"/> Design Review Board  |
| <input type="checkbox"/> Specific Plan                     | <input checked="" type="checkbox"/> Tentative Parcel Map     | <input type="checkbox"/> Redevelopment Agency |
| <input type="checkbox"/> Cond. Use Permit                  | <input checked="" type="checkbox"/> Site Plan & Arch. Review |   |
| <input type="checkbox"/> Variance                          | <input type="checkbox"/> Other                               |   |

b. Enclosures or documents (as required by the Environmental Review Coordinator).

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Location Map                   | <input type="checkbox"/> Arch. Elevations         | <input type="checkbox"/> Eng. Geology Report   |
| <input checked="" type="checkbox"/> Grading Plan                   | <input type="checkbox"/> Landscape Plans          | <input type="checkbox"/> Hydrological Study    |
| <input checked="" type="checkbox"/> Site Plan                      | <input type="checkbox"/> Photos of Site & Setting | <input type="checkbox"/> Biological Study      |
| <input type="checkbox"/> Parcel Map                                | <input type="checkbox"/> Tentative Subd. Map      | <input type="checkbox"/> Archaeological Survey |
| <input type="checkbox"/> Precise Plan                              | <input type="checkbox"/> Improvement Plans        | <input type="checkbox"/> Noise Assessment      |
| <input type="checkbox"/> Specific Plan                             | <input type="checkbox"/> Soils Report             | <input type="checkbox"/> Traffic Impact Report |
| <input type="checkbox"/> Other Agency Permit or Approvals Required |   | <input type="checkbox"/> Other                 |

B. PROPOSED PROJECT

1. Land Area: sq. footage 532,720 ± or acreage 12.2 ±.  
If land area to be dedicated, state acreage and purpose.

NONE

2. Complete this section if project is residential.

a. Type development: Single family \_\_\_\_\_ Two family \_\_\_\_\_  
Multi family \_\_\_\_\_ Townhouse \_\_\_\_\_ Condominium \_\_\_\_\_

b. Number of structures and heights \_\_\_\_\_

c. Number of Units: 1 bedroom \_\_\_\_\_ 2 bedrooms \_\_\_\_\_  
3 bedrooms \_\_\_\_\_ 4 bedrooms \_\_\_\_\_ Total units \_\_\_\_\_

d. Gross density (DU/total acres) \_\_\_\_\_

e. Net density (DU/total acres minus any dedication) \_\_\_\_\_

f. Estimated project population \_\_\_\_\_

g. Estimated sale or rental price range \_\_\_\_\_

h. Square footage of floor area(s) \_\_\_\_\_

i. Percent of lot coverage by buildings or structures \_\_\_\_\_

j. Number of on-site parking spaces to be provided \_\_\_\_\_

k. Percent of site in road and paved surface \_\_\_\_\_

3. Complete this section if project is commercial or industrial.

a. Type(s) of land use commercial

b. Floor area 127,500 s.f. Height of structure(s) 36 ft. maximum

c. Type of construction used in the structure wood frame, concrete blocks and types III and V

d. Describe major access points to the structures and the orientation to adjoining properties and streets 4 Driveways on South side of Palomar Street - Structures face North towards Palomar S

e. Number of on-site parking spaces provided 638

f. Estimated number of employees per shift 123, Number of shifts 1.5 Total 185

g. Estimated number of customers (per day) and basis of estimate 4,280 - Estimate by major tenant and related to SANDAG ADT projection.

N/A

- h. Estimated range of service area and basis of estimate 3-5 mile radius - normal supermarket criteria
- i. Type/extent of operations not in enclosed buildings drive-thru uses at pads - otherwise, none.
- j. Hours of operation 8:00 a.m. to 12:00 Midnight
- k. Type of exterior lighting Sodium

4. If project is other than residential, commercial or industrial complete this section.

- N/A
- a. Type of project \_\_\_\_\_
  - b. Type of facilities provided \_\_\_\_\_
  - c. Square feet of enclosed structures \_\_\_\_\_
  - d. Height of structure(s) - maximum \_\_\_\_\_
  - e. Ultimate occupancy load of project \_\_\_\_\_
  - f. Number of on-site parking spaces to be provided \_\_\_\_\_
  - g. Square feet of road and paved surfaces \_\_\_\_\_

C. PROJECT CHARACTERISTICS

- 1. If the project could result in the direct emission of any air pollutants, (hydrocarbons, sulfur, dust, etc.) identify them.  
Normal traffic generated by service and retail uses  
\_\_\_\_\_
- 2. Is any type of grading or excavation of the property anticipated yes  
(If yes, complete the following:)
  - a. Excluding trenches to be backfilled, how many cubic yards of earth will be excavated? 20,000 cy
  - b. How many cubic yards of fill will be placed? 20,000 cy
  - c. How much area (sq. ft. or acres) will be graded? 12.2 Ac.
  - d. What will be the - Maximum depth of cut 4'  
Average depth of cut 2'  
Maximum depth of fill 3'  
Average depth of fill 1.5'

3. Describe all energy consuming devices which are part of the proposed project and the type of energy used (air conditioning, electrical appliance, heating equipment, etc.) Heating, air conditioning, lighting and power normal to commercial uses refrigeration in supermarket.
  4. Indicate the amount of natural open space that is part of the project (sq. ft. or acres) none
  5. If the project will result in any employment opportunities describe the nature and type of these jobs. Full range of employment afforded by commercial and services enterprises.
  6. Will highly flammable or potentially explosive materials or substances be used or stored within the project site? NO
  7. How many estimated automobile trips, per day, will be generated by the project? 8,925 SANDAG (70/100 s.f.)
  8. Describe (if any) off-site improvements necessary to implement the project, and their points of access or connection to the project site. Improvements include but not limited to the following: new streets; street widening; extension of gas, electric, and sewer lines; cut and fill slopes; and pedestrian and bicycle facilities.  
Widening of Palomar Street to 102'R/W, 82'pavement width, raised median, 300' of offsite sewer extension adjacent to Southerly boundary and continuing in the existing 66' wide road easement
- D. DESCRIPTION OF ENVIRONMENTAL SETTING

1. Geology

Has a geology study been conducted on the property? NO  
(If yes, please attach)

Has a Soils Report on the project site been made? NO  
(If yes, please attach)

2. Hydrology

Are any of the following features present on or adjacent to the site? YES (If yes, please explain in detail.)

a. Is there any surface evidence of a shallow ground water table? NO

b. Are there any watercourses or drainage improvements on or adjacent to the site? exist 48" RCP storm drain along the Westerly boundary

c. Does runoff from the project site drain directly into or toward a domestic water supply, lake, reservoir or bay?

NO

d. Could drainage from the site cause erosion or siltation to adjacent areas?

NO

e. Describe all drainage facilities to be provided and their location. on site storm drain through center of project to connect to exist 48" adjacent to the Westerly boundary

3. Noise

a. Will there be any noise generated from the proposed project site or from points of access which may impact the surrounding or adjacent land uses? NO - major street noise will mask any project generated noise.

4. Biology

a. Is the project site in a natural or partially natural state?

NO

b. Indicate type, size and quantity of trees on the site and which (if any) will be removed by the project. \_\_\_\_\_

5. Past Use of the Land

a. Are there any known historical resources located on or near the project site? NO

b. Have there been any hazardous materials disposed of or stored on or near the project site? None known - site previously used for agriculture.

6. Current Land Use

a. Describe all structures and land uses currently existing on the project site. Vacant Land

- b. Describe all structures and land uses currently existing on adjacent property.

North Existing commercial and mercantile

South Church site, residences on Easterly half, on Westerly half  
SDG & E open space

East Commercial/Residential

West MTDB Trolley Station

7. Social

- a. Are there any residents on site? (If so, how many?) None
- b. Are there any current employment opportunities on site? (If so, how many and what type?) None present - past agriculture

Please provide any other information which could expedite the evaluation of the proposed project.



E. CERTIFICATION

I, A. James Moxham - Vice President  
PACIFIC SCENE, Inc or  
~~owner~~/owner in escrow\*

I, Daniel W. Sullivan - SENIOR PROJECT ENGINEER  
PROJECT DESIGN CONSULTANTS  
Consultant or Agent\*

HEREBY AFFIRM, that to the best of my belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the project and its setting have been included in Parts B, C and D of this application for an Initial Study of possible environmental impact and any enclosures for attachments thereto.

DATE: 3-7-88

\*If acting for a corporation, include capacity and company name.

G. ENGINEERING DEPARTMENT

1. Drainage

- a. Is the project site within a flood plain? NO
- b. Will the project be subject to any existing flooding hazards? NO
- c. Will the project create any flooding hazards? NO
- d. What is the location and description of existing on-site drainage facilities? 48" SD pipe along westerly boundary
- e. Are they adequate to serve the project? YES
- f. What is the location and description of existing off-site drainage facilities? 60" SD pipe flowing west away from SWC of property
- g. Are they adequate to serve the project? YES

2. Transportation

- a. What roads provide primary access to the project? PALOMAR ST.
- b. What is the estimated number of one-way auto trips to be generated by the project (per day)? 8925
- c. What is the ADT and estimated level of service before and after project completion?

	Before	After
A.D.T.	<u>28,180</u>	<u>37,105</u>
L.O.S.	<u>C</u>	<u>E</u>

- d. Are the primary access roads adequate to serve the project? NO  
If not, explain briefly. As a result of the subject development, the level of service on Palomar would be E which is not acceptable
- e. Will it be necessary that additional dedication, widening and/or improvement be made to existing streets? YES  
If so, specify the general nature of the necessary actions. Necessary R/W and widening is required to meet a "major" standard  
Required improvements include AC pavement, curb, gutter & S/W st. lights - - etc.

Case No. \_\_\_\_\_

3. Geology

a. Is the project site subject to:

Known or suspected fault hazards? \_\_\_\_\_

Liquefaction? \_\_\_\_\_

Landslide or slippage? \_\_\_\_\_

*These topics must be addressed  
by a soils report*

b. Is an engineering geology report necessary to evaluate the project? NO

4. Soils

a. Are there any anticipated adverse soil conditions on the project site? UNKNOWN

b. If yes, what are these adverse soil conditions? N.A.

c. Is a soils report necessary? YES

5. Land Form

a. What is the average natural slope of the site? \_\_\_\_\_

b. What is the maximum natural slope of the site? \_\_\_\_\_

*FLAT*

6. Noise

Are there any traffic-related noise levels impacting the site that are significant enough to justify that a noise analysis be required of the applicant? NO

Case No. \_\_\_\_\_

7. Air Quality

If there is any direct or indirect automobile usage associated with this project, complete the following:

	<u>Total Vehicle Trips (per day)</u>		<u>Emission Factor</u>		<u>Grams of Pollution</u>
CO	8925	X	118.3	=	1,055,828
Hydrocarbons	8925	X	18.3	=	163,328
NO <sub>x</sub> (NO <sub>2</sub> )	8925	X	20.0	=	178,500
Particulates	8925	X	1.5	=	13,388
Sulfur	8925	X	.78	=	6,962

8. Waste Generation

How much solid and liquid (sewage) waste will be generated by the proposed project per day?

Solid 4250 lb/Day      Liquid 21,540 G/Day

What is the location and size of existing sewer lines on or adjacent to the site? 15" sewer line flowing southerly in Industrial Blvd.

Are they adequate to serve the proposed project? YES

9. Public Facilities/Resources Impact

If the project could exceed the threshold of having any possible significant impact on the environment, please identify the public facilities/resources and/or hazards and describe the adverse impact. (Include any potential to attain and/or exceed the capacity of any public street, sewer, culvert, etc. serving the project area.) \_\_\_\_\_

Palomar Street Traffic - see item #2

Remarks/necessary mitigation measures Widening and Improvement of Palomar Street. Note that the relocation of traffic signs at the existing ~~to the~~ entrance road to the trolley station is an issue which must still resolved, as is the location of a public street ~~to~~ which presently crosses the site and the connection of Jayken Way to Palomar Street. These items are all discussed in the analysis and we do not concur with the consultants conclusions or assumptions in these regards.

Ross H. [Signature]  
City Engineer or Representative

7/1/88  
Date

Case No. \_\_\_\_\_

H. FIRE DEPARTMENT

1. What is the distance to the nearest fire station and what is the Fire Department's estimated reaction time? 1 1/2 miles  
3 mins.
2. Will the Fire Department be able to provide an adequate level of fire protection for the proposed facility without an increase in equipment or personnel? Yes
3. Remarks See Plan Correction Sheet

(Signature)  
Fire Marshal

3/10/88  
Date

# Initial Study

CHULA VISTA FIRE DEPARTMENT  
BUREAU OF FIRE PREVENTION

## PLAN CORRECTION SHEET

S/S of Palomar, between  
Industrial

Address 4 Broadway Plan File No. \_\_\_\_\_ Checker Loce Date 3/10/88

Type Constr. \_\_\_\_\_ Occupancy \_\_\_\_\_ No. Stories \_\_\_\_\_ Bldg. Area 127,500 #

The following list does not necessarily include all errors and omissions.

PROVIDE AND SHOW ON PLAN:

- ① Required fire flow is 5,000 gpm
- ② Provide a fully automatic fire sprinkler system to buildings. Systems to be monitored.
- ③ Fire hydrants are required, spacing of 300 feet. Combustible construction materials shall not be placed on-site until fire hydrants are installed, tested and fully operational.
- ④ Access roads shall be 20 ft wide minimum - all weather driving surface.
- ⑤ Access roads shall be within 150 ft. of any portion of buildings.
- ⑥ Fire extinguishers are required.

RECEIVED



MAR 17 1988

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

March 14, 1988

FILE NO. LNG 200

City of Chula Vista  
Environmental Review Coordinator  
P.O. Box 1087  
Chula Vista, California 92012

Re: IS-88-63M

Gentlemen:

Thank you for notifying San Diego Gas & Electric Company (SDG&E) about the initial study located on the south side of Palomar Street, between Industrial and Broadway. SDG&E appreciates having the opportunity to comment

Of special concern to SDG&E is the 250 foot wide fee owned electric right-of-way. The right-of-way is currently occupied with 230/138 kV and 69 kV overhead electric transmission lines. Some of the major issues that should be considered are:

- o Continued unobstructed vehicle access to and along the transmission facilities for patrol, repair and maintenance 24 hours a day is imperative. The ultimate development plan must not hamper this need.
- o Any proposed grading and improvement plan or any other encroachment into the transmission corridor must be reviewed and approved by SDG&E's Transmission Design Section prior to issuing our standard "Permission to Grade Letter "
- o Impacts to the right-of-way by proposed adjacent uses and impacts to proposed adjacent uses by the existing overhead electric facilities should also be examined.
- o Any aspects of the project design and development function that could affect the existing transmission facilities should be considered and land management should be given the opportunity to comment further.

By copy of this letter to Pacific Scene, Inc , I am attaching SDG&E's standard "Guidelines for Contractors/ Developers/Design Engineers" for encroachment to transmission electric easements

If you have any questions regarding SDG&E land rights and leasing requirements, please feel free to call me at 696-2490.

Sincerely,

*Thomas H. Duncan*

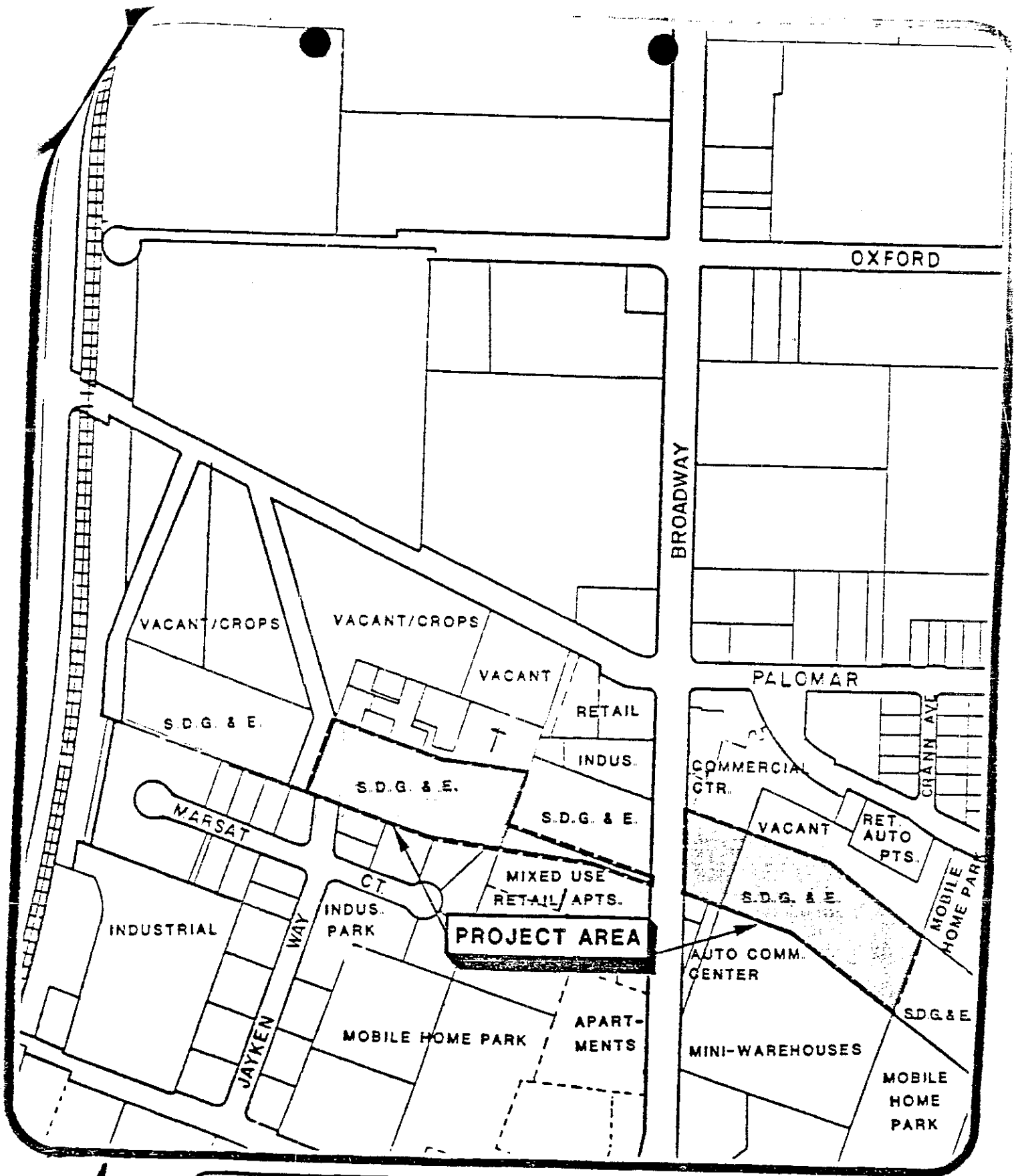
Thomas H. Duncan  
Property Management Representative

THD/las

cc: T. W. Nebel  
D. L. Rose

Pacific Scene, Inc.  
3900 Harney Street  
San Diego, CA 92110  
Attn: Mr Moxham





PROPOSED R.V. STORAGE LOTS

1450 Jayken Way  
1483 Broadway

**LOCATOR**  
SAN DIEGO  
GAS AND ELECTRIC  
RIGHT OF WAY

# Sweetwater Union High School District

ADMINISTRATION CENTER  
1130 FIFTH AVENUE  
CHULA VISTA, CALIFORNIA 92011  
(619) 691-5553

PLANNING DEPARTMENT

December 15, 1988

DEC 19 1988

Ms. Julie Schilling, Assistant Planner  
City of Chula Vista Planning Department  
Post Office Box 1087  
Chula Vista, CA 92012

Dear Mrs. Schilling:

RE: EIR - 89-4M, PALOMAR TROLLEY CENTER

The Sweetwater Union High School District Planning Department is responsible for monitoring all new development within the district so that an assessment of the impact on school facilities may be made. Therefore, it is important that a copy of the draft EIR be submitted for our review and comment. The standard information required by CEQA and the City of Chula Vista will be sufficient.

If you have any questions or comments, please do not hesitate to contact me at 691-5553.

Respectfully,



Thomas Silva  
Director of Planning  
IS/sly



# CHULA VISTA CITY SCHOOL DISTRICT

84 EAST "J" STREET • CHULA VISTA, CALIFORNIA 92010 • 619 425-9600

EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

## BOARD OF EDUCATION

JOSEPH D. CUMMINGS, Ph.D.  
SHARON GILES  
PATRICK A. JUDD  
JUDY SCHULENBERG  
FRANK A. TARANTINO

## SUPERINTENDENT

ROBERT J. MCCARTHY Ed.D.

December 12, 1988

Mr. Doug Reid  
Environmental Review Coordinator  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

DEC 15 1988

Re: Case No. EIR-89-4M/Palomar Trolley Center  
Project Applicant: Pacific Scene, Inc.

Dear Doug:


Schools in the Chula Vista City School District are at capacity and the District has added 19 relocatable classrooms over the past two years. Students are also being bussed outside their attendance area boundaries to help alleviate this situation.

Please be advised that this project is in the Harborside School attendance area. This facility is currently overcrowded and the District has added six relocatable classrooms to accommodate growth.

This project will impact Harborside School. The current developer fee of 67¢ per square foot of habitable living space may be inadequate to provide facilities for this development. The District would certainly be willing to discuss the possibility of a Mello-Roos Community Facilities District as an alternate form of financing.

If you have any questions, please do not hesitate to contact this office.

Sincerely,

  
Kate Shurson  
Director of Planning

KS:dp

CITY OF CHULA VISTA  
DISCLOSURE STATEMENT

APPLICANT'S STATEMENT OF DISCLOSURE OF CERTAIN OWNERSHIP INTERESTS ON ALL APPLICATIONS WHICH WILL REQUIRE DISCRETIONARY ACTION ON THE PART OF THE CITY COUNCIL, PLANNING COMMISSION AND ALL OTHER OFFICIAL BODIES.

The following information must be disclosed:

1. List the names of all persons having a financial interest in the application.

Khoury Enterprises, a California Limited Partnership

Pacific Scene, Inc.

List the names of all persons having any ownership interest in the property involved.

Kaoru Iwashita

Roy Shigeru Iwashita

Lily Iwashita

Mariko I. Sato

Minoru C. Iwashita

Toshiko Asakawa

2. If any person identified pursuant to (1) above is a corporation or partnership, list the names of all individuals owning more than 10% of the shares in the corporation or owning any partnership interest in the partnership.

All ownership in Item 1 is by

trusts for the benefit of Tawfiq

N. Khoury and his immediate family.

3. If any person identified pursuant to (1) above is a non-profit organization or a trust, list the names of any person serving as director of the non-profit organization or as trustee or beneficiary or trustor of the trust.

4. Have you had more than \$250 worth of business transacted with any member of City staff, Boards, Commissions, Committees and Council within the past twelve months?  
Yes  No  If yes, please indicate person(s) \_\_\_\_\_

Person is defined as: "Any individual, firm, copartnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver, syndicate, this and any other county, city and county, city, municipality, district or other political subdivision, or any other group or combination acting as a unit."

(NOTE: Attach additional pages as necessary.) PACIFIC SCENE, INC.

A. James Moxham 2/23/88  
Signature of applicant/date

A. James Moxham  
Print or type name of applicant

EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

CASE NO. 15 88 63M

Analysis (Provide in Section J an explanation of mitigation proposed for all significant or potentially significant impacts.)

YES POTENTIAL NO

1. Geology

- a. Is the project site subject to any substantial hazards, such as earthquakes, landsliding, or liquefaction?  YES  POTENTIAL  NO
- b. Could the project result in:
  - Significant unstable earth conditions or changes in geological substructure?  YES  POTENTIAL  NO
  - A significant modification of any unique geological features?  YES  POTENTIAL  NO
  - Exposure of people or property to significant geologic hazards?  YES  POTENTIAL  NO

2. Soils

- a. Does the project site contain any soils which are expansive, alluvial or highly erodible?  YES  POTENTIAL  NO
- b. Could the project result in:
  - A significant increase in wind or water erosion of soils, either on or off-site?  YES  POTENTIAL  NO
  - A significant amount of siltation?  YES  POTENTIAL  NO

3. Ground Water

- a. Is the project site over or near any accessible ground water resources?  YES  POTENTIAL  NO

b. Could the project result in:

- A significant change in quantity or quality of ground water?  YES  POTENTIAL  NO
- A significant alteration of direction or rate of flow of ground water?  YES  POTENTIAL  NO
- Any other significant affect on ground water?  YES  POTENTIAL  NO

4. Drainage

- a. Is the project site subject to inundation?  YES  POTENTIAL  NO
- b. Could the project result in:
  - A significant change in absorption rates, drainage patterns or the rate of amount of surface runoff?  YES  POTENTIAL  NO
  - Any increase in runoff beyond the capacity of any natural water-way or man-made facility either on-site or downstream?  YES  POTENTIAL  NO
  - Alterations to the course or flow of flood waters?  YES  POTENTIAL  NO
  - Change in amount of surface water in any water body?  YES  POTENTIAL  NO
  - Exposure of people or property to water related hazards such as, flooding or tidal waves?  YES  POTENTIAL  NO

5. Resources

- Could the project result in:
  - Limiting access to any significant mineral resources which can be economically extracted?  YES  POTENTIAL  NO
  - The significant reduction of currently or potentially productive agricultural lands?  YES  POTENTIAL  NO

6. Land Form

- Could the project result in a substantial change in topography or ground surface relief features?  YES  POTENTIAL  NO

YES POTENTIAL NO

7. Air Quality

a. Is the project subject to an air quality impact from a nearby stationary or mobile source?

— —

b. Could the project result in:

A significant emission of odors, fumes, or smoke?

— —

Emissions which could degrade the ambient air quality?

— —

Exacerbation or a violation of any National or State ambient air quality standard?

— —

Interference with the maintenance of standard air quality?

— —

The substantial alteration of air movement, moisture or temperature, or any significant change in climate either locally or regionally?

— —

A violation of the revised regional air quality strategies (RAQS)?

— —

8. Water Quality

Could the project result in a detrimental effect on bay water quality, lake water quality or public water supplies?

— —

9. Noise

a. Is the project site subject to any unacceptable noise impacts from nearby mobile or stationary sources?

— —

b. Could the project directly or indirectly result in a significant increase in ambient noise levels?

— —

10. Biology

a. Could the project directly or indirectly affect a rare, endangered or endemic species of animal, plant or other wildlife; the habitat of such species; or cause interference with the movement of any resident or migratory wildlife?

— —

b. Will the project introduce domestic or other animals into an area which could affect a rare, endangered or endemic species?

— —

11. Cultural Resources

a. Will the proposal result in the alteration of or the destruction of a prehistoric, historic, archaeological or paleontological resource?

— —

b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historical building, structure, or object?

— —

c. Does the proposal have the potential to cause a physical change which would affect unique ethnic or cultural values?

— —

d. Will the proposal restrict existing religious or sacred uses within the potential impact area?

— —

12. Land Use

a. Is the project clearly inconsistent with the following elements of the General Plan?

- Land Use
- Circulation
- Scenic Highways
- Conservation
- Housing
- Noise
- Park and Recreation
- Open Space
- Safety
- Seismic Safety
- Public Facilities

YES POTENTIAL NO

YES POTENTIAL NO

b. Is the project inconsistent with the Comprehensive Regional Plan?

YES POTENTIAL NO

16. Energy

YES POTENTIAL NO

Could the project result in: Wasteful, inefficient or unnecessary consumption of energy?

YES POTENTIAL NO

A significant increase in demand on existing sources of energy?

YES POTENTIAL NO

A failure to conserve energy, water or other resources?

17. Utilities

Could the project result in a need for new systems or alternatives to the following utilities:

Power or natural gas

Communications systems

Water

Sewer or septic tanks

Solid waste & disposal

Human Health

18.

Could the project result in the creation of any health hazard or potential health hazard?

19. Transportation/Access

Could the project result in: A significant change in existing traffic patterns?

An increase in traffic that could substantially lower the service level of any street or highway below an acceptable level?

20. Natural Resources

Could the project result in a substantial depletion of non-renewable natural resources?

YES POTENTIAL NO

13. Aesthetics

a. Could the project result in: Degradation of community aesthetics by imposing structures, colors, forms or lights widely at variance with prevailing community standards

Obstruction of any scenic view or vista open to the public?

Will the proposal result in a new light source or glare?

14. Social

a. Could the project result in: The displacement of residents or people employed at the site?

A significant change in density or growth rate in the area?

The substantial demand for additional housing or affect existing housing?

15. Community Infrastructure

a. Could the project inhibit the ability of the urban support system to provide adequate support for the community or this project?

b. Could the project result in a deterioration of any of the following services?

Fire Protection

Police Protection

Schools

Parks or Recreational Facilities

Maintenance of Public Facilities Including Roads

YES POTENTIAL NO

J. PROJECT REVISIONS OR MITIGATION MEASURES

The following project revisions or mitigation measures have been incorporated into the project and will be implemented during the design, construction or operation of the project:

21. Risk of Upset

Will proposals involve:

- a. A risk of an explosion or the release of any hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset condition?

— — — — —  
 — — — — —  
 — — — — —

- b. Possible interference with an emergency plan or an emergency evacuation plan?

— — — — —  
 — — — — —

22. Growth Inducement

Could the service requirements of the project result in secondary projects that would have a growth inducing influence and could have a cumulative effect of a significant level?

— — — — —  
 — — — — —

23. Mandatory Findings of Significance

- a. Does the project have a potential to degrade the quality of the environment, or curtail the diversity of the environment?

— — — — —  
 — — — — —

- b. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals? (A short term impact on the environment is one which occurs in the relatively brief, definitive period of time, while long-term impacts will endure well into the future.)

— — — — —  
 — — — — —

- c. Does the project have impacts which are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)

— — — — —  
 — — — — —

- d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

— — — — —  
 — — — — —

Project Proponent

Date



K. DETERMINATION

On the basis of this initial study:

— It is recommended that the decision making authority find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION is hereby forwarded to the decision making authority for consideration and adoption.

— It is recommended that the decision making authority find that although the proposed project could have a significant effect on the environment, there will not be a significant effect on case because the MITIGATION MEASURES described above have been ADDED to the project and a MITIGATED NEGATIVE DECLARATION is hereby forwarded to the decision making authority for consideration and adoption.

It is found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required to evaluate the issues identified in this Initial Study.

— It is found that further information will be necessary to determine any environmental significance resulting from the project and the technical information listed below is required prior to any determination.

Maureen O'Brien  
Environmental Review Coordinator

July 8, 1988  
Date

WPC 0169P

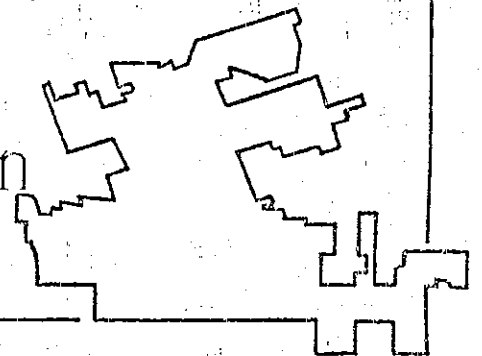
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**APPENDIX B**  
**Translation Table**



MONTGOMERY  
SPECIFIC  
PLAN • 1988

A Component of the  
Chula Vista General Plan



**Montgomery Specific Plan  
PLAN ADOPTION RECORD  
Parts One & Two**

Montgomery Planning Committee / September 2, 1987  
Chula Vista City Planning Commission / November 4, 1987 / PCM 88-10  
Chula Vista City Council / January 12, 1988 / Res. No. 13413

**Part Three**

Montgomery Planning Committee / July 6, 1988  
Chula Vista City Planning Commission / August 10, 1988 / PCM 88-10  
Chula Vista City Council / September 13, 1988 / Res. No. 13780

GREGORY R. COX - Mayor

JOHN GOSS - City Manager

GEORGE KREMPL - Director of Planning

DANIEL M. PASS, AICP - Principal Planner

WILLIAM F. HEITER - Senior Planner

FRANK J. HERRERA-A - Assistant Planner

"TABLE OF TRANSLATION"

"MONTGOMERY SPECIFIC PLAN/PART THREE  
IMPLEMENTATION PROGRAM"

General/Specific Plan Designation	Appropriate "County Zoning"	Suggested Identifiable "City Zoning"
Low/Medium Density Residential (3-6 Du/Ac)	RS6, Single Family Residential RS7, Single Family Residential	R-1, Single-Family Residence Zone R-2, One & Two Family Residence Zone
Medium Density Residential (6-11 Du/Ac)	RV15, Variable Family Residential RMH, Mobile Home Residential	R-1, Single-Family Residence Zone R-2, One & Two Family Residence Zone MHP, Exclusive Mobile Home Park Zone R-3-L, Apartment Residential Zone (Limited)
Medium/High Density Residential (11-18 Du/Ac)	RV15, Variable Family Residential RMH, Mobile Home Residential RU15, Urban Residential	R-2, One & Two Family Residence Zone MHP, Exclusive Mobile Home Park Zone R-3-L, Apartment Residential Zone (Limited)
High Density Residential (18-27 Du/Ac)	RU29, Urban Residential RU24, Urban Residential	R-3, Apartment Residential Zone R-3-H, Apartment Residential Zone
Mercantile & Office Commercial	C32, Convenience Commercial C34, General Commercial/Residential C36, General Commercial	C-O, Administrative & Professional Office Zone C-C, Central/Commercial Zone C-T, Thoroughfare Commercial Zone
Heavy Commercial	C37, Heavy Commercial	I-L, Limited Industrial Zone
Research & Limited Industrial	M52, Limited Impact Industrial M54, General Impact Industrial M58, High Impact Industrial	I-L, Limited Industrial Zone* I-R, Research Industrial Zone
Parks & Open Space	S90, Holding Area	To be determined by Special Studies A - Agricultural Zone Otay River Flood Plain: I-R (Holding Zone) West Fairfield: I-R & R-I (Holding Zone)
White Lands (Special Comprehensive Study Area)	M52, Limited Impact Industrial	To be determined by Special Studies
Special Study Area	RV15, Variable Family Residential C36, General Commercial S94, Transportation & Utility Corridor	To be determined by Special Studies (Appropriate Holding Zone)

\*It is suggested that all lands in the M54, M58, should be placed within the I-L zone, with the exception of those within the White Lands.





**APPENDIX C**  
**Traffic Analysis**



**TRAFFIC ANALYSIS**  
**for**  
**PALOMAR TROLLEY CENTER**  
Chula Vista, CA

October 14, 1988

Prepared by:

Willdan Associates  
6363 Greenwich Drive, Suite 250  
San Diego, CA 92122  
(619) 457-1199

JN:36402:js

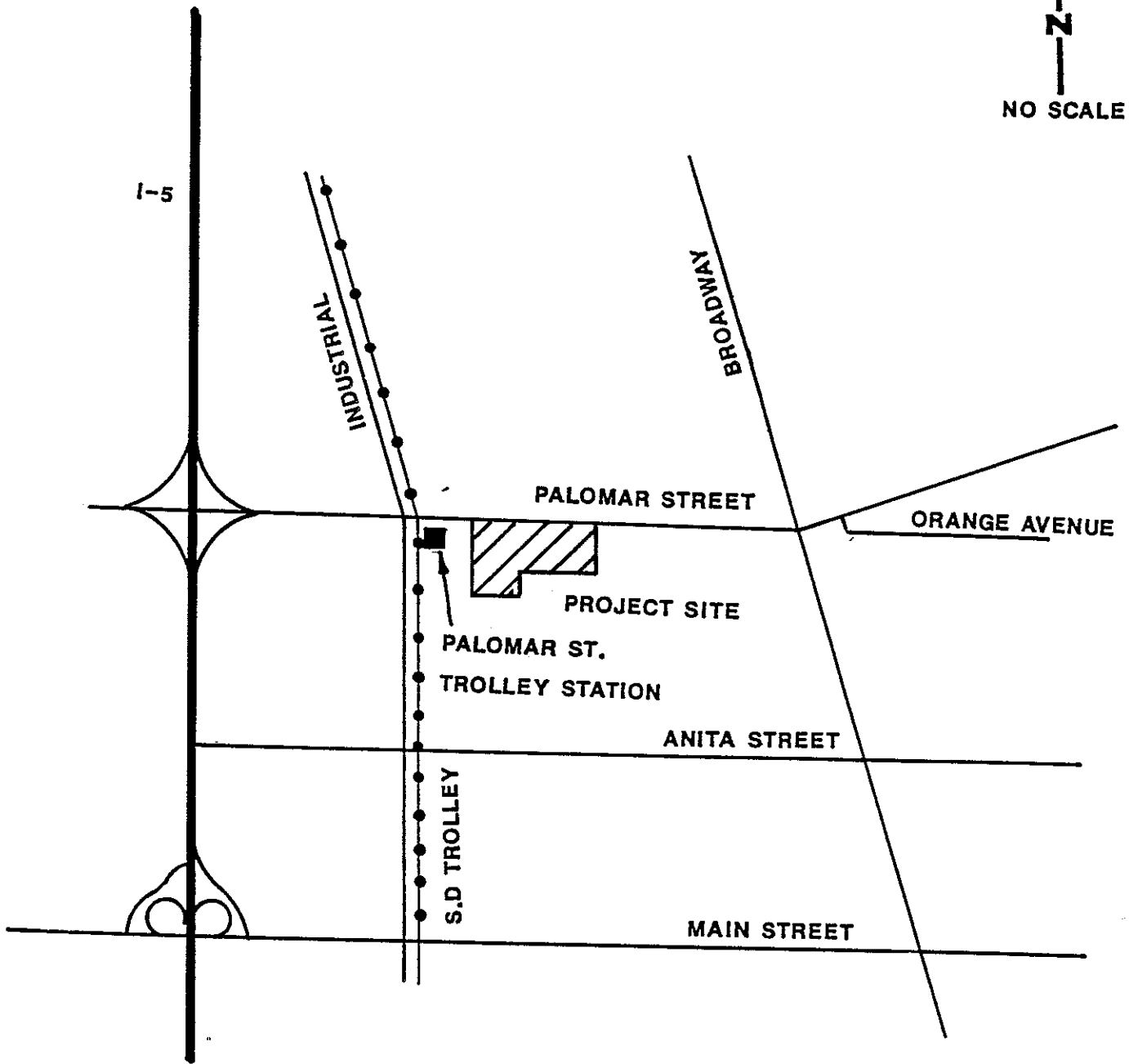
## INTRODUCTION

Pacific Scene, Inc. is proposing construction of a 12.23 acre (127,500 square feet) community shopping center on the south side of Palomar Street, east of the Palomar Street Trolley station in Chula Vista (see Figure 1). A portion of this site (3.2 acres) had previous traffic studies prepared for a proposed Home Club (Federhart & Associates, 2-19-87 and 4-30-87).

Willdan Associates has been retained to evaluate the potential transportation impacts which may be anticipated as a result of the construction of this project as proposed. This analysis identifies existing conditions in the project vicinity, generates, distributes and assigns project (and approved projects) trips onto the street system and evaluates the impact of this additional traffic. This report will also analyze potential impacts with access to the center from the south via the extending Jayken Court, as well as from Palomar Street to the north. Where potential adverse traffic related impacts are identified, measures to mitigate them are suggested.



NO SCALE



VICINITY MAP

FIGURE 1



WILLDAN ASSOCIATES

## EXISTING CONDITIONS

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley station (see Figure 2). The project proposes four points of access from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar street. The project proposes to relocate the existing traffic signal at the entrance to the trolley station to this central driveway. The site is currently vacant and surrounding land uses consist of commercial and light industrial uses. Regional access to the site is provided by Interstate 5 via its diamond interchange with Palomar Street.

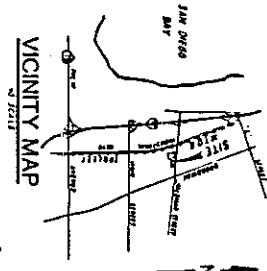
Interstate 5 is a divided eight lane freeway running north/south through western San Diego County. According to CALTRANS, the 1987 average annual daily traffic on Interstate 5 was 110,000 north and south of Palomar Street (see Figure 3).

Palomar Street is an east/west major roadway constructed to four travel lanes between Interstate 5 and Orange Avenue. Along the project frontage, Palomar Street is constructed with four travel lanes and a center left turn lane. The intersections of Industrial Boulevard, the trolley station, and Broadway with Palomar Street are controlled by traffic signals. According to the latest traffic counts (City of Chula Vista, 1987 Traffic Flow), Palomar Street carries 29,700 average daily trips (ADT) east of its diamond interchange with Interstate 5. East and west of Broadway, this facility carries 24,600 and 28,200 ADT, respectively. It should be noted, the traffic signal at the Palomar Street trolley station is approximately 380 feet east of the traffic signal at Palomar Street/Industrial Boulevard.

Broadway is a north/south major roadway running through southern San Diego (Byer Boulevard), Chula Vista, and National City (National City Boulevard). In the project vicinity, Broadway is constructed with four travel lanes (plus turn lanes) and has a raised median. Strip commercial land uses front this roadway in the project vicinity. North and south of Palomar Street, this facility currently (1987) carries 25,800 and 15,600 ADT, respectively.

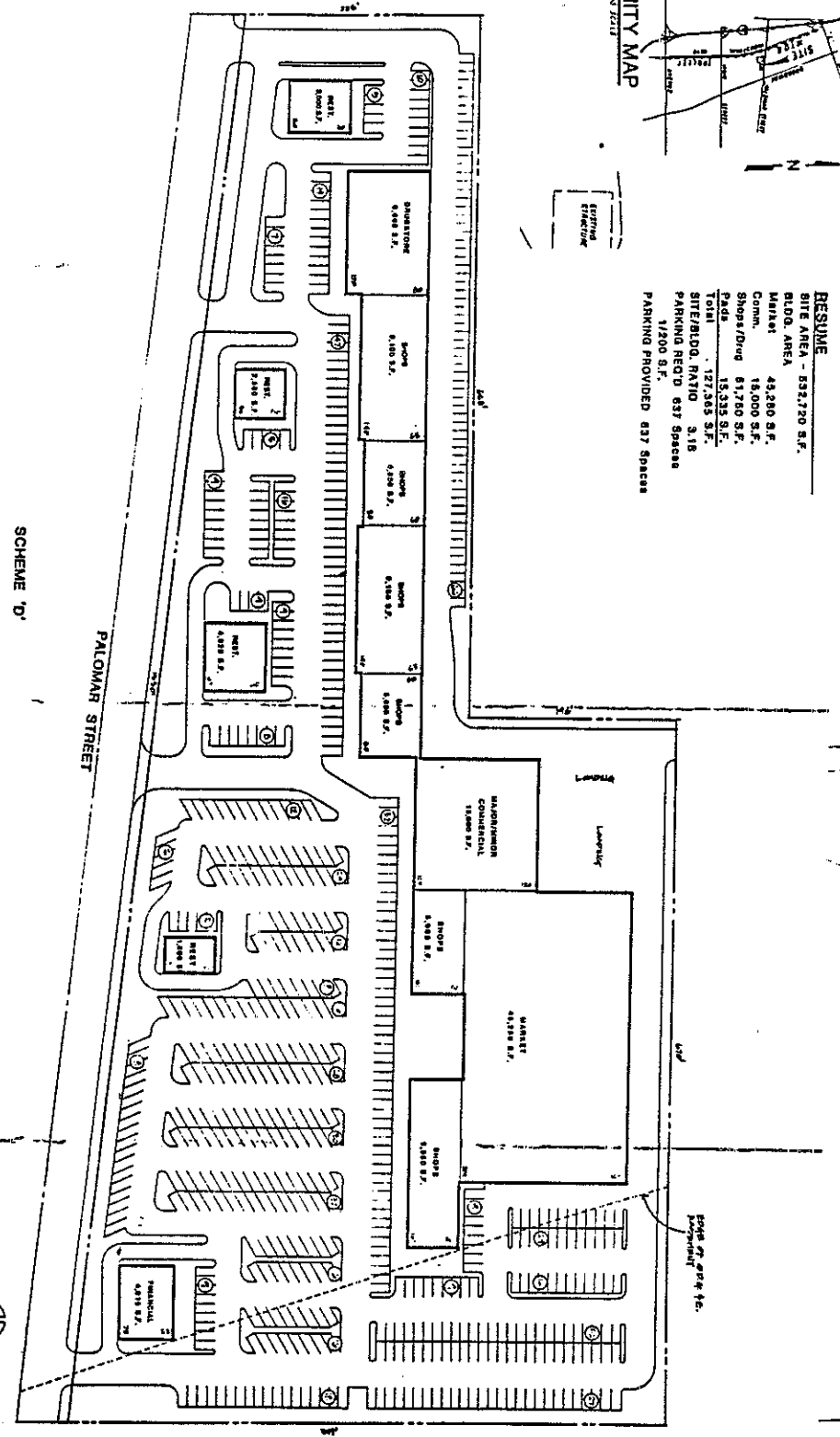
Industrial Boulevard runs north/south between 'L' Street and Coronado Avenue (in the City of San Diego) and acts as a frontage road east of Interstate 5. The San Diego trolley tracks run along the east side of this roadway along its entire length. Industrial boulevard is constructed with two travel lanes in the project vicinity and carries 5,300 and 7,100 ADT north and south of Palomar Street, respectively.

Anita Street is an east/west two lane roadway in the project vicinity (with on street parking) and serves primarily high density residential and industrial land uses. Between Industrial Boulevard and Broadway, Anita Street currently carries 4,200 ADT.



**RESUME**

SITE AREA - 532,720 S.F.  
 BLDG. AREA 43,280 S.F.  
 Market 18,000 S.F.  
 Comm. 61,700 S.F.  
 Shops/D'vg 15,335 S.F.  
 Pads 127,565 S.F.  
 Total 127,565 S.F.  
 SITE/BUILD. RATIO 3.18  
 PARKING REQ'D 637 Spaces  
 1/200 S.F.  
 PARKING PROVIDED 637 Spaces



SCHEME 'D'

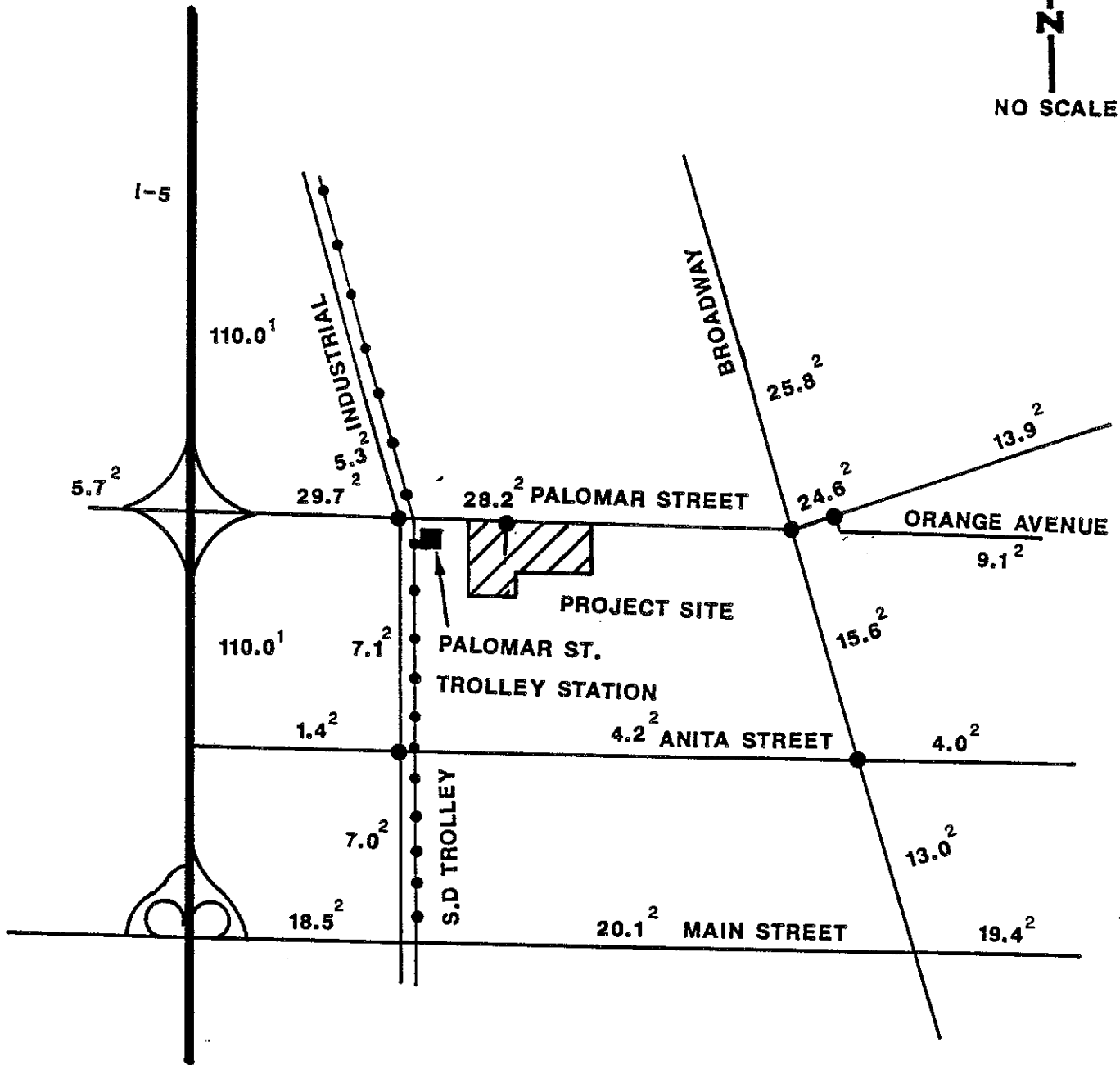
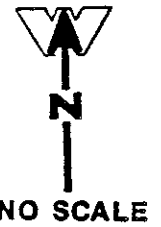
PALOMAR STREET



SITE PLAN

FIGURE 2





SOURCES: CALTRANS<sup>1</sup>  
 CITY OF CHULA VISTA, 1987 TRAFFIC FLOW<sup>2</sup>  
 ● INTERSECTIONS ANALYZED

EXISTING DAILY TRAFFIC VOLUMES IN THE PROJECT VICINITY (IN THOUSANDS)

FIGURE 3





The proposed project site is well served by public transit. As previously mentioned, the Palomar Street trolley station is adjacent to the project. The San Diego trolley provides service between downtown San Diego and the international border crossing during the peak and off peak commuting periods. San Diego Transit Local Route 32 provides service along Broadway, with connection to the 'H' Street trolley station and the international border crossing. Chula Vista Transit Local Route 702 serves Palomar Street (and the trolley station) and provides connection to the 'H' Street trolley station.

## IMPACTS

In order to evaluate the potential project and cumulative impacts, we have estimated the trips we would expect to be generated from the proposed project (and approved projects in the vicinity). These trips were then distributed and assigned to the street system and critical street segment and intersection capacities evaluated for impacts.

### Trip Generation

The traffic which will result from the proposed project (as well as approved projects) is estimated using accepted trip generation rates and peak hour factors which are based on categories of land uses. These rates have been developed by various agencies and summarized by SANDAG in their Traffic Generators manual.

According to SANDAG, the 127,500 square foot commercial site will generate 70 trips per 1,000 square feet of gross floor area (GFA) at its driveways. Some of these trips, however, will already be on the street system and are either linked with other trips or stopover trips, known also as "passerby" trips. The City of San Diego has completed research on passerby or linked trips, by conducting detailed surveys at similar sites in the City of San Diego. Linked trips refer to a driver stopping at a commercial establishment on their way home from another trip, then continuing home. Therefore, the trip is already on the street system, and should not be "double counted" by the gross traffic generation rate. The recommended cumulative or linked trip rate for a community stopping center (100,000 - 300,000 square feet of GFA) is 49 trips per 1,000 square feet of GFA (per July 2, 1986 memo from Alan Holden, Jr., Deputy Director, Transportation and Traffic Engineering Division, City of San Diego). This trip reduction was verbally agreed upon by the City of Chula Vista Traffic Engineer (Rosenberg, 10-7-88).

Table 1 summarizes the generation of expected trips from the proposed project and recently approved projects specified by the City of Chula Vista. Table 2 indicates the trip generation for the project site assuming development under current light industrial zoning.

As shown the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). The approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT, with 132 trips occurring during the PM peak hour. Therefore, the proposed project would generate an additional 5,148 ADT and 494 PM peak hour trips over currently zoned light industrial land uses. Due to the proposed land uses (primarily commercial), it was determined the PM peak hour was critical since only a minimal amount of commercial traffic is expected during the morning peak hour. Analyzing the peak hour is important, because this generally places the highest demand on the surrounding street system.

Table 1

TRIP GENERATION

## Proposed Project:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>Hour Out</u>
Comm.	127,500 sf	49/1,000 (linked)	6,248	10%	313	313
Comm.	127,500 sf	70/1,000 (driveway)	8,925	10%	447	446
Tract 86-18:*						
Comm. Shops	12,000 sf	40/1,000	480	9%	22	22
Light Ind.	54,000 sf	10/1,000	<u>540</u>	15%	<u>16</u>	<u>65</u>
			1,020		38	87
Home Club, Chula Vista:**						
Home Club	109,848 sf	60/1,000	6,590	9%	300	300
Retail	42,625 sf	40/1,000	1,700	9%	80	80
Fast Food	2,529 sf	700/1,000	1,770	8%	70	70
Light Ind.	265,000 sf	8/1,000	<u>2,120</u>	12%	<u>50</u>	<u>200</u>
			12,180		500	650

Table 2

TRIP GENERATION

## Current Zoning:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>Hour Out</u>
Light Ind.	12.23 ac	90/ac	1,100	12%	26	106

\* Trip generation data obtained from addendum to traffic study for Palomar Street Home Club, Chula Vista (J. Federhart & Associates, 4-30-87).

\*\* Trip generation data obtained from Traffic Impact Analysis Home Club, Chula Vista, California, Linscott, Law & Greenspan, 10-20-88.

### Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks, and public buildings. A major element is the interaction between commercial centers and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site (Home Club, Chula Vista, Federhart & Associates, 2-19-87 and 4-30-87). This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 4 shows the distribution of trips to and from the proposed project.

As shown, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35-15 percent north and south along Broadway, respectively and 10 percent continuing east along Palomar Street and Orange Avenue. The remaining 40 percent will orient to and from the west along Palomar Street, with 30 percent estimated to access Interstate 5 for destinations north and south.

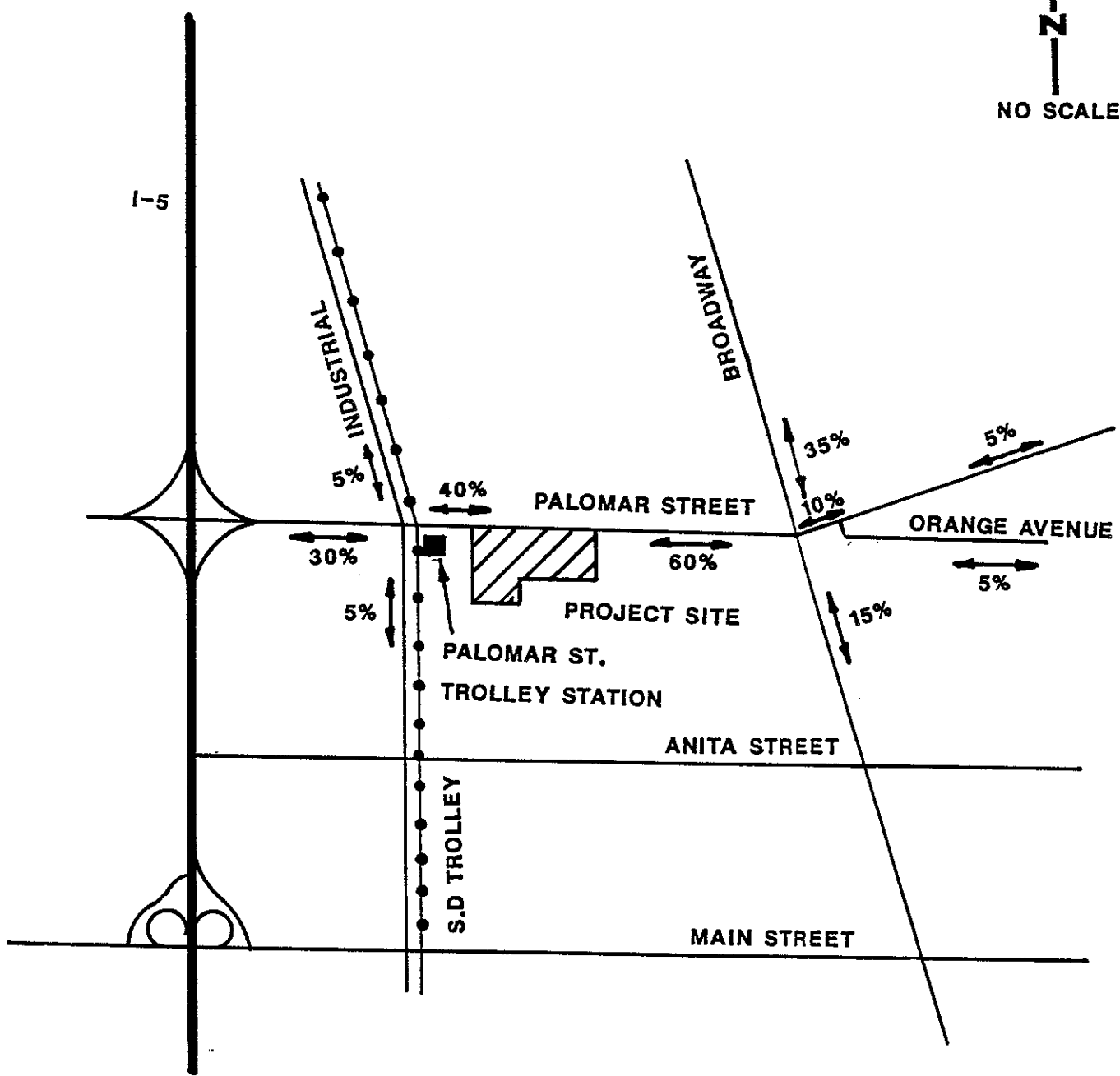
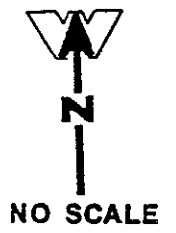
### Street Segments (short term)

Figure 5 shows the assignment of the proposed project's daily and PM peak hour trips. Figure 6 shows existing plus project plus approved projects 86-18 daily traffic volumes on the surrounding street network. It should be noted, the approved projects daily and PM peak hour trips were assigned consistent with their respective Traffic Studies. Figure 7 shows existing plus project plus approved projects daily traffic volumes assuming the project can also take access south via Jayken Court to Anita Street.

In order to assess the short range impacts of the proposed shopping center on street segment capacities, we have utilized Table 3 (City of Chula Vista Proposed Standard Street Classifications), which was developed by discussion with the City of Chula Vista Traffic Engineer (Rosenberg) and is based on approximate level of service (LOS C) capacities and correlates ADT to levels of service for different road classifications. Table 4 shows existing and existing plus project plus approved projects daily traffic volumes and approximate levels of service.

As shown, all roadway segments operate at LOS C or better in the project vicinity under existing conditions. With addition of the approved projects and proposed shopping center, a number of segments will be significantly impacted.

Palomar Street between Interstate 5 and Broadway is estimated to carry between 34,700 and 36,900 ADT under existing plus project plus approved project conditions. This is LOS E for the existing four lane major facility.

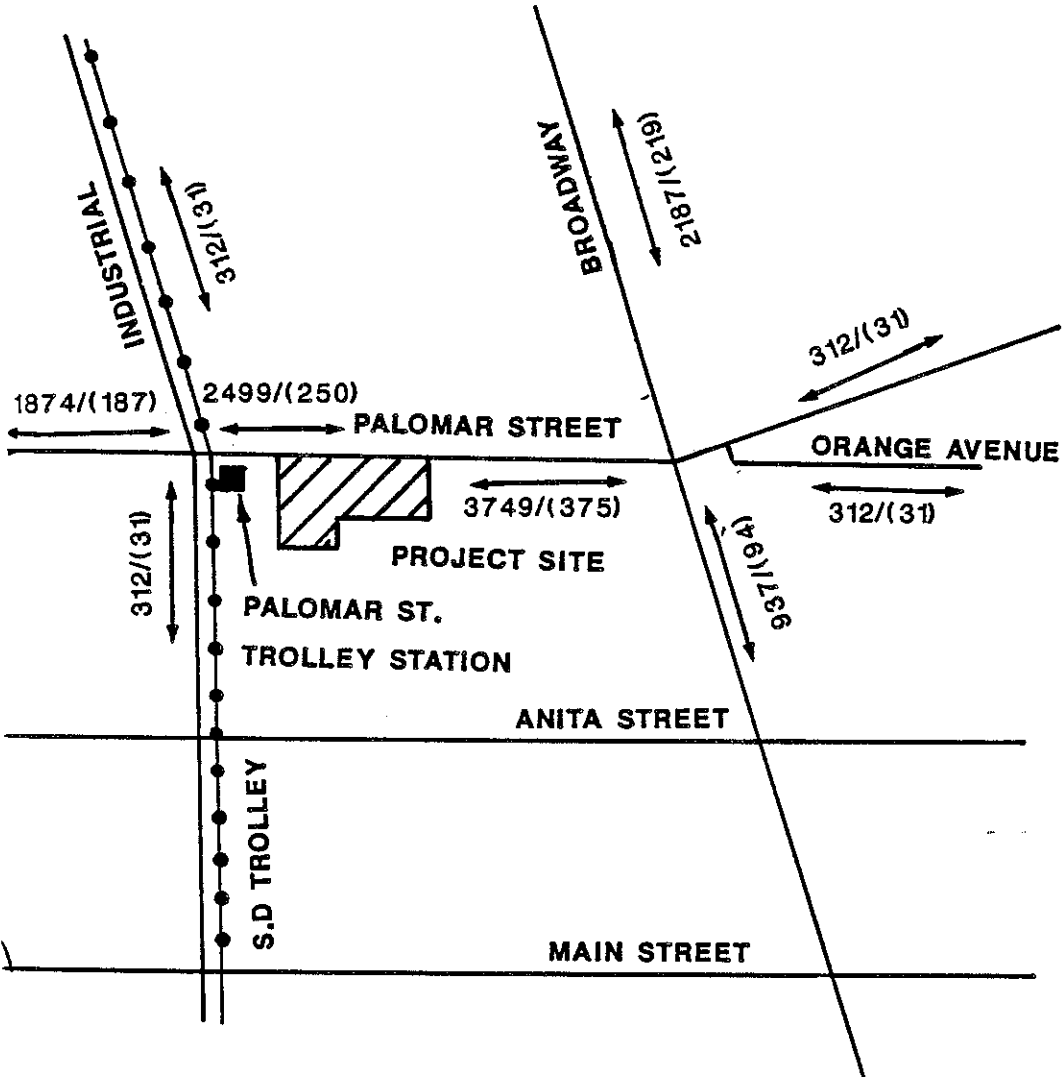
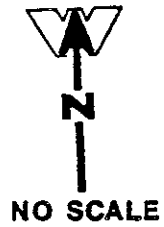


TRIP DISTRIBUTION FOR THE PROPOSED PROJECT

FIGURE 4



WILLDAN ASSOCIATES



AK HOUR)

OF PROPOSED PROJECT TRIPS

FIGURE 5



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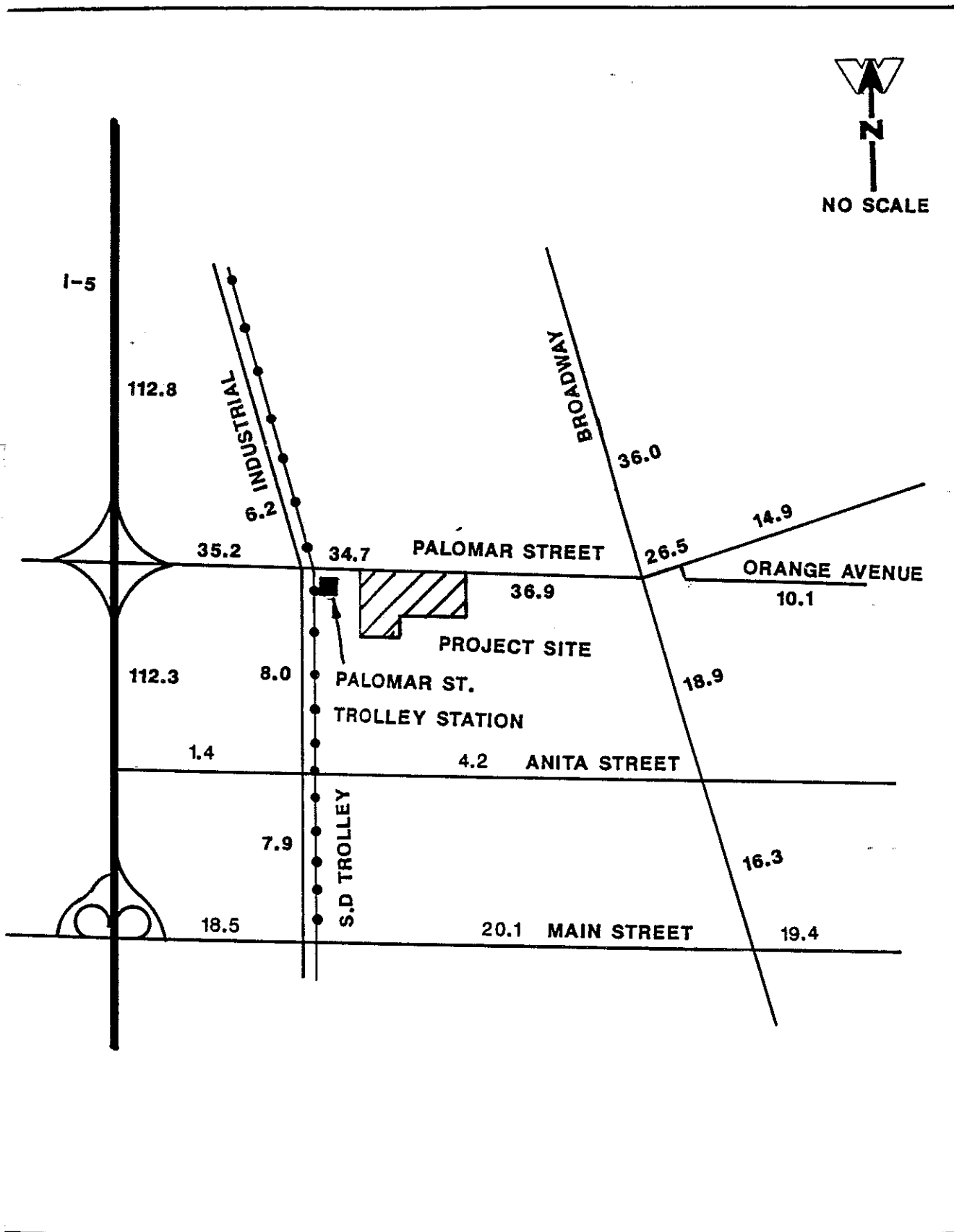
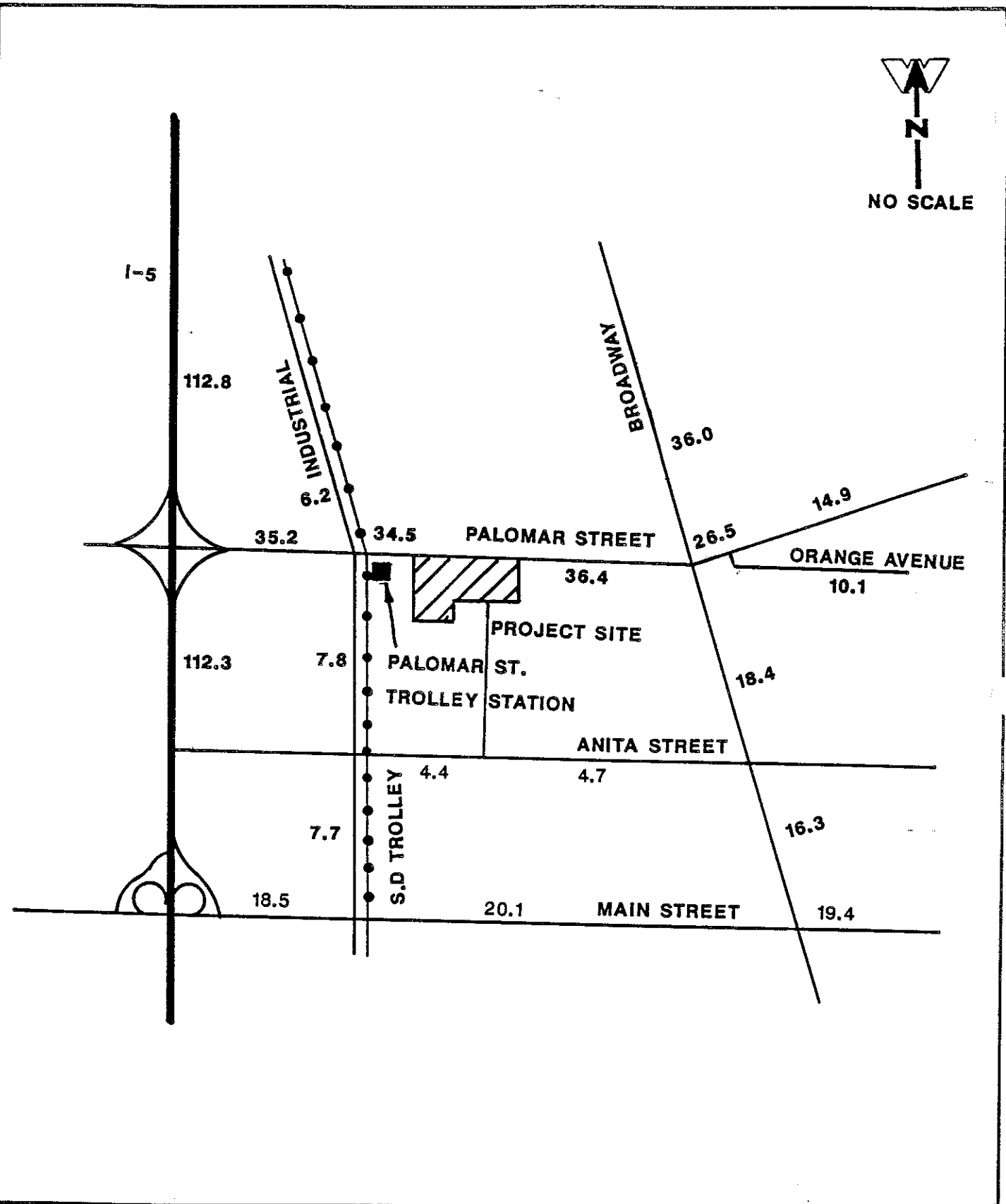


FIGURE 6



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EXISTING + PROJECT + APPROVED PROJECTS  
 DAILY TRAFFIC VOLUMES WITH ACCESS TO  
 JAYKEN COURT (IN THOUSANDS)

FIGURE 7



WILLDAN ASSOCIATES



Table 3.

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION  
AVERAGE DAILY VEHICLE TRIPS

ROAD		LEVEL OF SERVICE				
CLASS	X-SECTION V/C RATIO	A (.6)	B (.7)	C* (.8)	D (.9)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500
Major Road	80/100	22,500	26,300	30,000	33,800	37,500
Collector	64/84	15,000	17,500	20,000	22,500	25,000
Modified Collector	52/72	11,300	13,100	15,000	16,900	18,800
Light Collector	40/60	7,500	8,800	10,000	11,300	12,500

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.

Table 4

Selected Street Segments and Associated Levels of Service

(volumes in thousands)

<u>Street Segment</u>	<u>Configuration</u>	<u>Existing Volume</u>	<u>LOS</u>	<u>Existing + Project *</u>	<u>LOS</u>	<u>With Access to South*</u>	<u>LOS</u>
<u>Palomar St.</u>							
- 1-5 to Industrial	4 lanes	29.7	C	35.2	E	35.2	E
- Industrial/Trolley Station	"	28.2	C	34.7	E	34.5	E
- Trolley Station/Broadway	"	28.2	C	36.9	E	36.4	E
- Broadway/Orange	"	24.6	B	26.5	C	26.5	C
<u>Industrial Blvd.</u>							
- N. of Palomar	2 lanes	5.3	A	6.2	A	6.2	A
- Palomar to Anita	"	7.1	A	8.0	B	7.8	B
- Anita/Main	"	7.0	A	7.9	B	7.7	B
<u>Broadway</u>							
- N. of Palomar	4 lanes	25.8	B	36.0	E	36.0	E
- S. of Palomar	"	15.6	A	18.9	A	18.4	A
<u>Anita St.</u>							
- Industrial/Jayken	2 lanes	4.2	A	4.2	A	4.4	A
- Jayken/Broadway	"	4.2	A	4.2	A	4.7	A

\* Includes trips from approved projects.

Broadway north of Palomar Street is projected to operate at LOS E under existing plus project plus approved project conditions as a four lane major facility. No significant impacts are expected on Broadway south of Palomar Street. Industrial Boulevard and Anita Street will both continue to operate at acceptable levels of service under existing plus project plus approved project development in their current two lane configurations.

Should the proposed project take access to Anita Street via Jayken Court (as well as to Palomar Street), similar impacts are expected to the street segments in the project vicinity.

### Intersections (short term)

Intersections are of particular interest, since the level of service at which an intersection operates is an indication of the delay which can be expected. With respect to this project, the intersections of interest are Palomar Street/Industrial Boulevard, Palomar Street/project entry, Palomar Street/Trolley Station access, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. Table 5 summarizes the projected levels of service (PM peak hour) at these intersections for existing conditions and existing plus project plus approved projects. The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the level of service expected. The method used was specified by the City of Chula Vista assigning hourly lane capacities of 1,700 and 1,500 vehicles per hour of green time for through and turn lanes, respectively, and summing of the critical volumes. Figures A-1 through A-19 in the Appendix show these calculations and Tables A-1 and A-2 contain a description of conditions and ranges for the various levels of service. Since the Industrial Boulevard/Anita Street intersection is controlled by a four-way stop, the Multi-way Stop Control Analysis described in "Transportation Research Board Special Report No. 209. 1985 Highway Capacity Manual" was utilized to analyze this intersection under existing and existing plus project plus approved projects conditions.

Under existing conditions, the Palomar Street/Industrial Boulevard intersection operates at LOS F during the PM peak hour. However, if this intersection were improved to accommodate one left, one through, and one right turn lane on the northbound and southbound approaches (with left turn phasing), the level of service would improve to "C". When the proposed project's and approved projects peak hour trips are added to this intersection, level of service remains at "C".

The Palomar Street/Trolley Station intersection currently operates at LOS C with no north/south left turn phasing provided. The project proposes to remove the traffic signal from this location and relocated it to the east to provide improved signal spacing. This will not impact the capacity of the trolley station access as it will still operate at LOS C. Left turns from the station will be more difficult, although with signals on either side there should be sufficient gaps to allow these turn moves. Should the project develop under current zoning (light industrial) and take access from the existing Trolley Station signal, the resulting level of service would be C (see figure A-20 in the Appendix). However, the impacts associated with the close signal spacing (to industrial Boulevard) would be magnified under this scenario.

The project entry will operate at LOS C assuming it is signalized and westbound Palomar Street is improved to accommodate dual left turn lanes. This level of service remains at LOS C if access is provided south to Anita Street via Jayken Court.

The intersection of Palomar Street/Broadway is currently fully phased and operates at LOS B during the PM peak hour. The level of service falls to "D" under the existing plus project scenario. When the proposed project was assumed to have access to Anita Street via Jayken Court, the level of service remains at D. The level of service at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. When access is also assumed south to Anita Street via Jayken Court, the level of service at this intersection is B. All other intersections operate at LOS B or higher during the PM peak hour under either access scenario.

Table 5  
Intersection Levels of Service in the Project Vicinity

<u>Intersection</u>	<u>Existing LOS</u>	<u>Existing + Project LOS*</u>	<u>With Access Assumed South LOS*</u>
Palomar/Industrial	F	C <sup>1</sup>	C <sup>1</sup>
Palomar/Broadway	B	C <sup>1</sup>	C <sup>1</sup>
Palomar/Orange	A	A	A
Broadway/Anita	A	A	A
Industrial/Anita	A/B	B	B
Palomar/Trolley Station	C	C <sup>2</sup>	C <sup>2</sup>
Palomar/Project Entry	N/A	C <sup>1</sup>	C

\* Includes approved projects

1 With mitigation

2 Assumes unsignalized

### Long Range Impacts

The City of Chula Vista is currently revising their Circulation Element in conjunction with the revision to their General Plan. As part of the Circulation Element update, a series of buildout travel forecasts were performed (four density scenarios) to estimate future street classifications required to accommodate travel demand. Preliminary forecast volumes for the street network in the project vicinity indicate future volumes will stabilize at today's levels or decrease. This seems reasonable, because land uses in the project vicinity are virtually buildout today, and future development in this area would be a result of redevelopment. Also, with buildout of planned land uses in the City's eastern area, some existing traffic could be redistributed. Therefore, we will consider the existing plus project plus Chula Vista Tract 86-18 scenario as the worst case analysis. It should be noted, that volumes along Interstate 5 will be much higher than today. This is a result of future development in the Otay Mesa area.

## Access

Primary access to the proposed project is via a central driveway opposite the access to the recently constructed shopping center on the north side of Palomar Street. Three other points of access are proposed, which would be restricted to right turns in and out only (this would be in conjunction with the construction of a raised median on Palomar Street along the project frontage).

These right turn only driveways will handle relatively small volumes of traffic. Since Palomar Street is relatively straight and level, there will be good sight distance from all driveways. The proposed traffic signal will also create gaps in traffic. Therefore, we can conclude that these driveways will operate with no problems.

## Internal Circulation and Parking

The current site plan (refer to Figure 2) indicates four points of access to the center's internal circulation system. The central access is via the signalized project entry and three right turn only driveways to the east. Circulation with the center is provided by an inner loop road around the center. Connecting to the inner loop road are a series of parking aisles. It should be noted, if access is taken south to Anita Street via Jayken Court, internal circulation should be reanalyzed at the time a modified site plan is available.

The plan also indicates four restaurant pads on the north side of the property (adjacent to Palomar Street) which could include drive through operation. This could significantly affect internal traffic patterns should all four restaurants operate with drive through windows. Since specific details regarding the restaurant site plan and drive through operation are not available at this time, they should be evaluated on an individual basis at the conditional use permit stage of development. At that time, issues such as stacking and site specific internal circulation should be addressed to the satisfaction of the City Traffic Engineer.

The site plan shows 637 parking spaces to serve the 127,500 square foot shopping center. This equates to one parking space for every 200 square feet of gross floor area (GFA). This is consistent with City of Chula Vista zoning requirements for commercial uses. The spaces are located evenly throughout the site, therefore no parking impacts are anticipated.

## MITIGATION MEASURES

The proposed Palomar Trolley Center will add approximately 6,250 newly generated ADT to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the projects and approved projects traffic is added, Palomar Street is projected to fall to LOS E. However, when the proposed project improves Palomar Street to major standards (with a raised median) along its frontage, this will increase capacity and improve traffic flow. Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects. The City of Chula Vista will be improving the segment of Palomar Street between Interstate 5 (and associated ramp improvements) and Industrial Boulevard. This will mitigate the projected LOS E and help traffic flow. Since the intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since this analysis was conducted under peak conditions, the overall level of service (LOS E) is overstated.

The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F. If both north and southbound Industrial Boulevard approaches were improved to provide one left, one through, and one right turn lane (along with full signal phasing), level of service would improve to C during the PM peak hour. Level of service would remain at C when proposed project and approved project trips are added to existing traffic flows. The project should contribute toward this improvement on a fair share basis.

The Palomar Street/Trolley Station driveway intersection is proposed to be modified by the relocation of the traffic signal to the main project entry. This should have only insignificant impacts to the existing and future traffic. By relocating this signalized intersection further to the east and increasing spacing between the existing traffic signal at industrial Boulevard, this will create a beneficial impact for traffic flow along this section of Palomar Street. The project should provide an internal connection to the Trolley Station so that left turning vehicles from the Trolley Station can use the projects signalized entry to avoid very long traffic delays during the PM peak hour.

The Palomar Street/Project entry is projected to operate at LOS C assuming dual left turn lanes on westbound Palomar Street during the PM peak hour with access assumed to Palomar Street only. Also, an acceptable level of service is anticipated during the AM peak hour with few turning vehicles in the traffic stream.

In order to achieve LOS C during the PM peak hour, the Palomar Street/ Broadway intersection will require improvement of eastbound Palomar Street to accommodate a dual left turn lane under existing plus project plus approved projects development. All other intersections will operate at acceptable levels of service during the PM peak hour in their existing configurations under existing plus project plus approved project development. Street segment and intersection levels of service were consistent when access was assumed to Palomar Street only and with access to Anita Street via Jayken Court.

Palomar Street and Broadway could deteriorate to LOS E under short term cumulative development. Since these streets could not be feasibly widened to six travel lanes, short term adverse traffic impacts could result. However, most intersections in the project vicinity are projected to operate at acceptable levels of service during the PM peak hour, and this is generally where "bottlenecks" in the street system occur.

A detailed site analysis should be submitted to the City Traffic Engineer for the individual restaurant sites at the time of conditional use permit application.

Table A-1

Descriptions of Conditions for Various Levels of Service

<u>Level of Service</u>	<u>Operating Conditions</u>
A	Free flow; speed controlled by driver's desires, speed limits, or physical roadway conditions.
B	Stable flows; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	Stable flow; speeds and maneuverability more closely restricted.
D	Approaches unstable flow; tolerable speeds can be maintained, but temporary restrictions to flow cause substantial drops in speed. Little freedom to maneuver, comfort and convenience low.
E	Volumes near capacity; flow unstable; stoppages of momentary duration. Ability to maneuver severely limited.
F	Forced flow; low operating speeds; volumes below capacity, queues form.

Table A-2

Level of Service Ranges

For Signalized Intersections

<u>Level of Service</u>	<u>Typical V/C Ratio</u>
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	varies

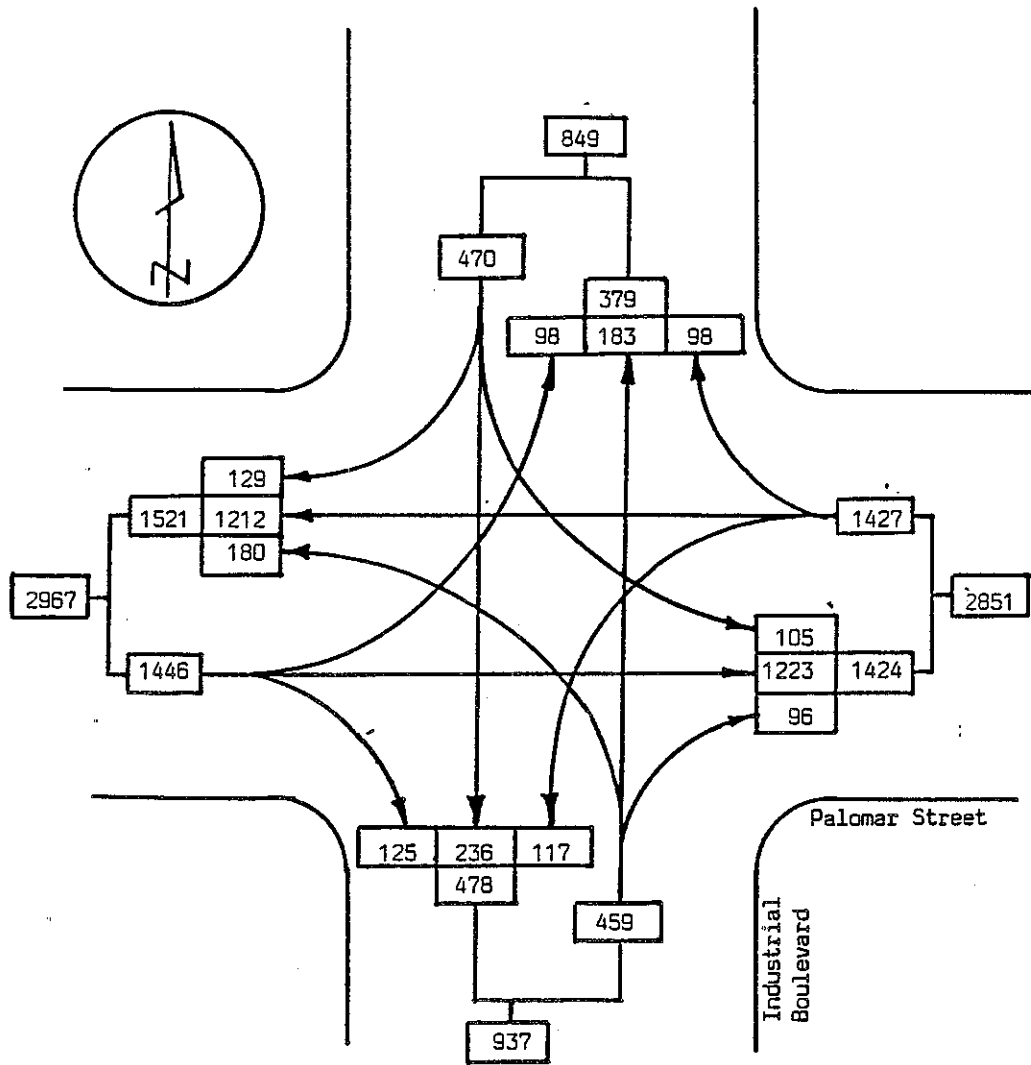


Table A-3

Level of Service and Expected Delay  
For Reserve Capacity Ranges

Unsignalized Intersections

<u>Reserve Capacity</u>	<u>Level of Service</u>	<u>Expected Traffic Delay</u>
400 or More	A	Little or No Delay
300 to 399	B	Short Traffic Delays
200 to 299	C	Average Traffic Delays
100 to 199	D	Long Traffic Delays
0 to 99	E	Very Long Traffic Delays
Less than 0	E	Failure - Extreme Congestion
(Any Value)	F	Intersection Blocked by External Causes



ICU ANALYSIS

E/B Palomar Street 1 left, 1 through, 1 through + right  
 W/B Palomar Street 1 left, 1 through, 1 through + right  
 N/B Industrial Boulevard 1 left, 1 through + right  
 S/B Industrial Boulevard 1 left + through + right

$$\frac{1223 + 125}{3400} + \frac{117}{1500} + \frac{180 + 183}{1500} + \frac{129 + 236 + 105}{1500} =$$

$$.40 + .10(\text{Min}) + .24 + .31 = 1.05\text{---LOS F}$$

Improve N/B + S/B Industrial to accommodate 1 left, 1 through, and 1 right

$$\frac{1223}{3400} + \frac{117}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.36 + .10(\text{Min}) + .14 + .12 = .72\text{---LOS C}$$

Existing Conditions

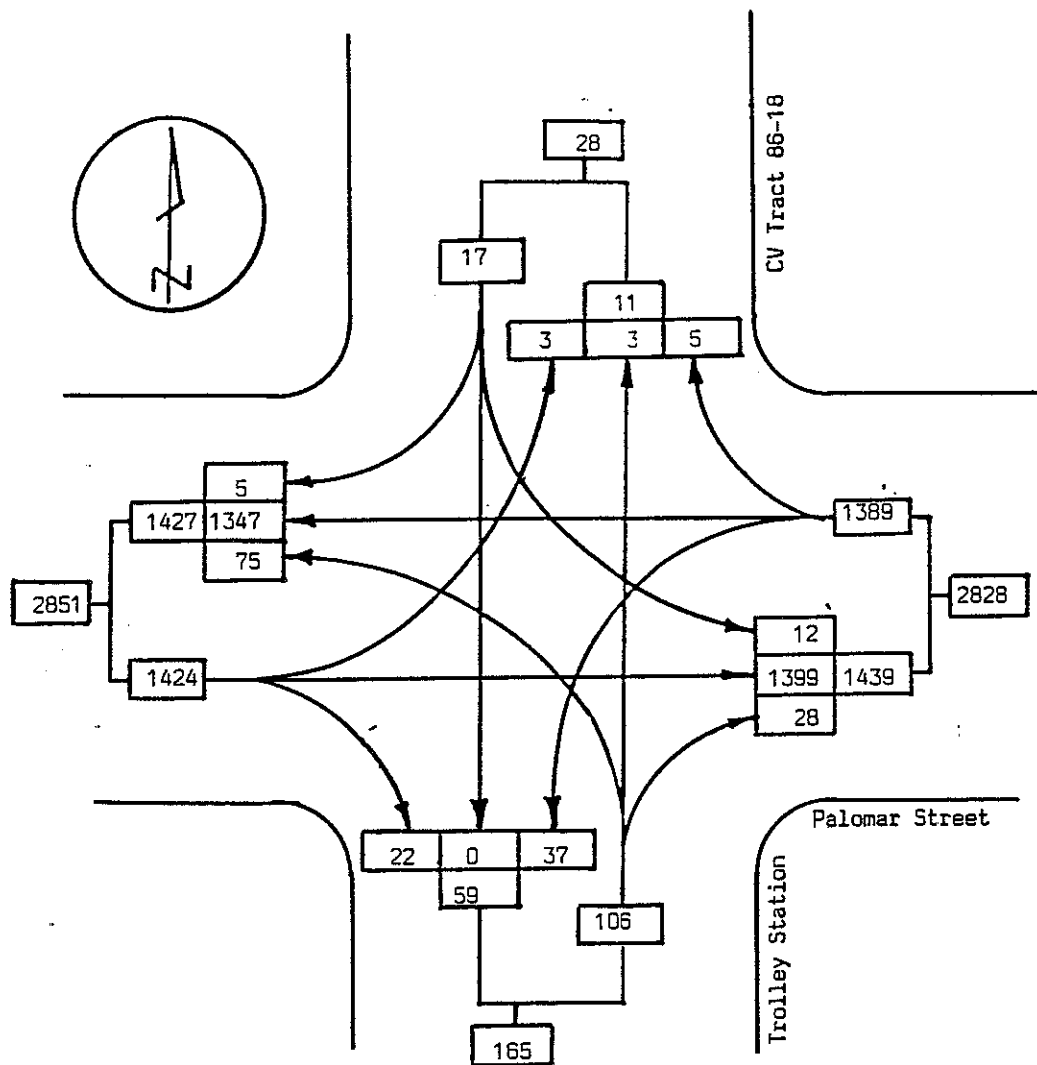
PM Peak Hour  
 (4:45 - 5:45)  
 5/5/88

Figure A - 1

Palomar Street/Industrial Boulevard



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ICU ANALYSIS

E/B Palomar Street                    1 left, 2 through, 1 right  
W/B Palomar Street                    1 left, 1 through, 1 through + right  
N/B Trolley Station                    1 left + through, 1 right  
S/B CV 86-18                            1 left + through, 1 right

$$\frac{1399}{3400} + \frac{37}{1500} + \frac{75 + 3}{1500} + \frac{12 + 0}{1500} =$$

$$.41 + .10(\text{Min}) + .10(\text{Min}) + .10(\text{Min}) = .71\text{----LDS C}$$

Existing Conditions

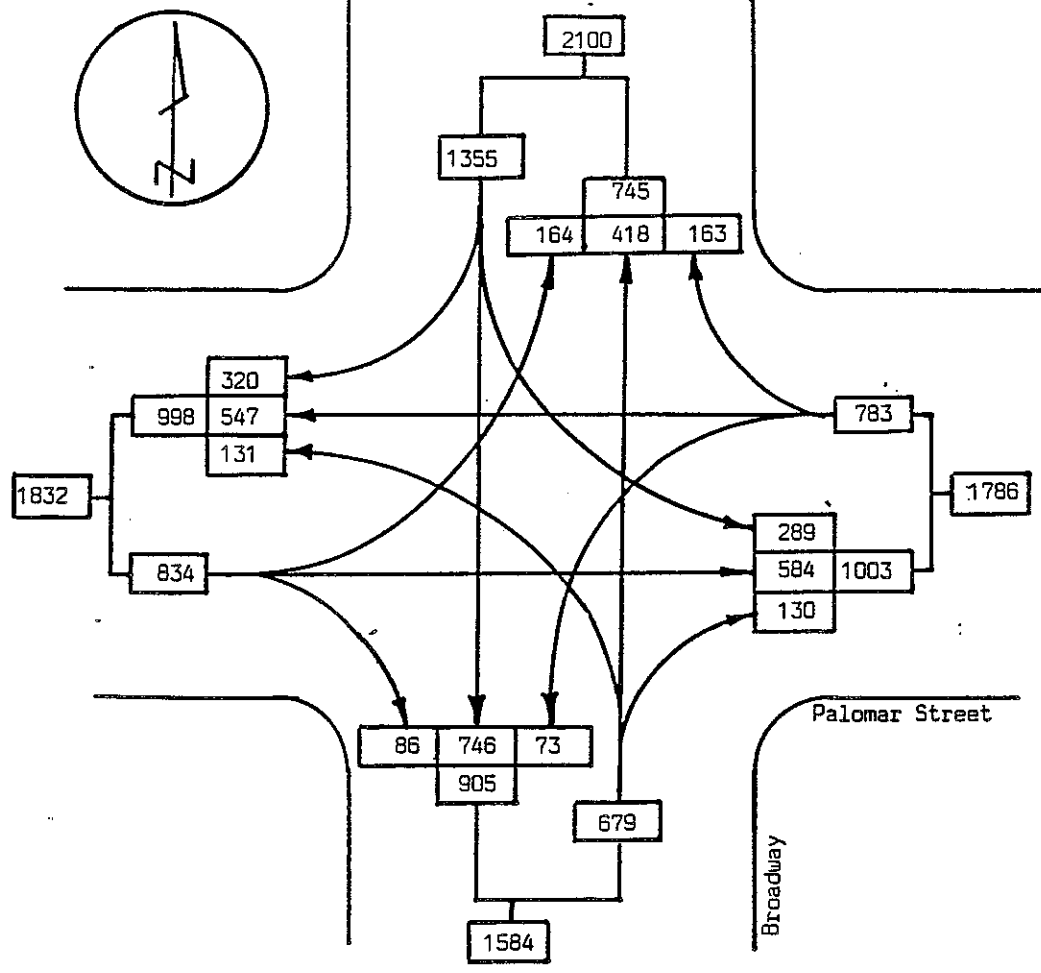
Palomar Street/Trolley Station

PM Peak Hour  
(4:45 - 5:45)  
5/5/88

Figure A - 2



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ICU ANALYSIS

- E/B Palomar Street            1 left, 2 through, 1 right
- W/B Palomar Street        1 left, 1 through, 1 through + right
- N/B Broadway                1 left, 2 through, 1 right
- S/B Broadway                1 left, 2 through, 1 right

$$\frac{547 + 163}{3400} + \frac{164}{1500} + \frac{746}{3400} + \frac{131}{1500} =$$

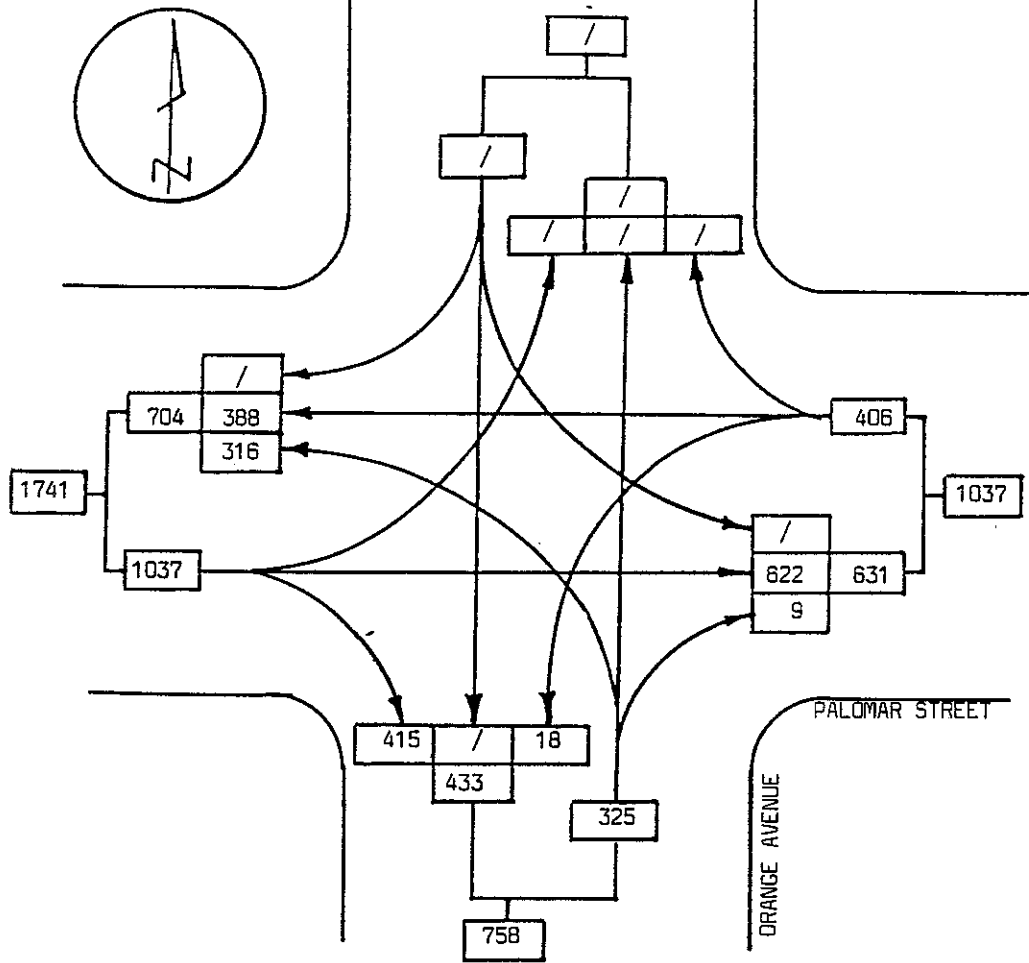
$$.21 + .11 + .22 + .10(\text{Min}) = .64 \text{---LOS B}$$

Existing Conditions  
Palomar Street/Broadway

PM Peak Hour  
(4:45 - 5:45)  
5/5/88

Figure A - 3





ICU ANALYSIS

E/B Palomar Street            2 through, 1 right  
 W/B Palomar Street        1 left, 2 through  
 N/B Orange Avenue        2 left, 1 right

$$\frac{622}{3400} + \frac{18}{1500} + \frac{316}{3000}$$

$$.18 + .10(\text{min}) + .11 = .39\text{---LOS A}$$

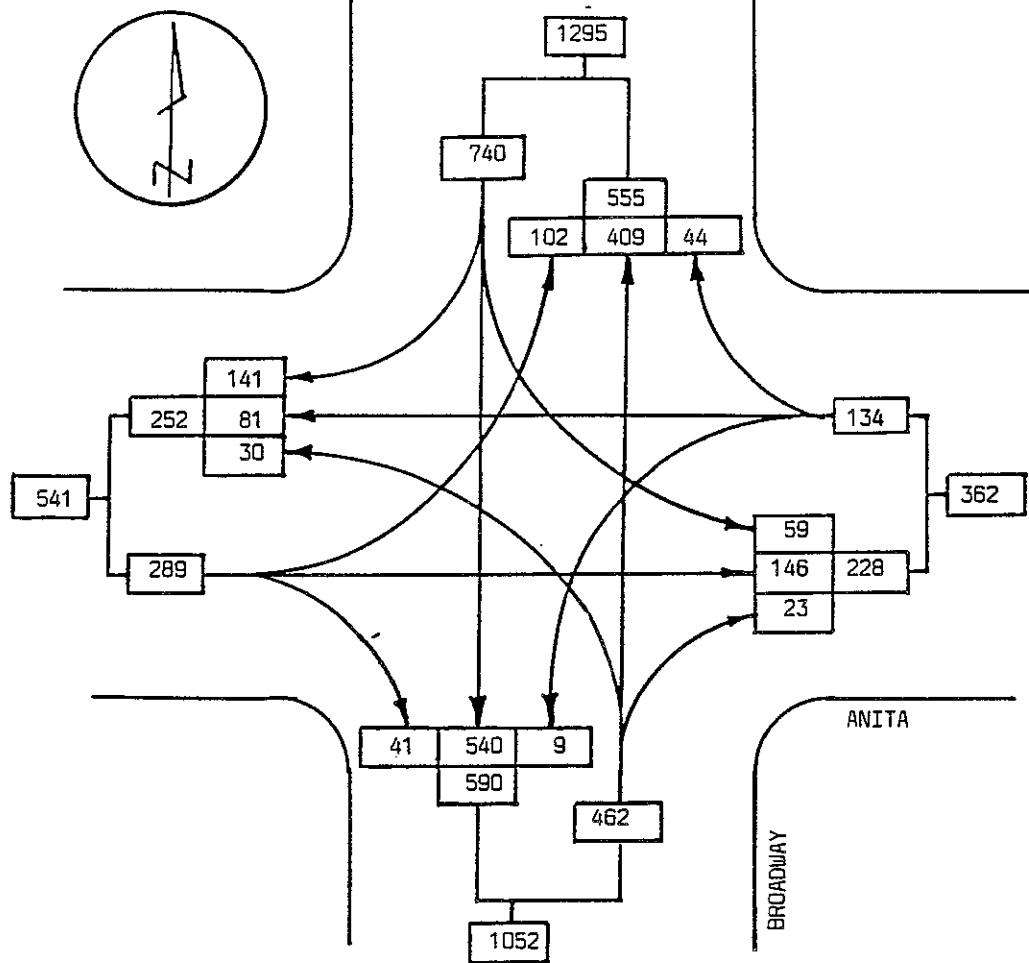
EXISTING CONDITIONS

PALOMAR STREET/ORANGE AVENUE

PM PEAK HOUR  
 (4:45 - 5:45 PM)  
 10/6/88

FIGURE A - 4





ICU ANALYSIS

N/B Broadway                    1 left, 1 through, 1 through + right  
 S/B Broadway                   1 left, 2 through, 1 free right  
 E/B Anita Street                1 left, 1 through + right  
 W/B Anita Street                1 left, 1 through + right

$$\frac{540}{3400} + \frac{30}{1500} + \frac{146 + 41}{1700} + \frac{9}{1500}$$

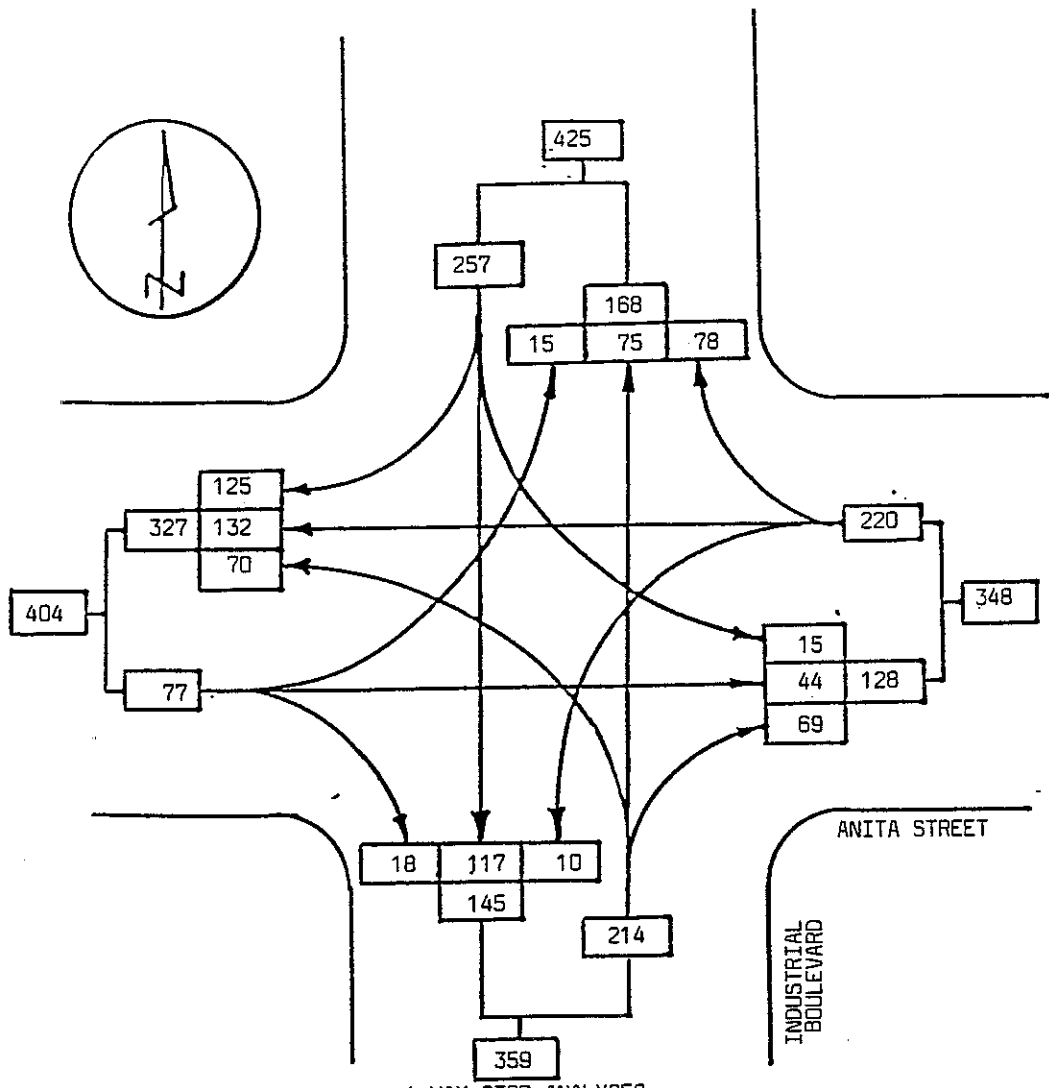
$$.16 + .10(\text{min}) + .11 + .10(\text{min}) = .47\text{---LOS A}$$

EXISTING CONDITIONS  
 BROADWAY/ANITA STREET

PM PEAK HOUR  
 (4:45 - 5:45)  
 10/6/88

FIGURE A - 5





4-WAY STOP ANALYSES

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

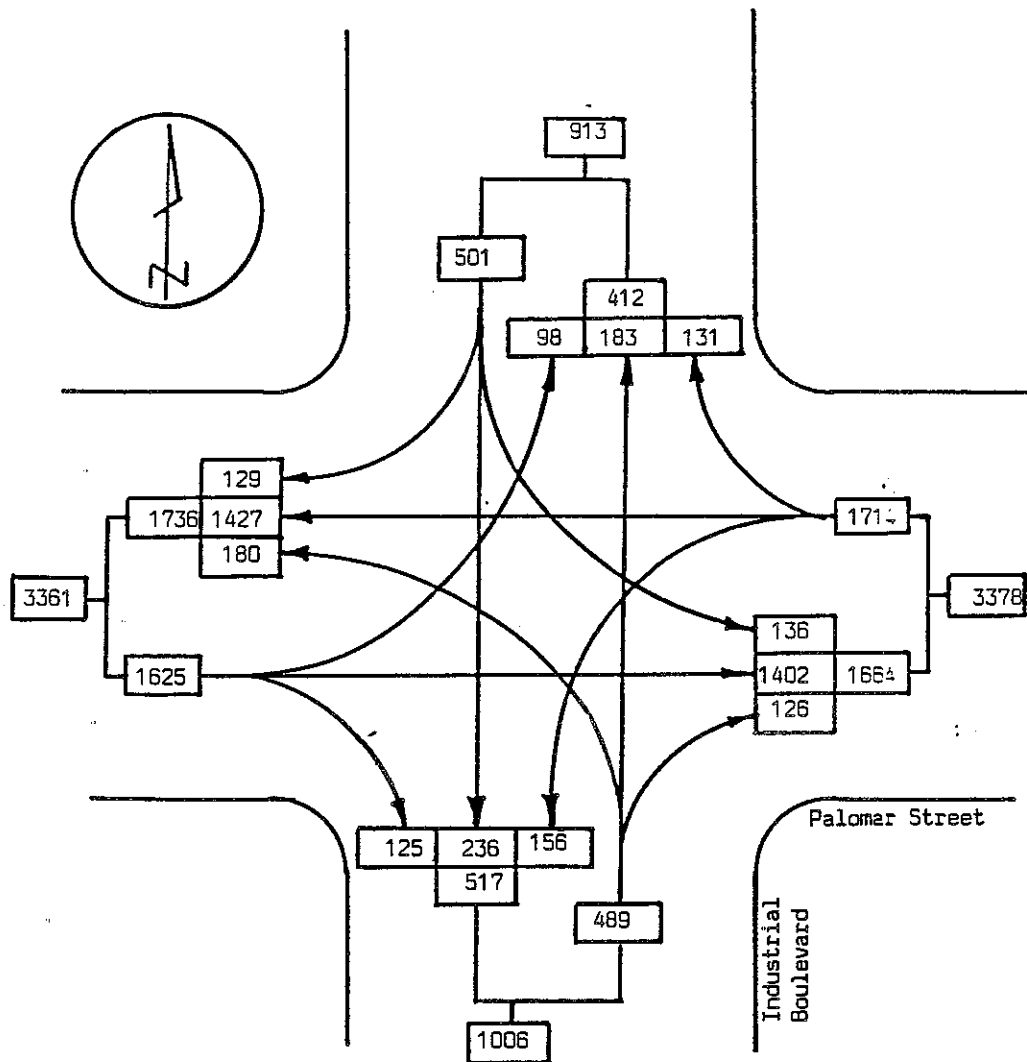
257 + 77 + 214 + 220 = 768----LOS A/B

EXISTING CONDITIONS  
INDUSTRIAL BOULEVARD/ANITA STREET

PM PEAK HOUR  
(4:45 - 5:45)  
10/6/88

FIGURE A - 6





ICU ANALYSIS

E/B Palomar Street	1 left, 1 through, 1 through + right
W/B Palomar Street	1 left, 1 through, 1 through + right
N/B Industrial Boulevard	1 left, 1 through + right
S/B Industrial Boulevard	1 left, 1 through + right

$$\frac{1402 + 125}{3400} + \frac{156}{1500} + \frac{236 + 129}{1700} + \frac{180}{1500}$$

$$.45 + .10 + .21 + .12 = .88 \text{ ----LOS D}$$

Improve N/B and S/B Industrial Boulevard to 1 left, 1 through, 1 right and add exclusive right turn lanes on E/B and W/B Palomar Street.

$$\frac{1402}{3400} + \frac{156}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.41 + .10 + .14 + .12 = .77 \text{ ----LOS C}$$

PM Peak Hour

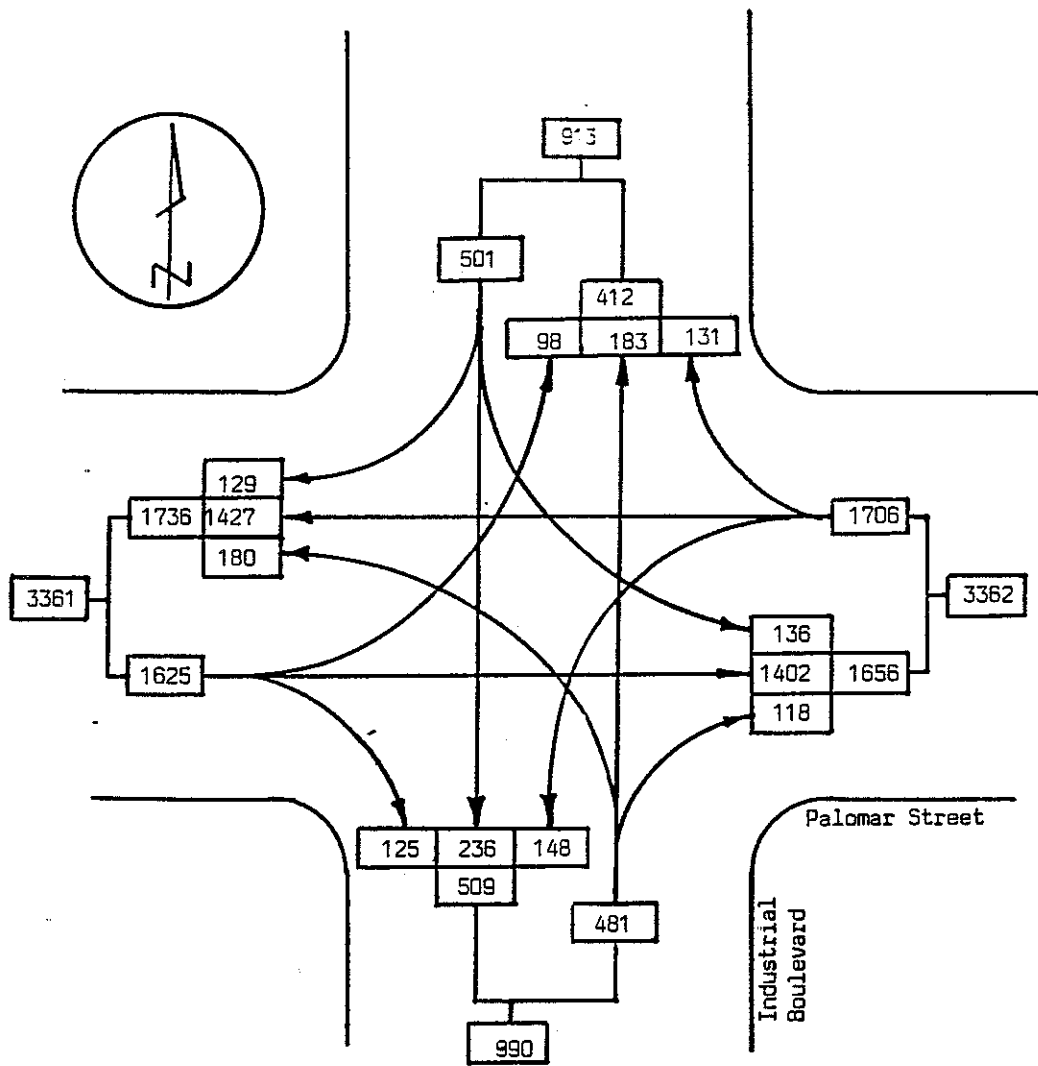
Existing + Project + Approved Projects  
(Access to Palomar Street only)

Palomar Street/Industrial Boulevard

Figure A - 7







ICU ANALYSIS

E/B Palomar Street                    1 left, 1 through, 1 through + right  
 W/B Palomar Street                   1 left, 1 through, 1 through + right  
 N/B Industrial Boulevard             1 left, 1 through + right  
 S/B Industrial Boulevard             1 left, 1 through + right

$$\frac{1402 + 125}{3400} + \frac{148}{1500} + \frac{236 + 129}{1700} + \frac{180}{1500}$$

$$.45 + .10(\text{Min}) + .21 + .12 = .88 \text{---LOS D}$$

Improve N/B and S/B Industrial Boulevard to 1 left, 1 through, 1 right and add exclusive right turn lanes on E/B and W/B Palomar Street.

$$\frac{1402}{3400} + \frac{148}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.41 + .10(\text{min}) + .14 + .12 = .77 \text{---LOS C}$$

PM Peak Hour

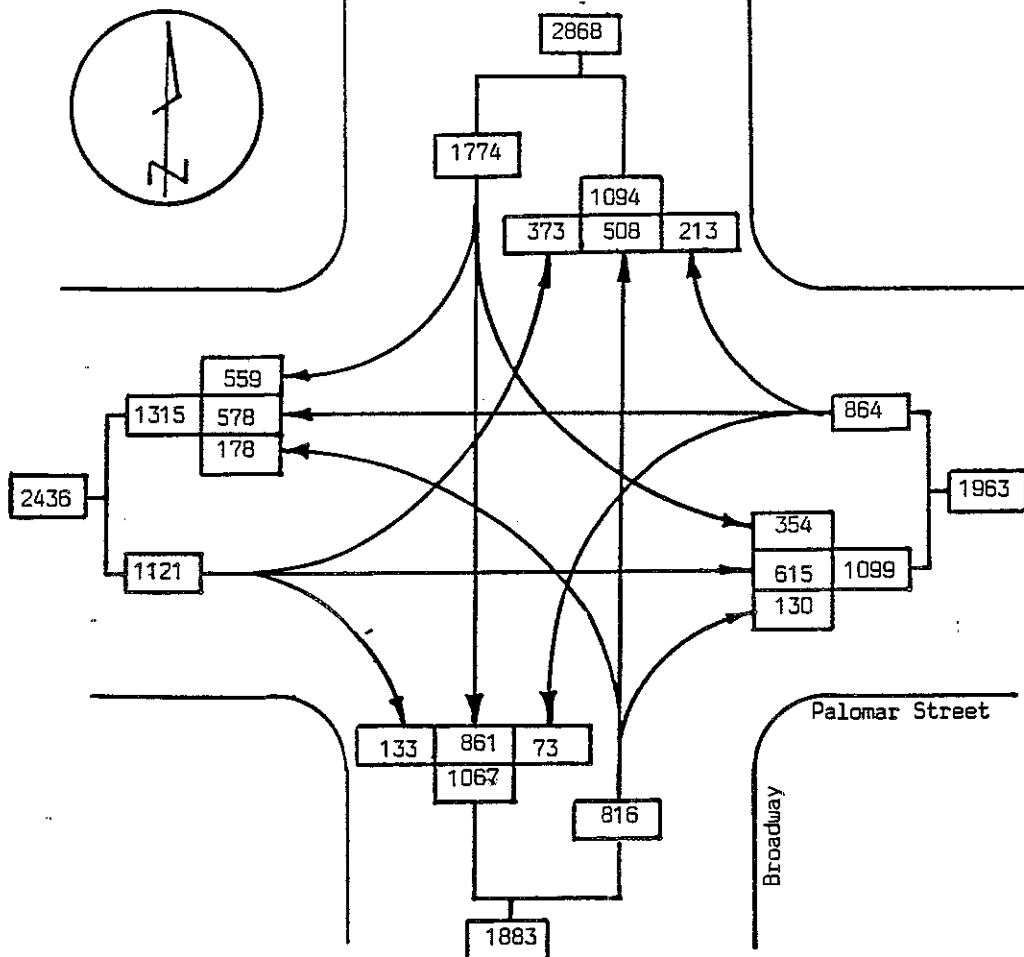
Existing + Project + Approved projects  
 (With access to north and south)

Palomar Street/Industrial Boulevard

Figure A - 8



**WILLDAN ASSOCIATES**



ICU ANALYSIS

E/B Palomar Street	1 left, 2 through, 1 right
W/B Palomar Street	1 left, 1 through, 1 through + right
N/B Broadway	1 left, 2 through, 1 right
S/B Broadway	1 left, 2 through, 1 right

$$\frac{578 + 213}{3400} + \frac{373}{1500} + \frac{861}{3400} + \frac{178}{1500}$$

$$.23 + .25 + .25 + .12 = .85 \text{---LOS D}$$

Improve E/B Palomar Street to accommodate dual left turns

$$\frac{578 + 213}{3400} + \frac{373}{3000} + \frac{861}{3400} + \frac{178}{1500}$$

$$.23 + .12 + .25 = .60 = .72 \text{---LOS C}$$

Existing + Project + Approved Projects  
(Access to Palomar Street only)

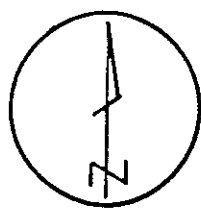
PM Peak Hour

Figure A - 9

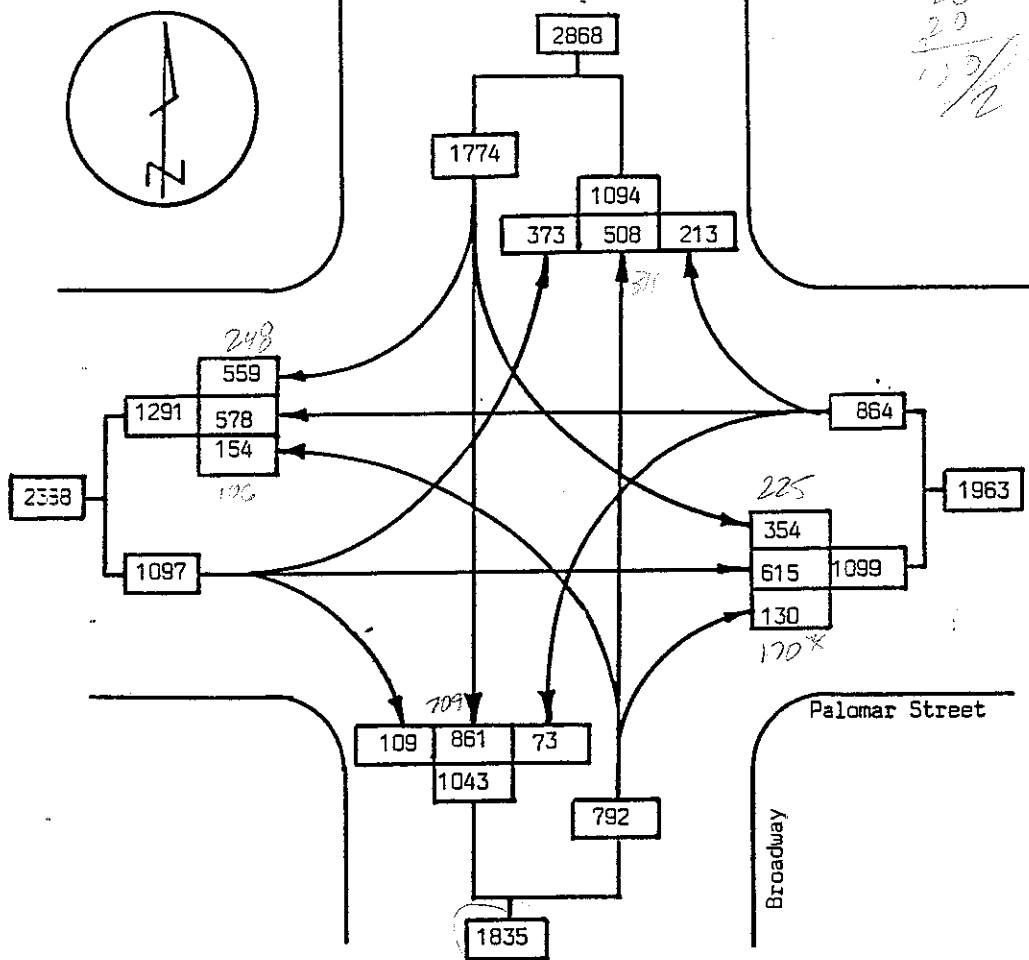
Palomar Street/Broadway



WILLDAN ASSOCIATES



19  
23  
20  
130/2 = 65  
2



ICU ANALYSIS

- E/B Palomar Street 1 left, 2 through, 1 right
- W/B Palomar Street 1 left, 1 through, 1 through + right
- N/B Broadway 1 left, 2 through, 1 right
- S/B Broadway 1 left, 2 through, 1 right

\*1990

ofy Brnd  
65<sup>2</sup>

$$\frac{578 + 213}{3400} + \frac{373}{1500} + \frac{861}{3400} + \frac{154}{1500}$$

$$.23 + .25 + .25 + .10 = .83 \text{ ----LOS D}$$

Improve E/B Palomar Street to accommodate dual left turns

$$\frac{578 + 213}{3400} + \frac{373}{3000} + \frac{861}{3400} + \frac{154}{1500}$$

$$.23 + .12 + .25 + .10 = .70 \text{ ----LOS B}$$

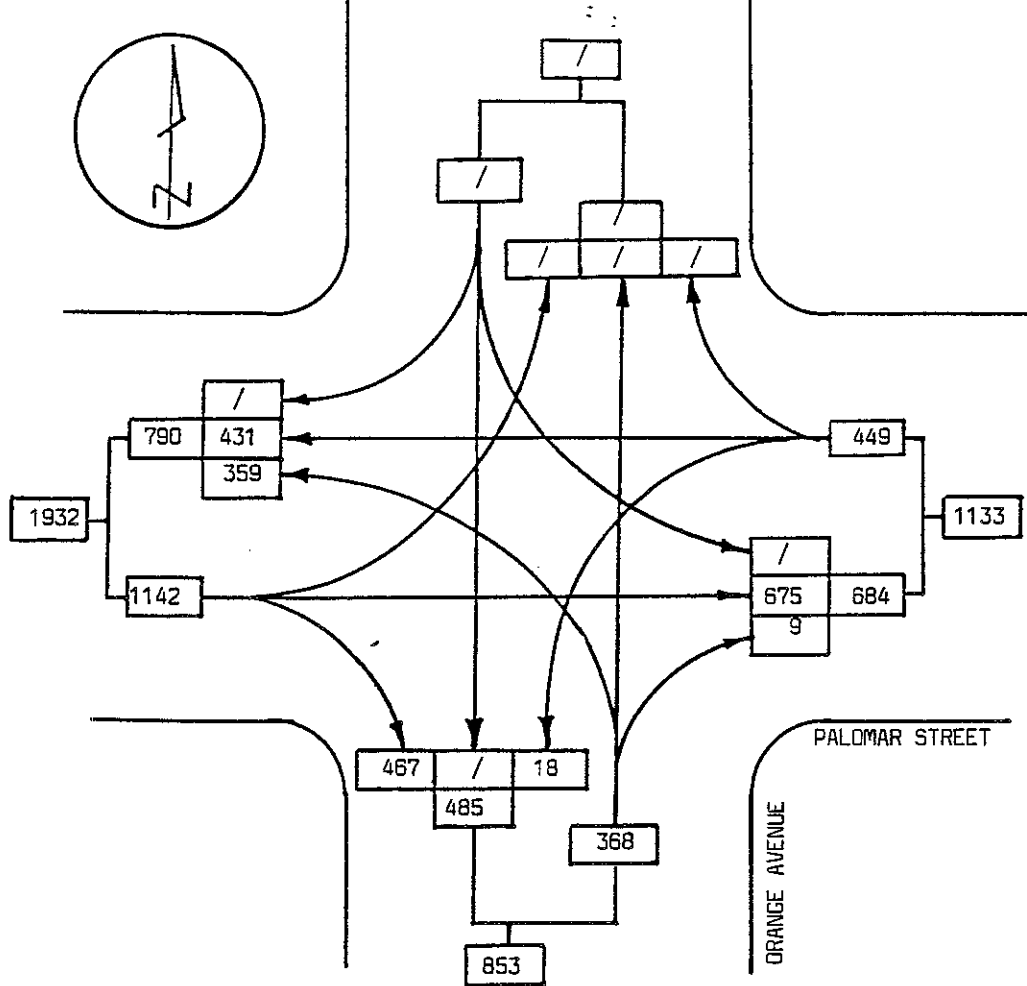
Existing + Project + Approved Projects  
(With access to north + south)

PM Peak Hour

Figure A - 10

Palomar Street/Broadway





ICU ANALYSIS

E/B Palomar Street  
 W/B Palomar Street  
 N/B Orange Avenue

2 through, 1 right  
 1 left, 2 through  
 2 left, 1 right

$$\frac{675}{3400} + \frac{18}{1500} + \frac{359}{3000}$$

$$.20 + .10(\text{min}) + .12 = .42\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

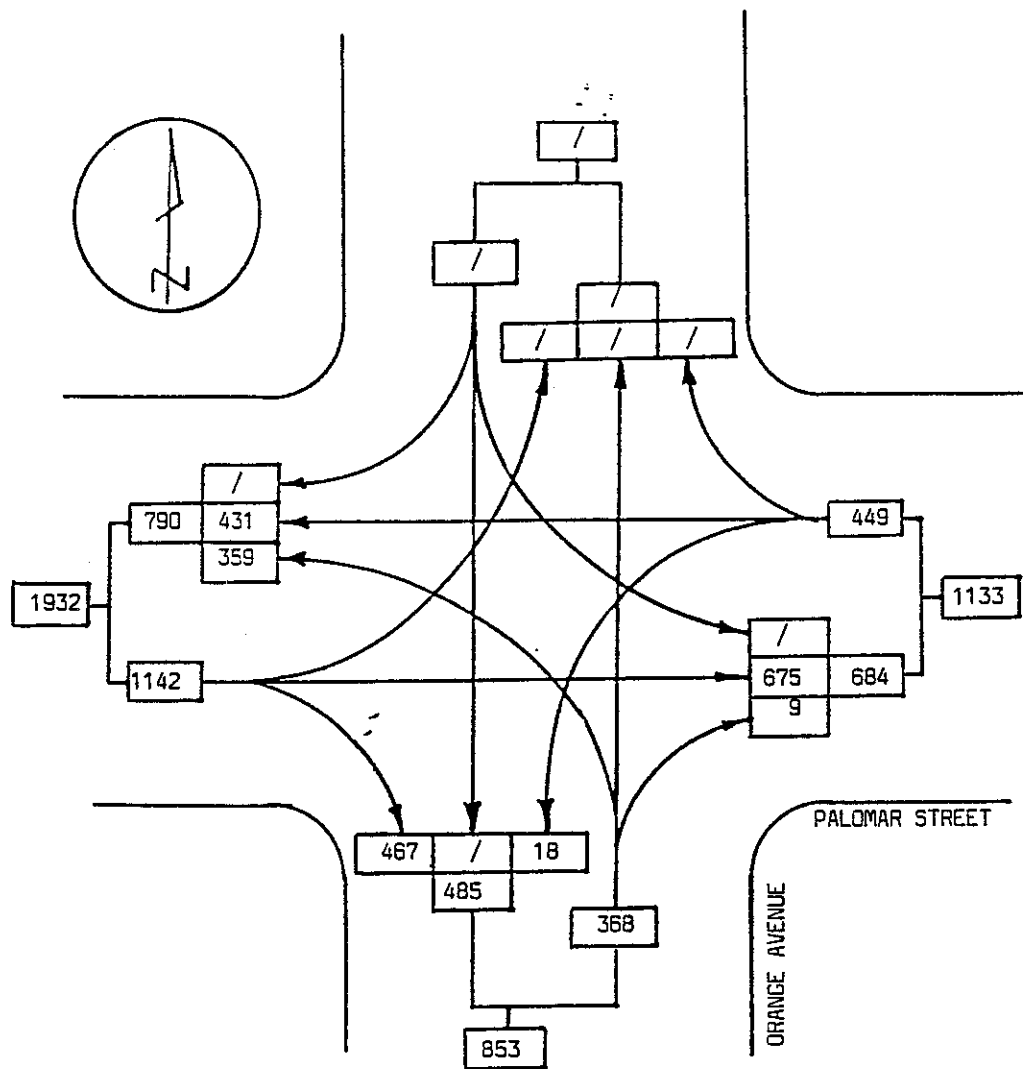
PM PEAK HOUR

FIGURE A - 11

PALOMAR STREET/ORANGE AVENUE  
 (ACCESS TO PALOMAR STREET ONLY)



WILLDAN ASSOCIATES



ICU ANALYSIS

E/B Palomar Street  
 W/B Palomar Street  
 N/B Orange Avenue

2 through, 1 right  
 1 left, 2 through  
 2 left, 1 right

$$\frac{675}{3400} + \frac{18}{1500} + \frac{359}{3000}$$

$$.20 + .10(\text{min}) + .12 = .42\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

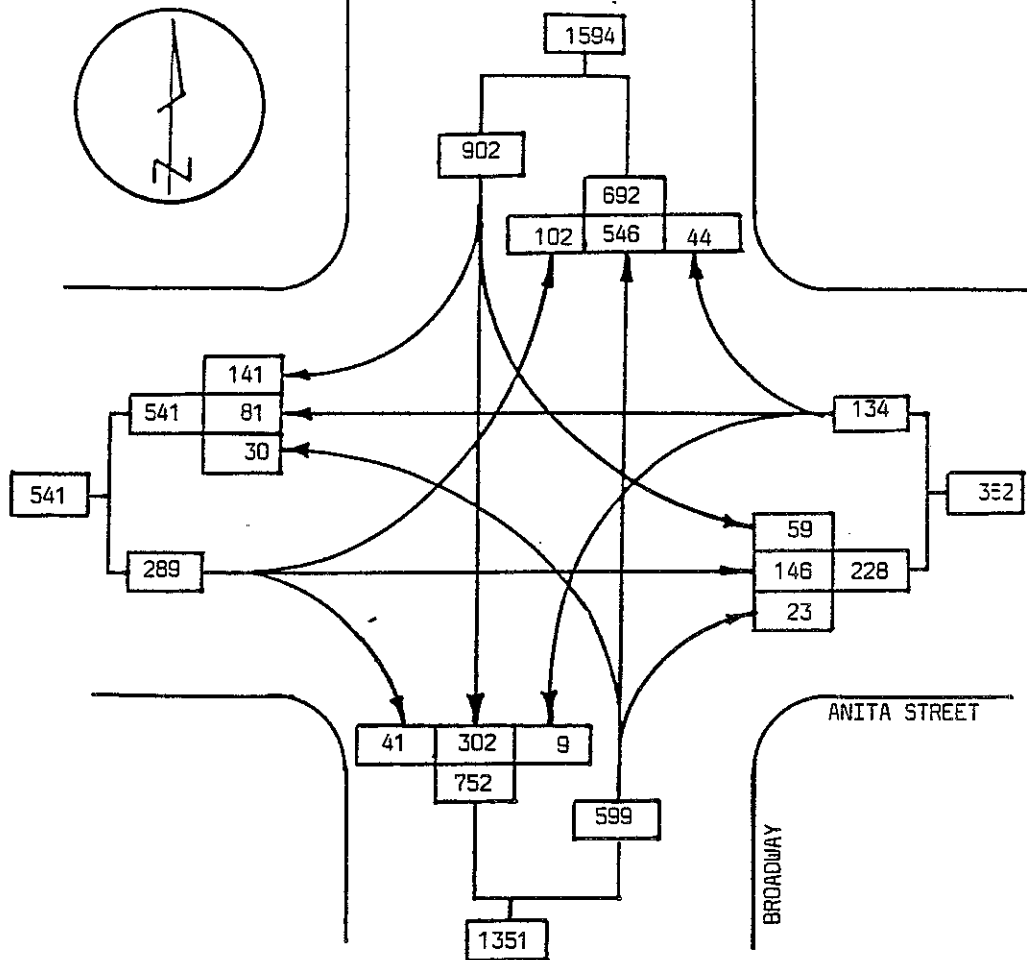
PM PEAK HOUR

FIGURE A - 12

PALOMAR STREET/ORANGE AVENUE  
 (WITH ACCESS ASSUMED NORTH AND SOUTH)



WILLDAN ASSOCIATES



ICU ANALYSIS

N/B Broadway	1 left, 1 through, 1 through + right
S/B Broadway	1 left, 2 through, 1 free right
E/B Anita Street	1 left, 1 through + right
W/B Anita Street	1 left, 1 through + right

$$\frac{702}{3400} + \frac{30}{1500} + \frac{146 + 41}{1700} + \frac{9}{1500}$$

$$.21 + .10(\text{min}) + .11 + .10(\text{min}) = .52\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

PM PEAK HOUR

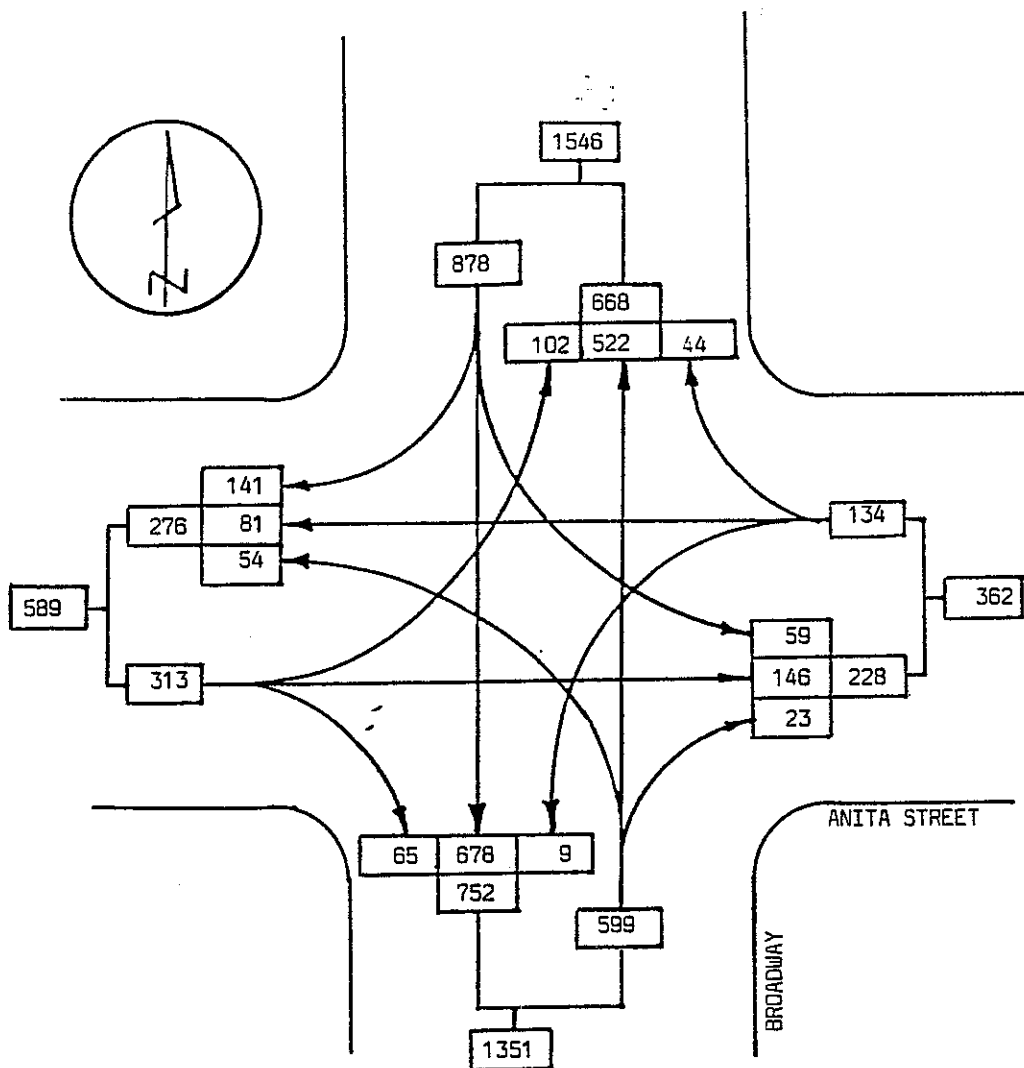
FIGURE A - 13

BROADWAY/ANITA STREET

(ACCESS TO PALOMAR STREET ONLY)



WILLDAN ASSOCIATES



ICU ANALYSIS

N/B Broadway                    1 left, 1 through, 1 through + right  
 S/B Broadway                    1 left, 2 through, 1 free right  
 E/B Anita Street                1 left, 1 through + right  
 W/B Anita Street                1 left, 1 through + right

$$\frac{678}{3400} + \frac{54}{1500} + \frac{146 + 65}{1700} + \frac{9}{1500}$$

$$.20 + .10(\text{min}) + .12 + .10(\text{min}) = .52 \text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

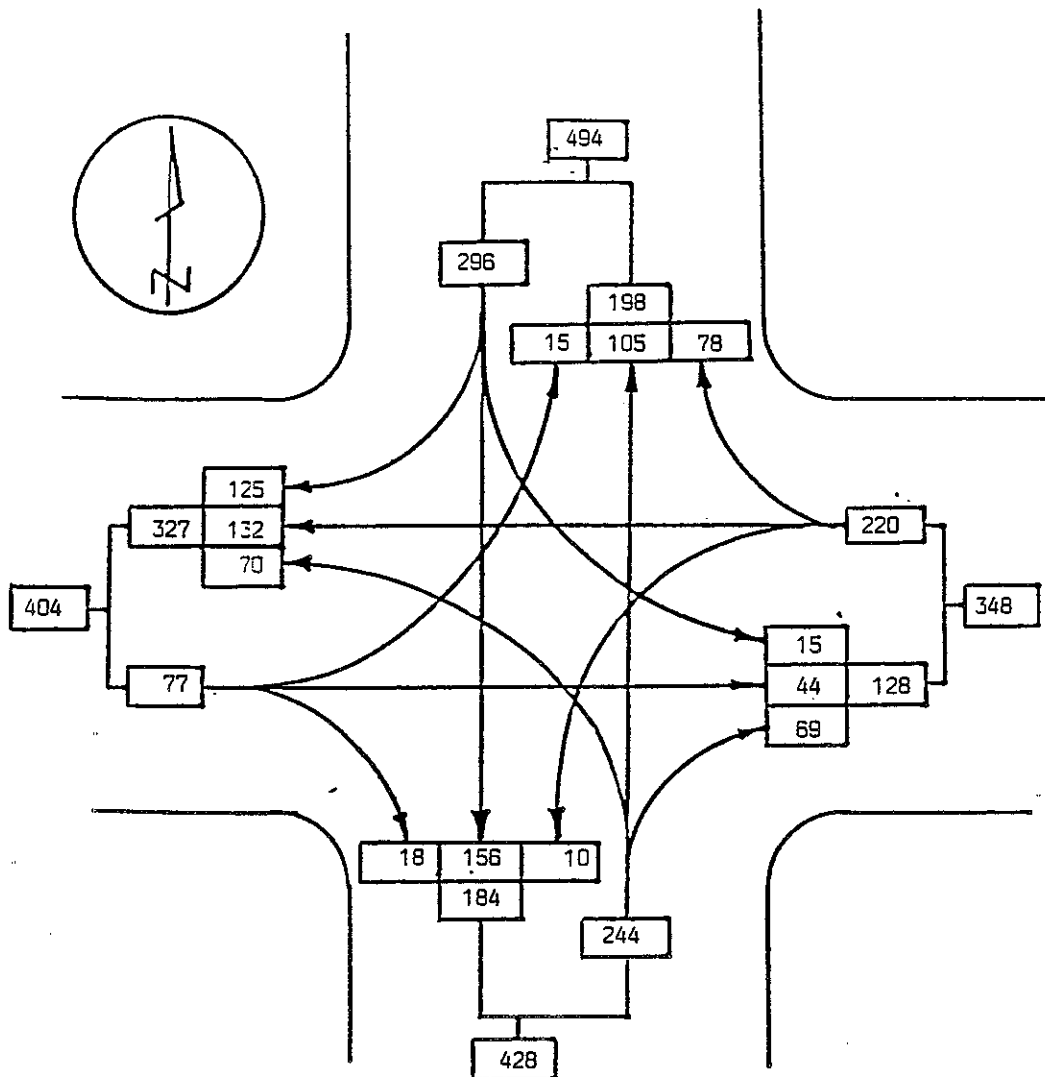
PM PEAK HOUR

FIGURE A - 14

BROADWAY/ANITA STREET  
 (ACCESS ASSUMED NORTH AND SOUTH)



WILLDAN ASSOCIATES



4-WAY STOP ANALYSIS

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

$$296 + 77 + 244 + 220 = 837 \text{---LOS 8}$$

EXISTING + PROJECT + APPROVED PROJECTS

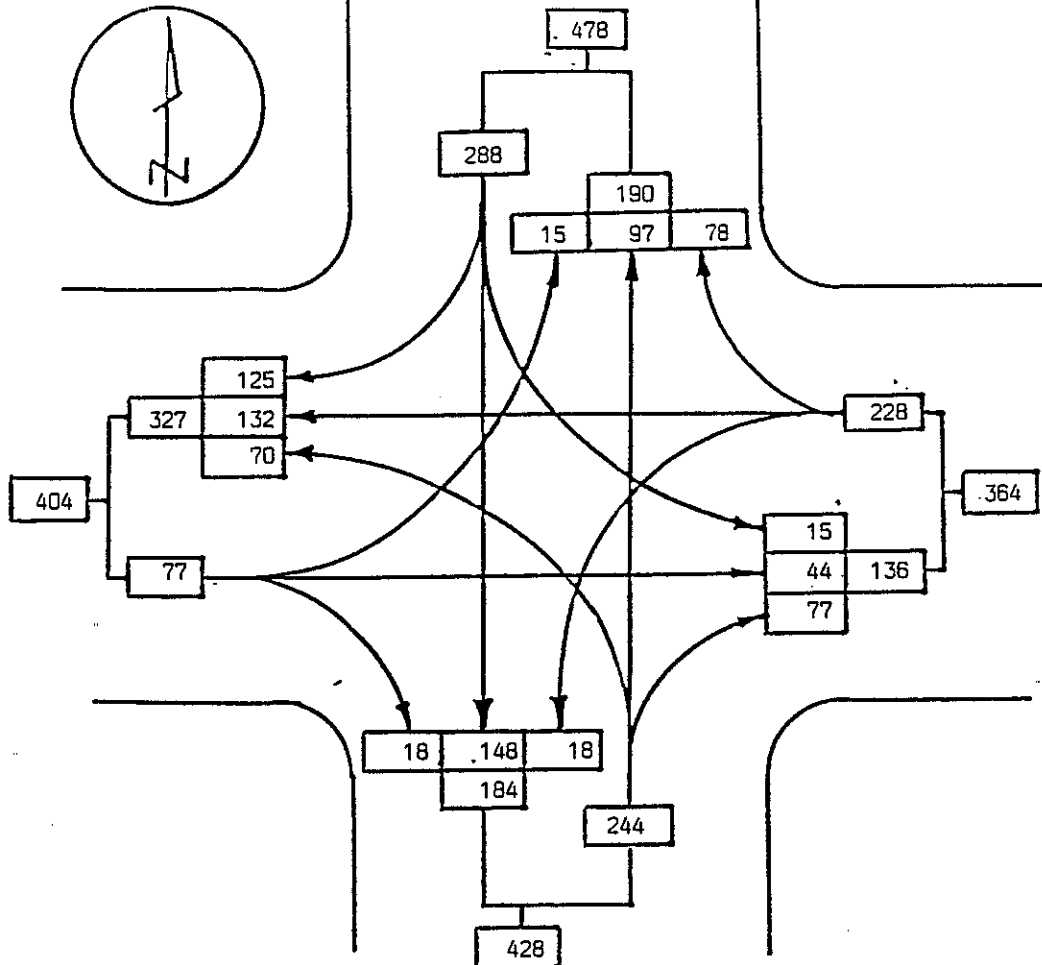
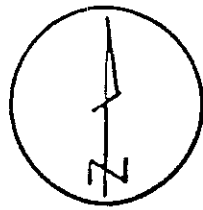
PM PEAK HOUR

FIGURE A - 15

INDUSTRIAL BOULEVARD/ANITA STREET  
(ACCESS TO PALOMAR STREET ONLY)







4-WAY STOP ANALYSIS

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

$$288 + 77 + 244 + 228 = 837 \text{----LOS B}$$

EXISTING + PROJECT + APPROVED PROJECTS

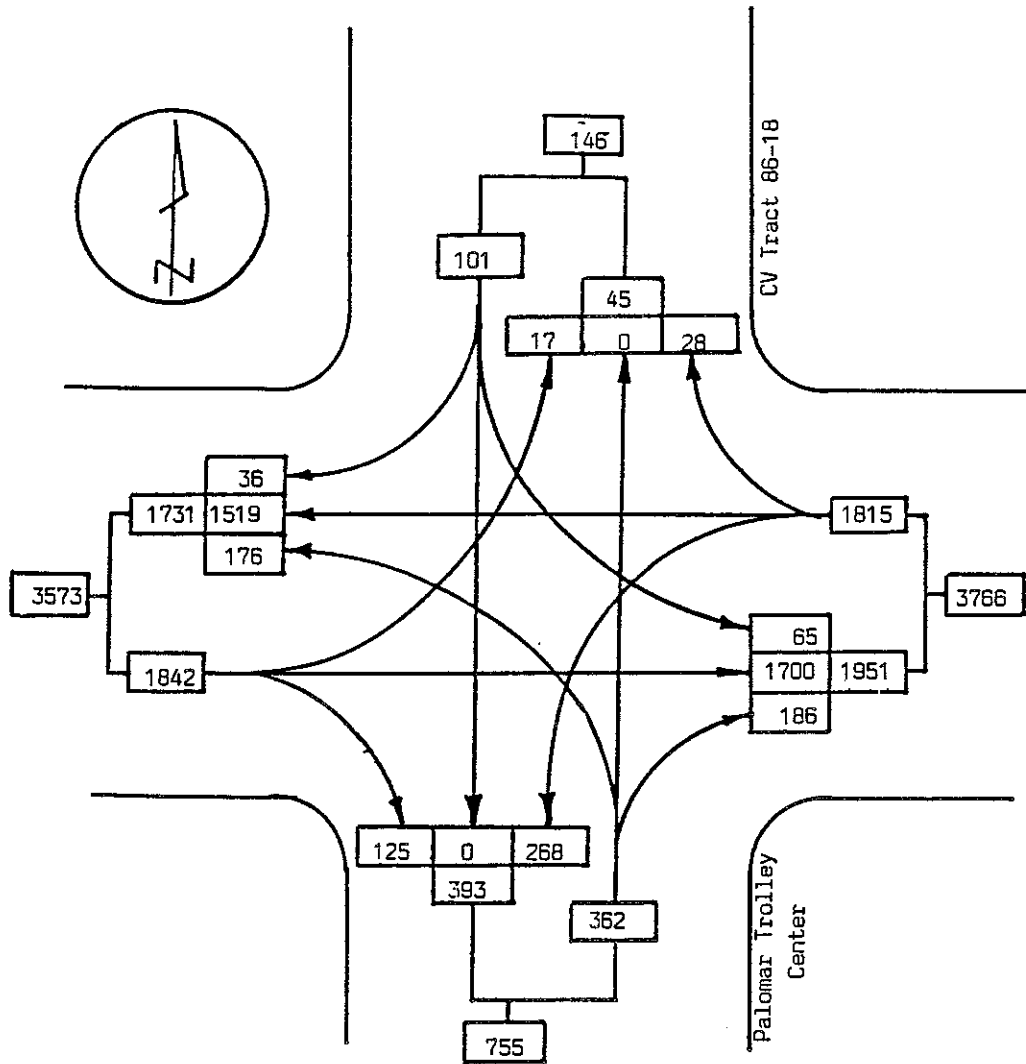
AM PEAK HOUR

INDUSTRIAL BOULEVARD/ANITA STREET  
(ACCESS ASSUMED NORTH AND SOUTH)

FIGURE A - 16



WILLDAN ASSOCIATES



Palomar Street 1 left + 2 thru  
 Shop Center Access 1 left/thru + 1 right

$$\frac{1700}{3400} + \frac{268}{1500} + \frac{176 + 36}{1500} =$$

$$.50 + .18 + .14 = .82 \text{---LOS D}$$

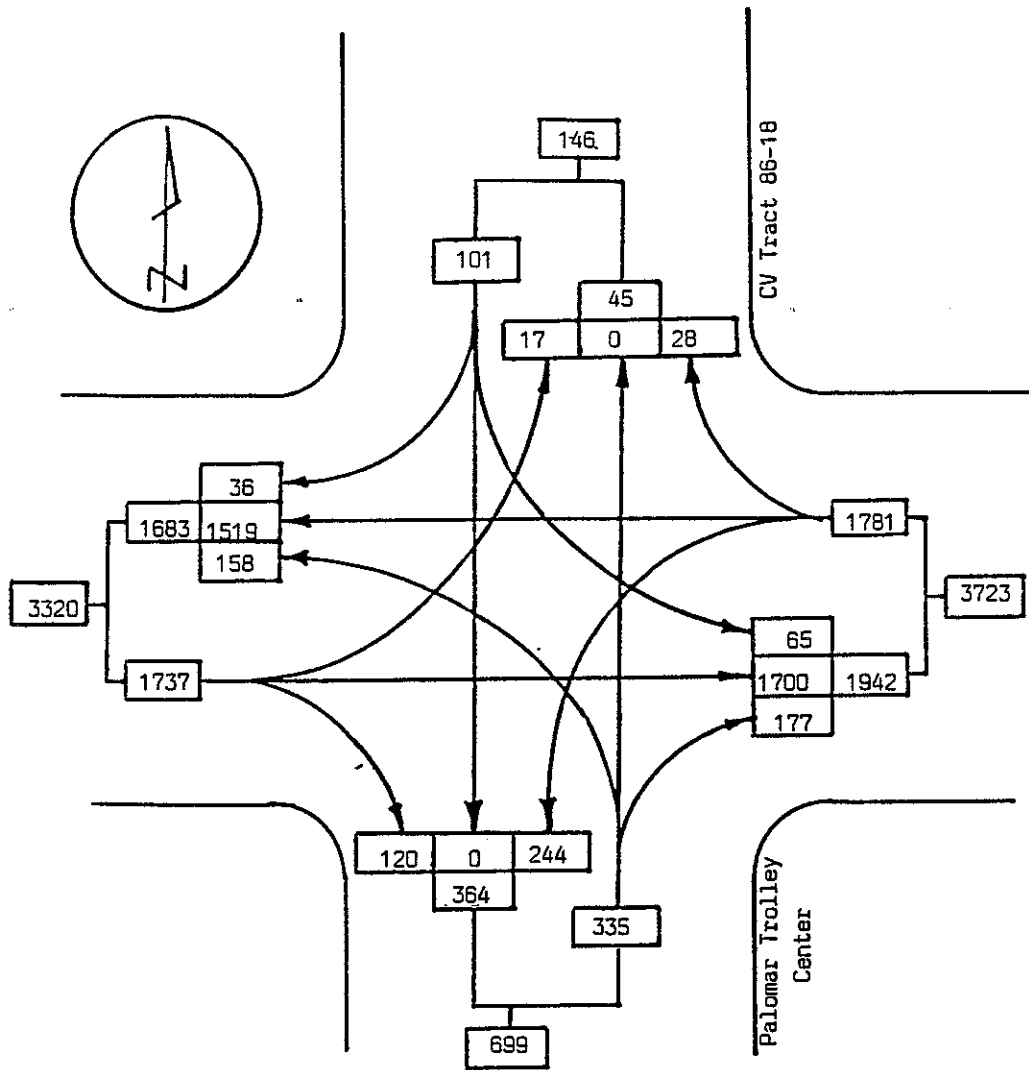
Improve W/B Palomar Street to accommodate a dual left turn lane

$$\frac{1700}{3400} + \frac{268}{3000} + \frac{176 + 36}{1500} =$$

$$.50 + .10(\text{min}) + .14 = .74 \text{----LOS C}$$

EXISTING + PROJECT + APPROVED PROJECTS  
 PALOMAR STREET/PROJECT ENTRY  
 (PALOMAR STREET ACCESS ONLY)

Figure A - 17



Palomar Street 1 left + 2 thru  
 Shop Center Access 1 left/thru + 1 right

$$\frac{1700}{3400} + \frac{244}{1500} + \frac{158 + 36}{1500} =$$

$$.50 + .16 + .13 = .79 \text{----LOS C}$$

Improve w/B Palomar Street to accommodate a dual left turn lane

$$\frac{1700}{3400} + \frac{244}{3000} + \frac{158 + 36}{1500}$$

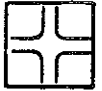
$$.50 + .10(\text{min}) + .13 = .73 \text{----LOS C}$$

EXISTING + PROJECT + APPROVED PROJECTS  
 PALOMAR STREET/PROJECT ENTRY  
 (NORTH & SOUTH ACCESS)

Figure A - 18



Unsignalized Intersection Capacity Calculation Form



Intersection \_\_\_\_\_

Location Plan:

**D**  
CV Tract 86-18

Counts:

Date \_\_\_\_\_

Day \_\_\_\_\_

Time \_\_\_\_\_

Control \_\_\_\_\_

Prevailing Speed \_\_\_\_\_

A (E/B Palomar)

(W/B Palomar) B

(Trolley Sta)  
**C**

Hourly Demand Traffic Volumes from \_\_\_\_\_ to \_\_\_\_\_, \_\_\_\_\_ m

Approach	A ←			B →			C ↓			D ↑		
Movement	A <sub>L</sub> ↙	A <sub>T</sub> →	A <sub>R</sub> ↘	B <sub>L</sub> ↙	B <sub>T</sub> ←	B <sub>R</sub> ↘	C <sub>L</sub> ↙	C <sub>T</sub> ↑	C <sub>R</sub> ↘	D <sub>L</sub> ↙	D <sub>T</sub> ↓	D <sub>R</sub> ↘
Volume	3	901	22	37	844	5	75	3	28	12	0	5
pch (see Table 1)												

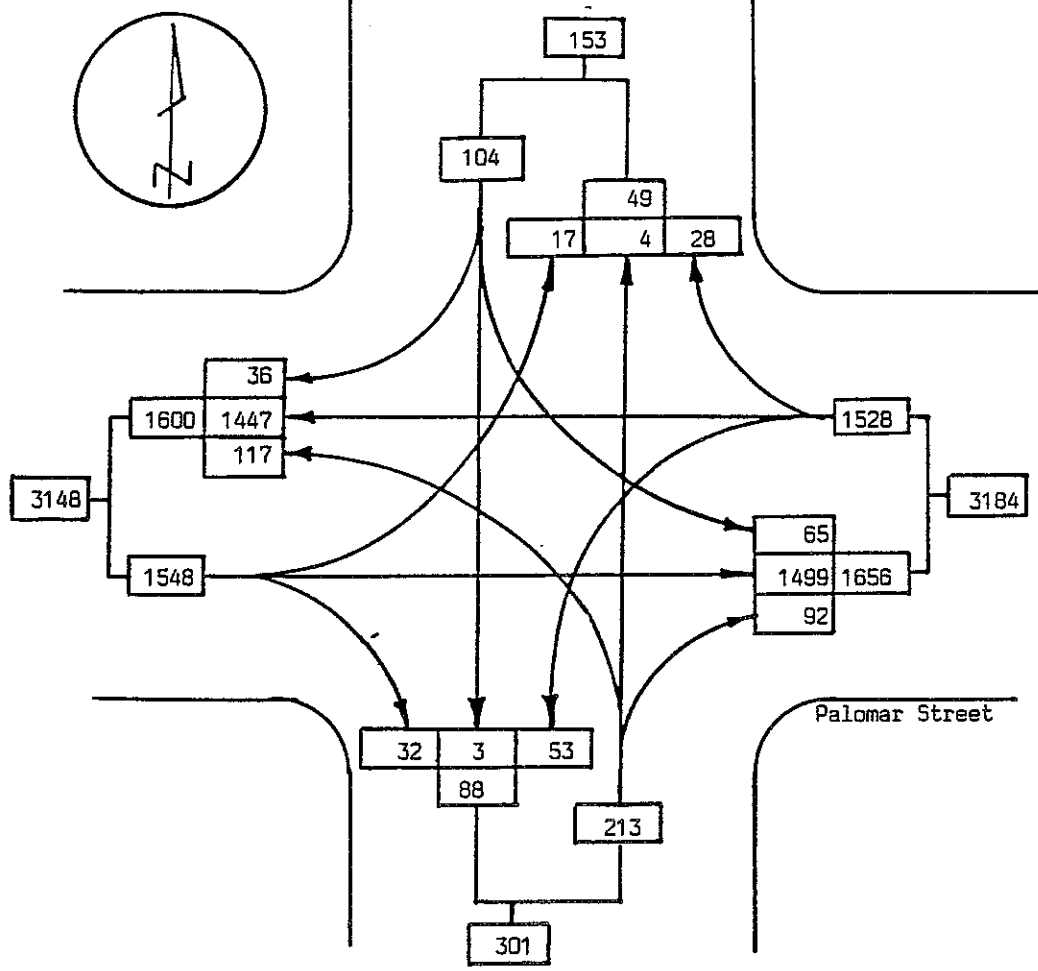
<b>Step 1</b>	<b>Right Turn from C/D</b>	<b>C<sub>R</sub> ↘</b>	<b>D<sub>R</sub> ↘</b>
Conflicting Flows = M <sub>H</sub> = (from Fig. 1)	$\frac{1}{2} A_R + A_T =$ $\frac{11}{6.0} + \frac{901}{6.0} = \frac{912}{6.0}$ vph	$\frac{1}{2} B_R + B_T =$ $\frac{2}{6.0} + \frac{844}{6.0} = \frac{846}{6.0}$ vph	
Critical Gap from Table 2 T <sub>g</sub> =	6.0 sec	6.0 sec	
Capacity from Fig. 2 =	M <sub>No</sub> = M <sub>1</sub> = $\frac{310}{28}$ pch	M <sub>No</sub> = M <sub>1</sub> = $\frac{340}{5}$ pch	
Demand =	C <sub>R</sub> = $\frac{28}{9.00}$ pch	D <sub>R</sub> = $\frac{5}{1.15}$ pch	
Capacity Used =	100 (C <sub>R</sub> /M <sub>1</sub> ) = $\frac{9.00}{.92}$ %	100 (D <sub>R</sub> /M <sub>1</sub> ) = $\frac{1.15}{99}$ %	
Impedance Factor from Fig. 3 =	P <sub>1</sub> = $\frac{.92}{.92}$	P <sub>1</sub> = $\frac{99}{99}$	
Shared Lane - See Step 3			
X No Shared Lane - Available Reserve Delay & Level of Service (Table 3)	M <sub>1</sub> - C <sub>R</sub> = $\frac{282}{C}$ pch	M <sub>1</sub> - D <sub>R</sub> = $\frac{335}{B}$ pch	
<b>Step 2</b>	<b>Left Turn from B/A</b>	<b>B<sub>L</sub> ↙</b>	<b>A<sub>L</sub> ↙</b>
Conflicting Flows = M <sub>H</sub> = (from Fig. 1)	$A_R + A_T =$ $\frac{22}{5.5} + \frac{901}{5.5} = \frac{923}{5.5}$ vph	$B_R + B_T =$ $\frac{5}{5.5} + \frac{844}{5.5} = \frac{849}{5.5}$ vph	
Critical Gap from Table 2 T <sub>g</sub> =	5.5 sec	5.5 sec	
Capacity from Fig. 2 =	M <sub>No</sub> = M <sub>2</sub> = $\frac{370}{37}$ pch	M <sub>No</sub> = M <sub>2</sub> = $\frac{390}{3}$ pch	
Demand =	B <sub>L</sub> = $\frac{37}{10.0}$ pch	A <sub>L</sub> = $\frac{3}{.08}$ pch	
Capacity Used =	100 (B <sub>L</sub> /M <sub>2</sub> ) = $\frac{10.0}{.91}$ %	100 (A <sub>L</sub> /M <sub>2</sub> ) = $\frac{.08}{.100}$ %	
Impedance Factor from Fig. 3 =	P <sub>2</sub> = $\frac{.91}{.91}$	P <sub>2</sub> = $\frac{.100}{.100}$	
Available Reserve =	M <sub>2</sub> - B <sub>L</sub> = $\frac{333}{B}$ pch	M <sub>2</sub> - A <sub>L</sub> = $\frac{387}{B}$ pch	
Delay & Level of Service (Table 3)			
<b>Step 3</b>	<b>Thru Movement from C/D</b>	<b>C<sub>T</sub> ↑</b>	<b>D<sub>T</sub> ↓</b>
Conflicting Flows = M <sub>H</sub> = (from Fig. 1) (M <sub>T</sub> & M <sub>T</sub> ' are used in Step 4)	$\frac{1}{2} A_R + A_T + A_L + B_L + B_T + B_R =$ $\frac{11}{7.5} + \frac{901}{7.5} + \frac{3}{7.5} + \frac{37}{7.5} + \frac{844}{7.5} + \frac{5}{7.5}$ M <sub>H</sub> = M <sub>T</sub> = $\frac{1801}{7.5}$ vph	$\frac{1}{2} B_R + B_T + B_L + A_L + A_T + A_R =$ $\frac{2}{7.5} + \frac{844}{7.5} + \frac{37}{7.5} + \frac{3}{7.5} + \frac{901}{7.5} + \frac{22}{7.5}$ M <sub>H</sub> = M <sub>T</sub> ' = $\frac{1809}{7.5}$ vph	
Critical Gap from Table 2 T <sub>g</sub> =	7.5 sec	7.5 sec	
Capacity from Fig. 2 =	M <sub>No</sub> = $\frac{40}{36}$ pch	M <sub>No</sub> = $\frac{40}{36}$ pch	
Adjust for Impedance	M <sub>No</sub> × P <sub>2</sub> × P <sub>1</sub> ' = M <sub>3</sub> = $\frac{36}{3}$ pch	M <sub>No</sub> × P <sub>2</sub> × P <sub>2</sub> ' = M <sub>3</sub> ' = $\frac{36}{0}$ pch	
Demand =	C <sub>T</sub> = $\frac{3}{8.33}$ pch	D <sub>T</sub> = $\frac{0}{0}$ pch	
Capacity Used =	100 (C <sub>T</sub> /M <sub>3</sub> ) = $\frac{8.33}{.94}$ %	100 (D <sub>T</sub> /M <sub>3</sub> ) = $\frac{0}{100}$ %	
Impedance Factor from Fig. 3	P <sub>3</sub> = $\frac{.94}{.94}$	P <sub>3</sub> = $\frac{100}{100}$	

Unsignalized Intersection Capacity Calculation Form (continued)



Step 3 (Continued)	$C_T \uparrow$	$D_T \downarrow$
_____ No Shared Lane Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$M_3 - C_T =$ _____ pch <input type="checkbox"/>	$M'_3 - D_T =$ _____ pch <input type="checkbox"/>
<u>Y</u> Shared Lane with Left Turn See Step 4		
_____ Shared Lane Demand = _____ Shared Lane with Right Turn Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_R + C_T = C_{RT} =$ _____ pch $M_{13} = \frac{(C_R + C_T)}{(C_R/M_1) + (C_T/M_3)}$ $M_{13} =$ _____ pch $M_{13} - C_{RT} =$ _____ pch <input type="checkbox"/>	$D_R + D_T = D_{RT} =$ _____ pch $M'_{13} = \frac{(D_R + D_T)}{(D_R/M'_1) + (D_T/M'_3)}$ $M'_{13} =$ _____ pch $M'_{13} - D_{RT} =$ _____ pch <input type="checkbox"/>
<b>Step 4</b> Left Turn from C/D	$C_L \curvearrowright$	$D_L \curvearrowleft$
_____ Conflicting Flows = $M_N =$ _____ ( $M_T$ & $M'_T$ were calculated in Step 3) Critical Gap from Table 2 $T_p =$ _____ Capacity from Fig. 2 = _____ Adjust for Impedance	$M_T + D_T + D_R =$ _____ $\frac{1801 + 0 + 5}{8 \text{ sec}} = 1806$ vph $M_{No} = 40$ pch $M_{No} \times P_2 \times P'_2 \times P'_1 \times P'_3 = M_4$ $M_4 = 37$ pch	$M'_T + C_T + C_R =$ _____ $\frac{1809 + 3 + 28}{8 \text{ sec}} = 1840$ vph $M'_{No} = 40$ pch $M'_{No} \times P_2 \times P_2 \times P_1 \times P_3 = M'_4$ $M'_4 = 33$ pch
_____ No Shared Lane Demand = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_L =$ _____ pch $M_4 - C_L =$ _____ pch <input type="checkbox"/>	$D_L =$ _____ pch $M'_4 - D_L =$ _____ pch <input type="checkbox"/>
<u>X</u> Shared Lane Demand = _____ Shared Lane with Thru Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_T + C_L = C_{TL} = 78$ pch $M_{34} = \frac{(C_T + C_L)}{(C_T/M_3) + (C_L/M_4)}$ $M_{34} = 37$ pch $M_{34} - C_{TL} = 0$ pch <input type="checkbox"/>	$D_T + D_L = D_{TL} = 12$ pch $M'_{34} = \frac{D_T + D_L}{(D_T/M'_3) + (D_L/M'_4)}$ $M'_{34} = 47$ pch $M'_{34} - D_{TL} = 35$ pch <input type="checkbox"/>
_____ Shared Lane Demand = _____ Shared Lane with Thru & Right Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_R + C_T + C_L = C_{RTL} =$ _____ pch $M_{134} = \frac{C_R + C_T + C_L}{(C_R/M_1) + (C_T/M_3) + (C_L/M_4)}$ $M_{134} =$ _____ pch $M_{134} - C_{RTL} =$ _____ pch <input type="checkbox"/>	$D_R + D_T + D_L = D_{RTL} =$ _____ pch $M'_{134} = \frac{D_R + D_T + D_L}{(D_R/M'_1) + (D_T/M'_3) + (D_L/M'_4)}$ $M'_{134} =$ _____ pch $M'_{134} - D_{RTL} =$ _____ pch <input type="checkbox"/>

Overall Evaluation Overall LOS is C but there will be long delays for left turns from the Trolley Station



ICU ANALYSIS

- |                     |                                      |
|---------------------|--------------------------------------|
| E/B Palomar Street  | 1 left, 2 through, 1 right           |
| W/B Palomar Street  | 1 left, 1 through, 1 through + right |
| N/B Trolley Station | 1 left + through, 1 right            |
| S/B CV 86-18        | 1 left + through, 1 right            |

$$\frac{1499}{3400} + \frac{53}{1500} + \frac{117 + 4}{1500} + \frac{65 + 3}{1500} =$$

$$.44 + .10(\text{min}) + .10(\text{min}) + .10(\text{min}) = .74 \text{----LOS C}$$

EXISTING + CURRENT ZONING + APPROVED PROJECTS

PALOMAR STREET/TROLLEY STATION

PM PEAK HOUR  
(4:45 - 5:45)  
5/5/88

FIGURE A - 20



# jhk & associates

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January 5, 1989

Mr. Phillip Hinshaw  
A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, California 92120

Re: JHK & Associates Review of the Palomar Trolley Center  
Traffic Analysis by Willdan Associates (Project 7535)

Dear Mr. Hinshaw:

JHK & Associates is pleased to submit this Letter Report documenting our review of the Traffic Analysis for the Palomar Trolley Center that was conducted by Willdan Associates (October 14, 1988) for Pacific Scene, Inc. The traffic analysis by Willdan Associates identified existing conditions, generated, distributed, and assigned project trips onto the street system, and evaluated the impact of this additional traffic. Potential adverse traffic related impacts were identified and mitigation measures recommended.

The methodology and analysis procedures used in the Palomar Trolley Center Report were reviewed and the results verified for accuracy. The expected impacts on the circulation system and the recommended mitigation measures were also reviewed to ensure that all relevant transportation issues were addressed in sufficient detail. The analysis procedures and results were found to be accurate and the mitigation measures sufficiently addressed the adverse impacts of the proposed project. Additional recommendations made by JHK after reviewing this report are based primarily on roadway classification standards contained in the newly developed Circulation Element for the City of Chula Vista.

We hope that the information presented in this report adequately addresses the needs of the Environmental Impact Report. JHK & Associates would be pleased to do any additional work that your firm or the City of Chula Vista feels is necessary to supplement this report. If you have any questions or comments regarding this report, please

## PROJECT SETTING

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley Station. The project site is currently vacant with surrounding land use consisting of commercial and light industrial businesses. The project proposes four points of access from Palomar Street with the main access driveway centrally located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes to relocate the existing traffic signal at the entrance to the Palomar Trolley Station to this central driveway.

To further define the current status of the circulation system in the vicinity of the proposed Palomar Trolley Center project, JHK investigated the classification of study area streets which are included in the City of Chula Vista Circulation Element. Also, JHK reviewed the relationship of existing volumes to recommended capacity levels on these facilities as detailed in the Willdan Associates report. It is important to note that the review conducted by JHK incorporated the most recent actions by the City of Chula Vista Department of Public Works' engineering staff in regard to the newly developed Circulation Element plan and standards. This information was not available to the Willdan Associates project team during the formulation of the traffic analysis for Palomar Trolley Center, dated October 14, 1988. Thus, for informational purposes, this JHK document highlights the major modifications to the Circulation Element standards and details how these new standards affect the assumptions and conclusions contained in the Willdan Associates report.

The draft version of the proposed City of Chula Vista Circulation Element has been approved by staff and is included in the Draft General Plan. The entire General Plan document will



undergo public review during the first six months of 1989 and the Final General Plan should be adopted by the City Council by the end of 1989.

**Access and Circulation**

Regional access to the site will be provided by Interstate 5 via its diamond interchange with Palomar Street. Interstate 5 is an eight lane freeway providing north/south circulation through the coastal region of western San Diego County. Local access near the project site will be provided by Palomar Street, Broadway, Industrial Boulevard, Anita Street, and Orange Avenue. Palomar Street near the project site is classified as a four lane major road in the Willdan Associates report, however based on our review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista this section of Palomar Street should be classified as a Class I Collector based on its existing cross section/configuration. This discrepancy is due to the fact that the Circulation Element standards were not in effect at the time of the Willdan Associates report. It is also important to note that the new Circulation Element plan classifies the segment of Palomar Street between Interstate 5 and Broadway as a six-lane Major Street in the future. Broadway and Orange Avenue are classified as a four lane Major Streets, and Industrial Boulevard and Anita Street are classified as Class III Collector Streets according to the new Circulation Element standards and the Willdan Associates report.

**Existing Roadway Capacity Review**

All roadway segments in the project vicinity operate at Level of Service (LOS) C or better under existing conditions according to the Willdan Associates report. However, the roadway capacity standards used for the Willdan Associates report differ from the new standards developed for the City of Chula Vista Circulation

Element. The standards used in the Willdan Associates report were approved by City of Chula Vista staff, thus, it appears that this discrepancy is due primarily to the Willdan Associates study being conducted in the interim period before the new Circulation Element standards were officially in effect.

Based on the JHK & Associates review of existing segment volumes utilizing standards in the new Circulation Element, Palomar Street, between Interstate 5 and Broadway, is operating below LOS C. The approximate Average Daily Traffic (ADT) volume for LOS C operating conditions on the newly developed Circulation Element are shown in the following table.

**ROADWAY CAPACITY STANDARDS**

<u>Facility Type</u>	<u># of Lanes</u>	<u>Approx. LOS C ADT</u>
Expressway	6	70,000
Six-Lane Prime Arterial	6	50,000
Six-Lane Major Street	6	40,000
Four-Lane Major Street	4	30,000
Class I Collector	4	22,000
Class II Collector	2	12,000
Class III Collector	2	7,500

Based on a review of the existing segment volumes in the study area JHK & Associates prepared an additional table which indicates the classification of study area streets and details the relationship of existing volumes to the roadway capacities listed in the previous Circulation Element Roadway Capacity table.

**EXISTING STUDY AREA SEGMENT VOLUMES**

<u>Study Area Streets</u>	<u>Facility Type</u>	<u>Existing Volume</u>	<u>Relationship to Capacity</u>
Palomar Street	Class I	28,200	Over
Anita Street	Class III	4,200	Under
Main Street	Class I	20,100	Under
Industrial Boulevard	Class III	7,100	Under
Broadway	Four-Lane Major Street	25,800	Under

Major intersections in the study area analyzed for this project include Palomar Street/Industrial Boulevard, Palomar Street/Project Entry, Palomar Street/Trolley Station Entry, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. All of these are signalized intersections except the Industrial Boulevard/Anita Street intersection, which is under four-way stop control. The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F, while all other intersection operate at LOS C or better.

The proposed project site is well served by public transit. The San Diego Trolley provides service between downtown San Diego and the International border during both peak and off-peak commute periods. San Diego Transit Local Route 32 provides service along Broadway with connection to the H Street Trolley Station. Chula Vista Local Route 702 serves Palomar Street and provides connection to the H Street Trolley Station.

A vicinity map, site plan, existing ADT volumes for all roadway segments in the study area, existing turning movement volumes for all major intersections in the study area, and other

pertinent information on existing conditions is contained in the Willdan Associates report.

#### REVIEW OF TECHNICAL ANALYSIS AND IMPACTS

In addition to the proposed Palomar Trolley Center, two recently approved projects specified by the City of Chula Vista were also included in the analysis. These two projects are the Palomar Street Home Club and the Chula Vista Home Club. A traffic study was conducted for the Palomar Street Home Club by J. Federhart & Associates (4/30/87) and a traffic study was conducted for the Chula Vista Home Club by Linscott, Law, and Greenspan (10/20/88). These projects included space for commercial shops, retail shops, light industrial use, and fast food restaurants. It is important to note that the Willdan Associates analysis report also included development of the Palomar Trolley Center project site assuming the current light industrial zoning.

In order to evaluate the impacts of the proposed project and the cumulative development impacts of the approved projects, the number of trips expected to be generated by the proposed and approved projects was determined. These trips were then distributed and assigned to the existing roadway network and capacity analyses conducted for critical segments and intersections to determine the impacts of the additional traffic.

#### Trip Generation

The trip generation rates used in the analysis were developed by various agencies, including the Institute of Transportation Engineers, and summarized in the San Diego Association of Governments (SANDAG) Traffic Generators Manual. These trip generation rates and calculations were verified by JHK in the review of the Willdan Associates report. The proposed project is expected to generated 6,248 vehicles per day with 626 vehicles in

the PM peak hour. The approved projects are projected to generate 13,200 vehicles per day with 1,275 vehicles in the PM peak hour. The project site under current light industrial zoning conditions is expected to generate 1,100 vehicles per day with 132 vehicles in the PM peak hour under current light industrial zoning.

### Trip Distribution And Assignment

The trip distribution assumptions, detailed in the Willdan Associates report, for the proposed Palomar Trolley Center project were derived from the Chula Vista Home Club Traffic Study (J. Federhart & Associates, 12-19-87 and 4-30-87). This distribution was based on a select zone assignment for the project zone performed by SANDAG. The trip distribution and assignment for each of the approved projects was also done according to their respective Traffic Studies. The trip distribution process using the assumed trip distribution obtained from SANDAG was also verified by JHK & Associates.

The distribution percentages shown in Figure 4, of the Willdan Associates report calls for a split of 40% of the trips to and from the west and 60% of the trips to and from the east. This distribution of project generated trips impacts the Levels of Service for roadway segments and intersections within the study area. A full discussion of the impact of this distribution of project generated traffic is contained in the following capacity analysis sections.

### Capacity Analysis - Roadway Segments

Capacity analyses were conducted for critical roadway segments and intersections in the study area to determine the impacts of the additional traffic generated by the proposed and approved projects. The analyses were conducted for the PM peak hour since it is considered to be the critical time period due to the commercial

land use in the study area. Capacity analyses were also conducted assuming that access was provided south of the project site to Anita Street via Jayken Way. The results of the analyses with and without this Jayken Way connection were similar.

Palomar Street would operate at LOS E according to the Willdan Associates report (as shown on Table 4, p.15) and at LOS F according to the standards in the new Circulation Element under existing plus project plus approved project conditions. These Levels of Service would occur as a result of the trip distribution pattern described in the previous section. Broadway north of Palomar would operate at LOS E under existing plus project plus approved project conditions according to both the Willdan Associates report and the Circulation Element standards. All other roadway segments would continue to operate at LOS C or better according to the Willdan Associates report. According to the standards in the new Circulation Element, Industrial Boulevard will operate at LOS B north of Palomar Street and at LOS D south of Palomar Street. A determination will need to be made by the City of Chula Vista as to which standards are valid for this project so that developer fees associated with deterioration of Levels of Service on roadways in the project vicinity can be determined.

#### **Capacity Analysis - Study Area Intersections**

The capacity at signalized intersections was evaluated using the Intersection Capacity Utilization (ICU) analysis method. The capacity of the unsignalized intersection at Industrial Boulevard/Anita Street was determined using procedures outlined in the 1985 Highway Capacity Manual. The intersection of Palomar Street/Industrial Boulevard will operate at LOS F and the intersection of Palomar Street/Broadway will operate at LOS D under existing, plus project, plus approved project conditions. All other intersections will operate at LOS C or better. These Levels

of Service would occur if existing geometrics are retained and no mitigation measures are implemented.

The project proposes to relocate the existing traffic signal from the Trolley Station entry to the proposed project main entry access driveway. It is stated in the Willdan Associates report that LOS C will still be maintained at the Trolley Station entry under unsignalized operations. This report also states that LOS C operations will be provided at the proposed project main entry with the traffic signal relocated to this intersection. JHK & Associates recommends that a detailed traffic signal removal analysis be conducted prior to the traffic signal relocation. This removal analysis should fully investigate the following issues.

- Can the required traffic signal removal warrants be met.
- What type of access will be allowed at this Trolley Station intersection with Palomar Street under unsignalized operations.
- Will the new access condition and geometric configuration provide adequate service to the existing Trolley Station Parking Area.
- Will other alternate means of access to the Trolley Station be provided via an access easement through the proposed Palomar Trolley Center development site.

Also included in the Willdan Associates report is an analysis of future intersection Levels of Service in the project vicinity. Table 5 (p.17) summarizes the forecasted LOS for each intersection under future volume conditions with various mitigation measures implemented. Based on the Willdan Associates analysis, the most critical study area intersections are Palomar Street at Industrial Boulevard and Palomar Street at Broadway. If the recommended mitigation measures are implemented, LOS C conditions will result at these intersections while all other intersections operate at LOS B or higher during the critical PM peak hour.

Based on the classification of this segment of Palomar Street in the new Circulation Element (Six-Lane Major Street from Interstate 5 to Broadway) and the daily traffic volumes resulting from the development of this site coupled with volumes from other approved projects (See Figure 7, Willdan Associates report), it is apparent that additional roadway capacity will be required in the near-term. The existing volume level on this section of Palomar Street will rise from approximately 28,200 vehicles per day (vpd) to between 34,700 and 36,900 vpd, based on the traffic generated by the Palomar Trolley Center project and other approved projects in the vicinity. The current LOS C operating capacity of Palomar Street is 22,000 vpd and the capacity of the new six-lane major facility which is planned for this segment is 40,000 vpd. Thus, when the new six-lane roadway cross section is constructed, acceptable Levels of Service will be achieved. Also, the construction of this new cross section may restrict access to the Trolley Station site to right turns in and out only. This restriction will be dictated by the design of a continuous raised median between Industrial Boulevard and the main signalized entrance driveway to the proposed Trolley Center site. Additionally, the traffic signal relocation described previously will provide optimal signal spacing resulting in improved traffic flow along this section of Palomar Street.

Site access, internal circulation, and parking were also reviewed. In addition to the central driveway, three other access points will be provided that are restricted to right-turns in and right-turns out, in conjunction with a raised median on Palomar Street. Internal circulation will be provided by an inner loop road around the shopping center connected by a series of parking aisles. The internal circulation should be re-evaluated when specific plans are made for the proposed restaurant pads on the proposed project site. The project proposes to provide 637 parking spaces, which is consistent with City of Chula Vista zoning requirements for commercial uses.



**REVIEW OF MITIGATION MEASURES**

The following improvements were recommended in the Willdan Associates report to mitigate existing traffic problems or those associated with the traffic generated by the proposed and approved projects and provide acceptable Levels of Service at critical project intersections and along study area streets segments:

- Improve Palomar Street to the Major Street Classification with a raised median.
- Improve the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing.
- Relocate the traffic signal at the Palomar Street/Trolley Station Entry to the main project entry four-way intersection.
- Provide an internal connection between the proposed project and the Palomar Trolley Station.
- Provide dual left-turn lanes on the westbound approach of the Palomar Street/Main Project Entry intersection.
- Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection. This will result in LOS B under the Willdan Associates report trip distribution assumption (see Appendix A, Figure A-10).
- Conduct detailed site analyses for the individual restaurants at the time of conditional use permit application.

JHK & Associates supports all of the above mentioned mitigation measures. The following comments are made in regard to these mitigation measures:

1. It is recommended that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the proposed project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK & Associates further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by the provision of a continuous

raised median extending along Palomar Street between Interstate 5 and Broadway.

Also, the new signalized intersection at the main entrance driveway to the Trolley Center site should be aligned with the existing access driveway located along the north curb line of Palomar Street in this vicinity. The relocation of the traffic signal to the project entry should provide improved signal spacing and the availability of adequate gaps in the traffic stream. A detailed analysis will provide more insight to these unknown factors.

2. It should be noted that when the proposed project improves Palomar Street to Major Street standards, as indicated in the Willdan Associates report, it will still operate at LOS E according to the Roadway Classification Standards contained in the new Circulation Element. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a Six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus, it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between Interstate 5 and Broadway to address near term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area.
3. No roadway improvements are planned for Broadway, which is projected to operate at LOS E north of Palomar Street. As noted in the Willdan Associates report, it is not feasible to improve Broadway to a Six-lane Major Street, thus it will remain a Four-lane Major Street even as the General Plan improvements are implemented. The recommended improvements to the intersection of Palomar Street/Broadway may help alleviate some of the congestion on this roadway. If the City of Chula Vista determines that LOS E is unsatisfactory on Broadway, with no improvements scheduled for this street, alternative solutions to improve capacity should be investigated. These solutions may include improved geometrics at the intersection of Palomar Street and Broadway to provide additional exclusive turn lanes on all approaches to this intersection.
4. It is strongly recommended that the proposed project provide an internal connection from its parking lot to the existing Trolley Station parking lot. This will provide vehicles leaving the Trolley Station an alternate exit at the signalized intersection at the proposed main project entry and reduce delay at the unsignalized Trolley Station exit if the Trolley Station traffic signal is relocated.
5. As discussed in the Willdan Associates report detailed site analysis for the individual development pads located adjacent

to the south curb line of Palomar Street should be conducted. JHK & Associates further recommends that the total number of access driveways for this site be reviewed by the City of Chula Vista. This review should concentrate on the specific requirements for individual access driveways and the spacing between access driveways on this Trolley Center site as well as the spacing between Trolley Center driveways and driveways serving other developments along the south curb line of Palomar Street.

6. JHK & Associates recommends that a raised median be incorporated into the design of the main entrance driveway serving the Trolley Center site. This on-site raised median should be continuous for a distance of approximately 150 feet south of the signalized intersection at Palomar Street.
7. JHK & Associates recommends that alternate access to this site be provided via Jayken Way to the south. This alternate point of access will provide internal circulation opportunities for vehicles destined to the Trolley Center from Anita Street and the industrial and commercial developments south of the proposed project.

#### CONCLUSION

A review of the Willdan Associates report has found the analysis procedures and results to be accurate. JHK & Associates supports the mitigation measures recommended in the Willdan Associates report in addition to the supplemental comments outlined above. The issues discussed above should be addressed by the City of Chula Vista to ensure that all relevant transportation issues and appropriate mitigation measures have been identified for inclusion in the Environmental Impact Report.



**APPENDIX D**  
**Economic Impact Analysis**

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ECONOMIC IMPACT ANALYSIS FOR  
PALOMAR TROLLEY CENTER

Prepared for:

City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Prepared by:

CIC Research, Inc.  
1215 Cushman Avenue  
San Diego, CA 92110

January 1989



## EXECUTIVE SUMMARY

This report summarizes the findings of a socioeconomic analysis of potential market impacts from development and operation of Palomar Trolley Center in Chula Vista, California. The primary purpose of this study is to identify any potential for physical deterioration of existing retail facilities resulting from socioeconomic causes related to the subject development. Of primary concern are retail centers located on Broadway in the vicinity of the study site on Palomar Street. However, all potentially impacted centers and strip retail within the Montgomery Specific Plan area have been included in the scope of this analysis.

The major findings of the study include, but are not limited to, the following:

- The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. It comprises 12.23 acres with 127,365 square feet planned for development, resulting in a coverage ratio of 24 percent. The center is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five freestanding pads, four of which would be restaurants (fast food), and one a financial institution.
- CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway clearly represents the largest retail corridor with a total of 830,378 square feet, of which 661,896 are classified as retail centers ranging in size from 6,000



to 290,000 square feet. Third Avenue represents the second largest retail with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of retail space in centers and 11,600 square feet of freestanding or small strip space.

- Within the primary market area (1.5 mile radius) the population is projected to grow at .1 percent per year from 30,258 in 1988 to 30,413 in 1993. The 3.0-mile market area is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. Also, housing unit projections from 1988 to 1993 for the 1.5-mile area represent the slowest growth (.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile area.
- Household incomes within the site's trading area are relatively low. Average household income within 1.5 miles of the site is \$20,686; within 3.0 miles of the site it is \$28,186. These income levels compare to an estimate of \$34,753 for San Diego County.
- A total of 4,311 employees were estimated to work within the market area. These 4,311 employees currently support a major portion of 83,910 square feet of retail space within the market area. Demand by workers in the area will require approximately 1,250 square feet of additional retail space annually in the vicinity of the study site.
- Two potential tenant profiles for the subject development were evaluated in terms of their potential impacts. However, because the actual tenant mix may vary significantly from either alternative, the emphasis of the evaluation was on the potential impact of the total amount of space planned and its expected capture of retail expenditures.
- The supermarket/drug store concept or the off-price community center approach would represent eight percent of occupied retail space in the study area upon completion in 1990. If all known planned retail space was built by that time (163,983 square feet), the subject site would represent seven percent of area retail space.
- In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market segment. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17

percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets. The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

- In terms of the site's capture of retail sales dollars, the first scenario (supermarket/drug store anchors) would represent 15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area. By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.
- Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. Development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers. Centers that could be affected by both planned development and the subject project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located on a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.
- If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies

can not be ascribed to the eventual marketing of the subject center, since it is not significantly large to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to even their construction. The mistakes or choices made by these other developers will not be directly affected by the subject project, or be impacted from cumulative effects of the project.



## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY . . . . .	ii
TABLE OF CONTENTS . . . . .	vi
LIST OF TABLES . . . . .	viii
LIST OF FIGURES . . . . .	ix
INTRODUCTION . . . . .	1
PURPOSE OF THE STUDY . . . . .	1
CLIENT . . . . .	1
METHODOLOGY AND ASSUMPTIONS . . . . .	2
REPORT ORGANIZATION . . . . .	3
SITE DESCRIPTION . . . . .	5
LOCATION AND DIMENSIONS . . . . .	5
DEVELOPMENT PLAN . . . . .	5
LAND USE CHARACTERISTICS . . . . .	7
MARKET AREA DESCRIPTION . . . . .	9
PROPOSED DEVELOPMENT . . . . .	9
COMPETITIVE ENVIRONMENT . . . . .	10
TRAFFIC PATTERNS AND VOLUMES . . . . .	13
DEMOGRAPHIC PROFILE . . . . .	18
RETAIL EXPENDITURE POTENTIAL . . . . .	21
EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL . . . . .	24

TABLE OF CONTENTS  
(continued)

	<u>Page</u>
IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESSES/FACILITIES . . . . .	28
STUDY SITE TENANT PLAN . . . . .	28
DESCRIPTION OF EXISTING RETAIL BASE . . . . .	29
STUDY SITE SALES ESTIMATION . . . . .	39
RETAIL MARKET IMPACT . . . . .	43
GROWTH AND RETAIL DEMAND . . . . .	49
MITIGATION OF POTENTIAL IMPACTS . . . . .	54
ANALYSIS OF SIGNIFICANCE . . . . .	56
BENEFITS FROM PROJECT . . . . .	56
CONSIDERATIONS REGARDING COMPETITION . . . . .	59
APPENDIX . . . . .	60



LIST OF TABLES

<u>Tables</u>		<u>Page</u>
1	AVERAGE DAILY TRAFFIC VOLUMES . . . . .	16
2	MARKET AREA POPULATION AND HOUSING ESTIMATES . . . . .	19
3	MARKET AREA HOUSEHOLD INCOME ESTIMATION . . . . .	20
4	RETAIL EXPENDITURE POTENTIAL 1988 . . . . .	22
5	RETAIL EXPENDITURE POTENTIAL 1990 . . . . .	23
6	MARKET AREA EMPLOYMENT BASE . . . . .	25
7	MARKET AREA INDUSTRIAL EMPLOYMENT BASE AND RETAIL SUPPORT PROJECTIONS . . . . .	27
8	EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS . . . . .	31
9	PLANNED RETAIL DEVELOPMENTS . . . . .	38
10	ESTIMATED SQUARE FOOTAGE OF RETAIL BY TYPE OF BUSINESS . . . . .	40
11	SUBJECT PROJECT POTENTIAL SALES - SUPERMARKET/DRUG STORE CENTER . . . . .	41
12	SUBJECT PROJECT POTENTIAL SALES OFF-PRICE SHOPPING CENTER . . . . .	42
13	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA, SCENARIO 1 . . . . .	44
14	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA, SCENARIO 2 . . . . .	46
15	MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE . . . . .	47
16	STUDY SITE POTENTIAL SALES TAX REVENUES . . . . .	58



LIST OF FIGURES

<u>Figures</u>		<u>Page</u>
1	SITE LOCATION WITHIN CHULA VISTA . . . . .	6
2	SITE PLAN . . . . .	8
3	MONTGOMERY SPECIFIC PLAN . . . . .	11
4	EXISTING RETAIL CENTERS AND BLOCK LISTINGS . . . . .	12
5	TRAFFIC DISTRIBUTION FOR PROPOSED PROJECT . . . . .	14
6	PLANNED RETAIL CENTERS . . . . .	37



## INTRODUCTION

This report presents the findings of a socioeconomic analysis of the possible market impacts from planned development of Palomar Trolley Center. The study was prepared for inclusion in draft and final Environmental Impact Reports and candidate CEQA findings for Case No. EIR 89-4M, for the City of Chula Vista.

### PURPOSE OF THE STUDY

The primary purpose of this study is to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the subject property. Of primary concern are retail centers located along Broadway; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis.

### CLIENT

This study was performed by CIC Research, Inc., as subconsultant to A.D. Hinshaw Associates (ADHA), for the City of Chula Vista. The analysis and interpretation of study conclusions, however, represent the independent findings of CIC Research, Inc.



Therefore, any or all study conclusions may not necessarily be shared by the client.

#### METHODOLOGY AND ASSUMPTIONS

Data collection tasks in this study included both primary and secondary approaches. The primary data gathering involved over 60 hours employed in a detailed survey of retail businesses and centers in the Montgomery Specific Plan area. This work allowed firsthand observation of business activity levels, traffic and pedestrian circulation patterns. However, the main benefit of this survey was the identification of all retail businesses in the Montgomery Specific Plan area and on-site estimates of gross square footage. This approach was preferred to utilizing the City's computerized data base which provides acreages by Standard Industrial Classification code classifications (SIC). Retail and other observed businesses were then grouped into the categories employed by the State Board of Equalization, which are nearly equivalent to groupings in which consumer demand estimates were generated by National Decision Systems (NDS). The resulting data base, providing both supply and demand estimations, was then analyzed in relation to the changes expected from the subject development.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory (October 1987), Traffic Analysis for Palomar Trolley Center (Willdan Associations, October 1988), and

Sandag Series VII demographic forecasts. Interviews and meetings with City planning and traffic engineering staff allowed CIC to adjust or supplement the published data.

Principal among the assumptions employed in the analysis was that within six months of opening, the subject development would effectively be fully occupied. This assumption was made for three reasons: First, the primary hypothesis, and purpose of the study, is that the size of the subject center will cause it to be a major element in the area's retail base. It is expected that the center will have at least one anchor space leased prior to obtaining construction financing and that leasing of other spaces will follow. Thus, it is reasonable to assume a high level of occupancy. Second, this study is not intended to represent a feasibility analysis for the subject development. Third, and following from the above reason, only a balanced mix of retail can be assumed to occupy the subject center's non-anchor space. No firm plans have been set determining the eventual tenant mix. Concluding that a certain type of retail should not be represented in the center due to possible over-supply would constitute a feasibility determination, and would also invalidate the original purpose of the study which is to identify impacts to other businesses and facilities resulting from development of the subject site.

#### REPORT ORGANIZATION

The report is organized into six sections. Following the introduction is a description of the site related to customer use

and access. The third section defines the market area of the center and describes the total potential retail sales available from this area. In the fourth section, competitive centers are evaluated and resulting market shares are estimated. Also, potentially impacted businesses/centers are identified and the degree of future competition or impact is estimated. The fifth chapter identifies and recommends possible measures for mitigating potential impacts. In the final chapter, the significance of expected changes in the area's retail base are given perspective by determining the benefits derived from the proposed center, and the dynamics of retail development that would affect the area even if the site were not developed.



## SITE DESCRIPTION

### LOCATION AND DIMENSIONS

The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. Figure 1 illustrates the location of the site in the southwestern portion of the city. The site entails 12.23 acres with 127,365 square feet planned for development, resulting in a coverage ratio of 24 percent.

The location is useful for commercial retail development because of its proximity to I-5, the 1,550-foot frontage along Palomar Street, and its proximity to other major retail centers and strip retail along Broadway. Although access from I-5 is a positive element, the freeway also demarks the effective western boundary of the future market area, making it partially semicircular.

### DEVELOPMENT PLAN

The 127,365 gross square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 45,280; miscellaneous shops and a drug store would comprise 51,750 square feet. In-line

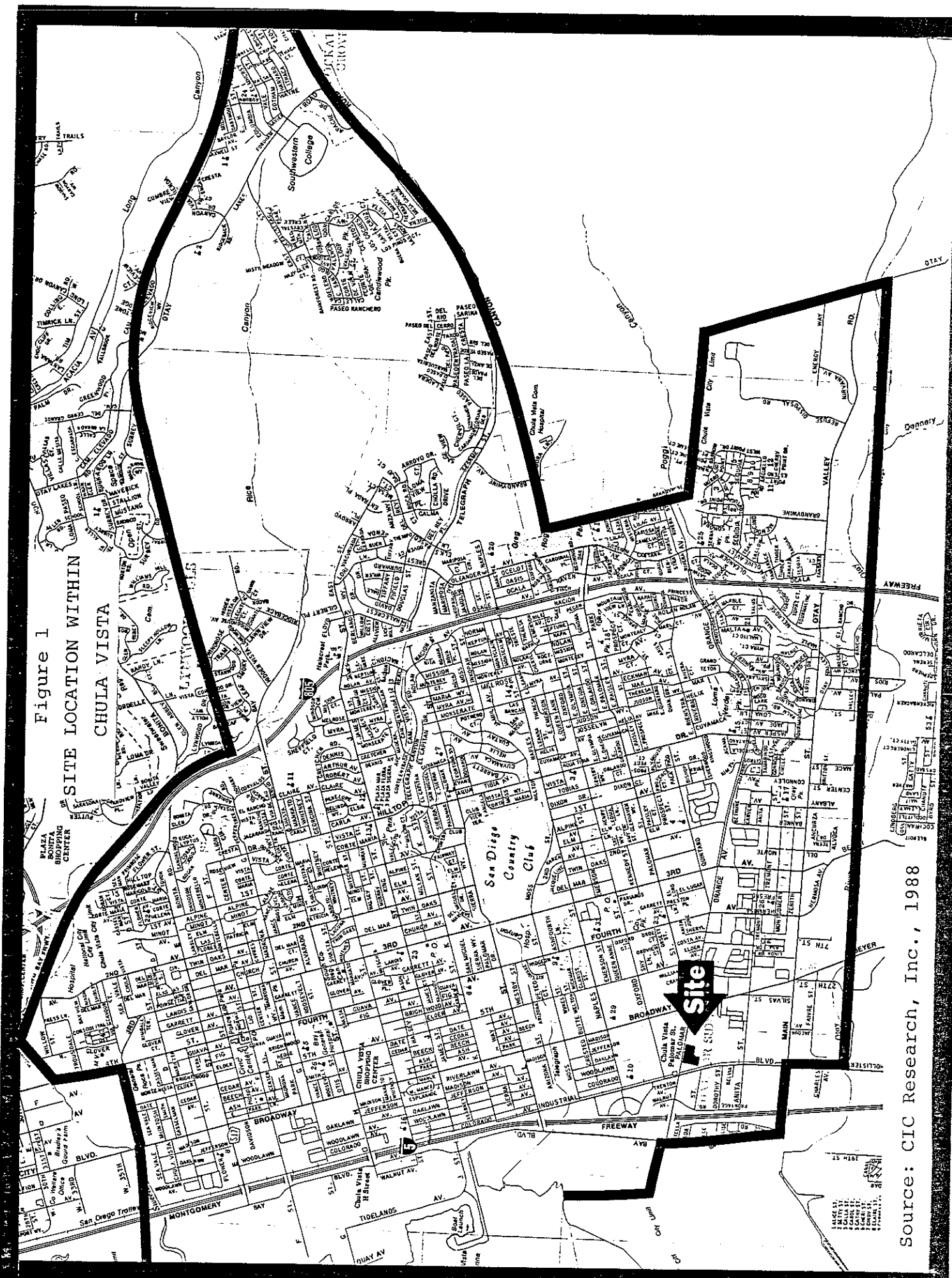


Figure 1  
SITE LOCATION WITHIN  
CHULA VISTA

Source: CIC Research, Inc., 1988



## MARKET AREA DESCRIPTION

This chapter will examine the factors that determine the boundaries of the potential market impact area. These factors include the type of proposed development, location of competing facilities and traffic volumes and patterns. Also included in this chapter is a demographic profile of the market area. The last section of this chapter details retail expenditure potential from residential and employment support.

### PROPOSED DEVELOPMENT

The proposed development plan which was mentioned in the previous chapter would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Alternatively, depending on the chosen tenants, the site could represent a community shopping center with an off-price department store as the principal anchor.

Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area generates from 15 to 20 percent of sales and could extend the trade area to a 3.0

mile radius. Based on the primary and secondary trade areas, the proposed shopping center could potentially impact competing retail developments within a similar area.

Community centers are typically developed around a department store or a large variety store ranging from 100,000 to 300,000 square feet with a site area of 10 to 30 acres. The primary trade area generally extends three to five miles. The secondary trade area can extend the trade area to seven to ten miles from the center.

Given the large amount of nearby retail facilities, the market area is expected to draw support from a customer base of approximately three miles. The following paragraphs detail the subject development's competitive environment.

#### COMPETITIVE ENVIRONMENT

Another determinant of the market impact area is the location of competitive retail space in relation to the proposed development. CIC Research conducted a windshield survey to locate, classify and measure all existing retail establishments within the Montgomery Specific Plan area (see Figure 3). The retail locations are graphically presented in Figure 4 by retail center and by blocks of freestanding and strip retail space. The following chapter will detail specifics for each center and block in terms of estimated square feet by retail classification.

Based on two possible combinations of tenant types for the subject development and the location of potentially competitive

Figure 3

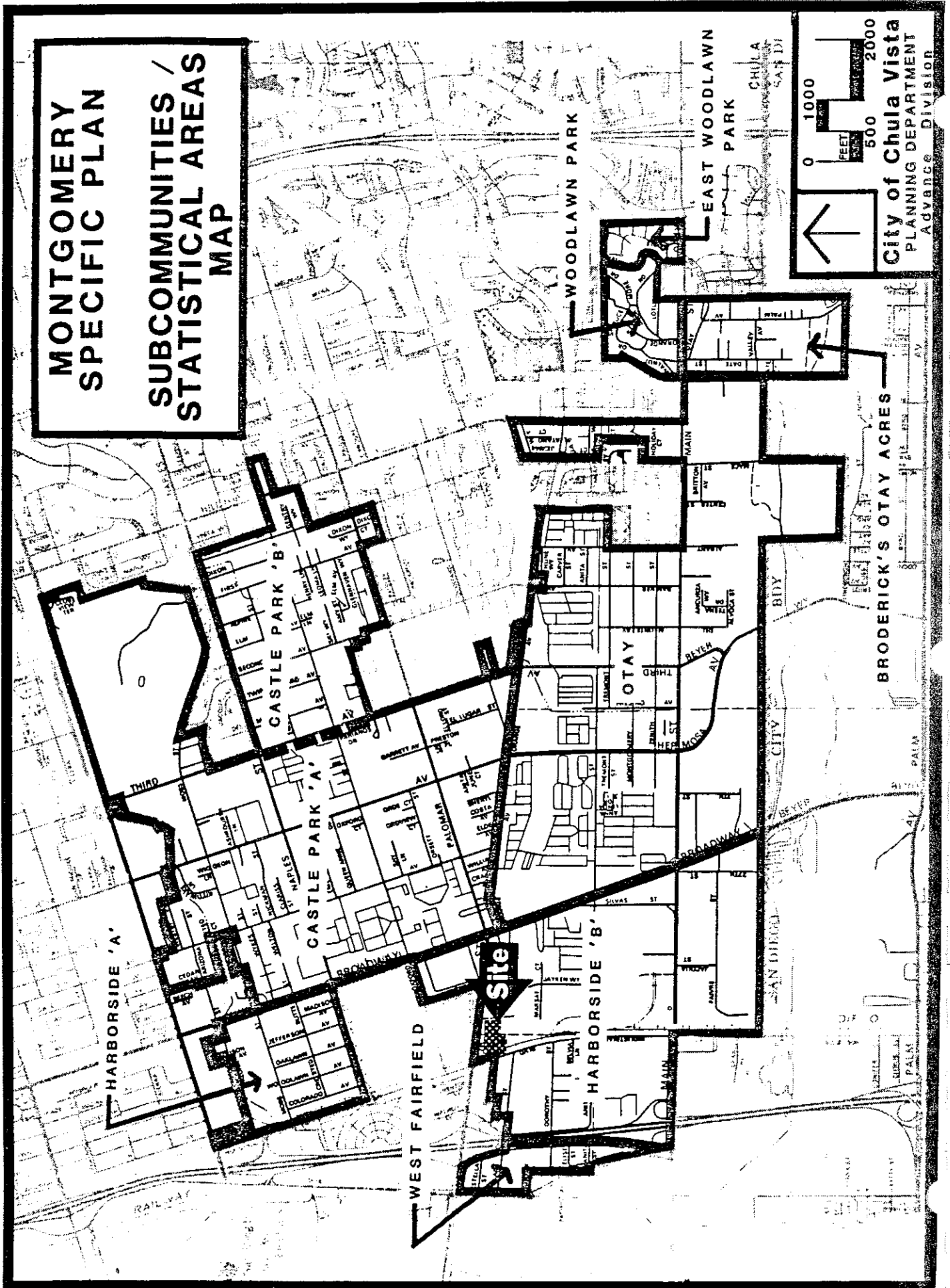
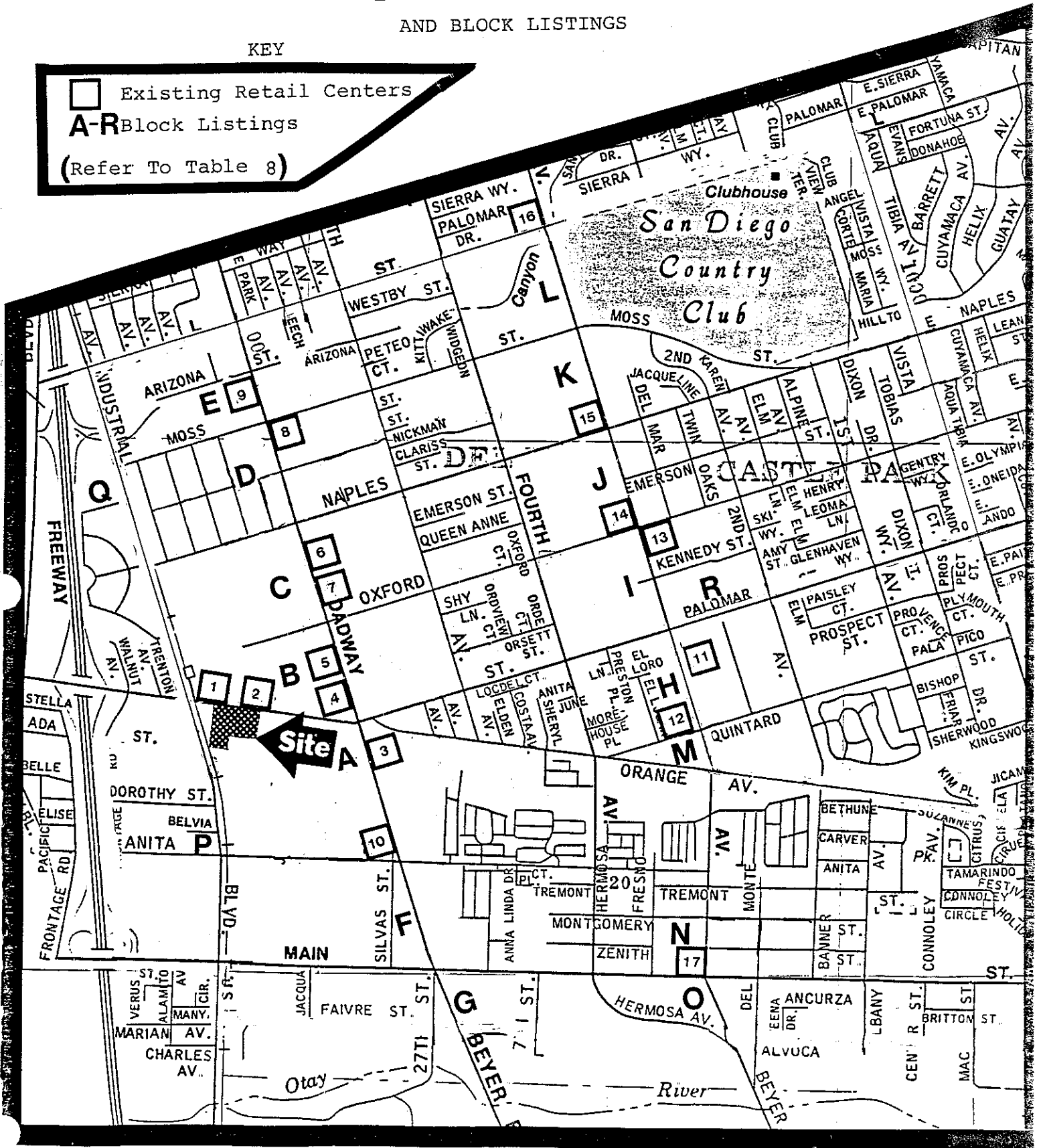




Figure 4  
 EXISTING RETAIL CENTERS  
 AND BLOCK LISTINGS

KEY

Existing Retail Centers  
**A-R** Block Listings  
 (Refer To Table 8)



Source: CIC Research, Inc., 1988

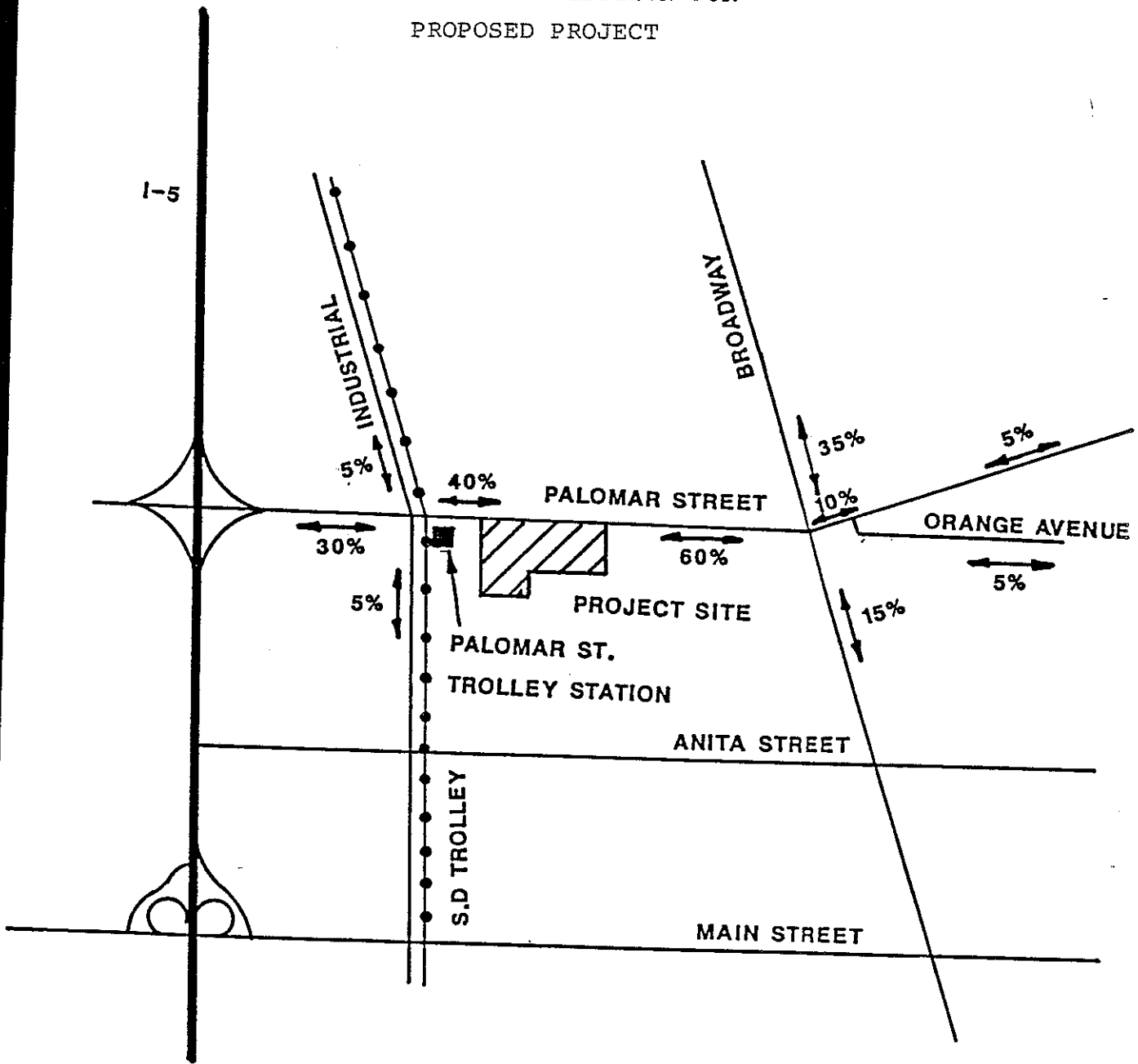
projects, CIC determined the potentially impacted retail areas to include Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway clearly represents the largest retail market with a total of 830,378 square feet, of which 661,896 are classified as retail centers ranging in size from 6,000 to 290,000 square feet. Third Avenue represents the second largest retail market with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of retail space in centers and 11,600 square feet of freestanding or small strip space. These three streets form the market impact area, which represents the majority of retail developments with potential to be physically impacted due to an oversupply of retail space caused by the development of the subject property.

#### TRAFFIC PATTERNS AND VOLUMES

Traffic distribution for the proposed project (see Figure 5) was determined by Willdan Associates and confirmed by JHK and Associates. The majority of trips (60%) are projected to be generated from traffic originating from the east along Palomar Street, of which 35 percent will orient from Broadway north of Palomar Street and only 15 percent will orient from Broadway south of Palomar.

Figure 5  
 TRAFFIC DISTRIBUTION FOR  
 PROPOSED PROJECT



Source: Willdan Associates

This would indicate that retail developments along Broadway north of Palomar will have higher potential to be impacted both positively and negatively by the proposed development than retail developments along Broadway south of Palomar. Only ten percent of the traffic to the site is projected to orient from Palomar and Orange Avenue east of Broadway, indicating a potentially slight impact on retail development along Third Avenue.

A projected 40 percent of the traffic to the site will orient to and from the west. Of this 40 percent, ten percent will orient from Industrial Boulevard, which has virtually no competitive retail space. An estimated 30 percent of the traffic to the study site will orient to and from Interstate 5. Interstate 5 (I-5) travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. However, it can be assumed that trip origins would be concentrated in proximity to the site with less frequency at greater distances from the Palomar Street interchange with I-5.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exits are presented in Table 1. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

Palomar Street between I-5 and Industrial Boulevard has experienced the highest percent change in traffic volumes from 1986

Table 1  
 AVERAGE DAILY TRAFFIC VOLUMES  
 (in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>% Change 1986-1987</u>	<u>% Change 1983-1987</u>
<b>Broadway</b>							
L Street & Naples Street	18.6	18.6	18.6	23.2	25.9	11.6%	39.2%
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	18.8	43.2
Palomar Street & Main Street	12.8	12.8	12.8	16.4	15.6	-4.9	21.9
<b>Industrial</b>							
Naples Street & Palomar Street	4.3	4.3	3.9	5.6	5.3	-5.4	23.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	-6.6	65.1
<b>Main Street</b>							
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	11.7	37.7
<b>Orange Avenue</b>							
Melrose Avenue & Interstate 805	17.9	18.8	18.8	18.8	23.2	23.4	29.6
<b>Otay Valley Road</b>							
Melrose Avenue & Interstate 805	14.0	14.0	14.0	14.9	18.9	26.8	35.0
<b>Palomar Street</b>							
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4	23.4	29.7	26.9	39.4
Industrial Blvd. & Broadway	22.0	22.0	22.1	22.9	28.2	23.1	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	-6.1	10.3
Fourth Avenue & Third Avenue	13.5	13.5	13.5	13.9	14.0	0.7	3.7
Third Avenue & Hilltop Drive	11.6	11.6	11.6	12.1	12.4	2.5	6.9
<b>Telegraph Canyon Road</b>							
L Street & Interstate 805	28.4	28.4	28.4	30.7	37.5	22.1	32.0
<b>Third Avenue</b>							
L Street & Moss Street	19.0	22.0	22.7	22.7	21.6	-4.8	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5	21.1	2.9	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7	19.7	19.6	-0.5	-2.0
Palomar Street & Quintard St.	15.6	15.6	15.6	15.9	18.0	13.2	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	5.8	15.9

Source: San Diego Association of Governments  
 CIC Research, Inc., 1988

to 1987 (26.9%). The traffic patterns indicate Palomar Street is the major western entrance to the Montgomery Specific Plan area. The major traffic routes within the market impact area include Palomar east to Broadway and north on Broadway. Broadway, extending north from Palomar Street to Naples Street and from Naples Street to L Street, experienced the largest traffic increase from 1986 to 1987 (18.8% and 11.6%, respectively) compared to the southern section of Broadway (Palomar Street to Main Street) with traffic decreasing 4.9 percent during the same period.

The percentage changes (1986 to 1987) in traffic volumes on the southern section of Third Avenue at Palomar Street/Quintard Street and Quintard Street/Main Street are greater (13.2% and 5.8%, respectively) than the northern section at Oxford Street/Palomar Street, Naples Street/Oxford Street, and L Street/Moss Street (-0.5%, 2.9% and 4.8%, respectively). However, in terms of actual numbers, the northern section has higher recorded traffic counts than the southern sections of Third Avenue.

The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1987 ADT volumes ranging from 15,600 to 27,900 as compared to Third Avenue which ranges from 14,600 to 21,600. Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

## DEMOGRAPHIC PROFILE

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Table 2 and 3). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway. Each identified retail center would have its own specific trade area depending on the type of tenants or use. For example, the Ralphps/Target Center would be considered a community center with a trade area extending approximately three to five miles. The Price Club would draw from a still larger trade area. A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within the primary market area (1.5 mile radius) the population is projected to grow at .1 percent per year (see Table 2) from 30,258 in 1988 to 30,413 in 1993. The 3.0-mile radius is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. These growth rates represents the slowest population increases in the four categories. Also, housing unit projections from 1988 to 1993 for the 1.5 mile radius represent the slowest growth (.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile radius. Again, these areas represent the slowest growth compared to the 5.0 or 10.0 mile areas. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table 3. The income level within a trade

Table 2  
MARKET AREA POPULATION AND HOUSING ESTIMATES

	<u>1980</u>	<u>1988</u> <u>Estimate</u>	<u>1990</u> <u>Estimate*</u>	<u>1993</u> <u>Estimate</u>	<u>Annual Percentage</u> <u>Change</u> <u>1980-90</u> <u>1988-93</u>
Population:					
1.5-mile distance	30,512	30,258	30,336	30,413	(.06)% .18
3.0-mile distance	144,540	164,919	171,748	178,576	1.7 1.6
5.0-mile distance	210,985	252,223	265,719	279,215	2.3 2.1
10.0-mile distance	514,576	606,458	635,945	665,431	2.1 1.9
Housing Units:					
1.5-mile distance	11,748	12,908	12,956	13,004	1.0 .2
3.0-mile distance	48,416	57,449	59,936	62,423	2.2 1.7
5.0-mile distance	70,384	86,301	91,015	95,729	2.6 2.1
10-mile distance	166,511	203,670	215,030	226,390	2.6 2.1

\*1990 estimates by CIC Research, Inc.

Source: National Decision Systems



Table 3  
 MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile Distance</u>	<u>3.0 Mile Distance</u>	<u>5.0 Mile Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems

area is important not only in terms of total dollars available, but also in relation to spendable income by retail category. The 1.5-mile radius has the lowest average household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). Within the 1.5 mile radius the majority (53%) have annual household incomes ranging from \$7,500 to \$24,999, whereas the 3.0 mile radius has only 39 percent of the population within the same income range. The population within the 1.5 mile radius will spend a higher proportion of household income on food, compared to the 3.0 or 5.0 mile radii, due to the lower average household income. On the other hand, the residents within the 3.0 and 5.0 mile areas will spend a higher proportion of their income on nonfood items. The income level of a trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

#### RETAIL EXPENDITURE POTENTIAL

Current (1988) and forecasted (1990) retail expenditures by State Board of Equalization (SBE) categories for the four areas are detailed in Tables 4 and 5. Potential expenditures were estimated by National Decision Systems (NDS) using statistical projections based on the Census of Retail Trade. Retail expenditures are relative to the number of households and retail establishments within the given market area.

Table 4  
 RETAIL EXPENDITURE POTENTIAL  
 1988  
 (values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$38,916	\$192,317	\$289,283	\$670,186
Eating & drinking place	17,283	85,179	128,122	296,957
Drug & proprietary	6,421	30,078	45,214	105,721
Gasoline service station	15,500	78,485	118,091	272,475
General merchandise	26,970	128,644	193,423	450,831
Apparel & accessories	7,864	42,279	63,657	145,467
Furniture, furnishings & equip.	7,850	45,637	68,769	155,296
Automotive dealer	29,008	150,580	226,631	520,791
Hardware, lumber & garden	7,892	40,764	61,348	141,091
Other retail	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
Total retail	<u>\$172,531</u>	<u>\$887,239</u>	<u>\$1,335,200</u>	<u>\$3,072,930</u>

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Source: CIC Research, Inc., 1988  
 National Decision Systems

Table 5  
 RETAIL EXPENDITURE POTENTIAL  
 1990  
 (values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$42,918	\$238,076	\$374,078	\$865,469
Eating & drinking place	19,060	105,446	165,677	383,486
Drug & proprietary	7,081	37,235	58,467	136,527
Gasoline service station	17,094	97,160	152,706	351,870
General merchandise	29,743	159,253	250,119	582,197
Apparel & accessories	8,673	52,339	82,316	187,854
Furniture, furnishings & equipment	8,657	56,496	88,927	200,547
Automotive dealer	31,991	186,409	293,061	672,542
Hardware, lumber & garden	8,704	50,463	79,330	182,203
Other retail	<u>16,352</u>	<u>115,470</u>	<u>181,893</u>	<u>405,644</u>
Total retail	<u>\$190,273</u>	<u>\$1,098,347</u>	<u>\$1,726,574</u>	<u>\$3,968,339</u>

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Source: CIC Research, Inc., 1988  
 National Decision Systems

Table 10  
 ESTIMATED SQUARE FOOTAGE OF  
 RETAIL SPACE BY TYPE OF BUSINESS

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	65,766	33			65,766	33
General merchandise	389,550	9			389,550	9
Drug stores	43,150	4			43,150	4
Food stores	177,311	24	26,836	10	204,147	34
Packaged liquor Eating and drinking places	14,440	6			14,440	6
Home furnishings and appliances	139,830	51	53,730	19	193,560	70
Building materials and farm implements	141,169	21			141,169	21
Auto supplies/dealers	157,570	6			157,570	6
Service stations	14,384	8			14,384	8
Other retail stores	7,600	4			7,600	4
	<u>136,759</u>	<u>54</u>	<u>1,344</u>	<u>1</u>	<u>138,103</u>	<u>55</u>
Retail store total	1,287,529	220	81,910	30	1,369,439	250
All other outlets	<u>118,502</u>	<u>69</u>	<u>2,000</u>	<u>1</u>	<u>120,502</u>	<u>70</u>
Total space surveyed	<u>1,406,031</u>	<u>289</u>	<u>83,910</u>	<u>31</u>	<u>1,489,941</u>	<u>320</u>

Source: CIC Research, Inc., December 1988

Table 11  
 SUBJECT PROJECT POTENTIAL SALES -  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	15,000	100.52	1,508
Drug stores	9,000	179.09	1,612
Food stores			
supermarket	45,280	371.37	16,816
specialty	<u>3,500</u>	128.82	<u>451</u>
	48,780		17,267
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>29,250</u>	155.33	<u>4,543</u>
	31,250		4,784
All other outlets			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	
 Total	 <u><u>127,365</u></u>		 <u><u>\$27,998</u></u>

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Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

Table 12  
 SUBJECT PROJECT POTENTIAL SALES -  
 OFF-PRICE SHOPPING CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	10,000	\$145.72	\$1,457
Gen. merchandise stores	45,280	100.52	4,552
Food stores	10,500	128.82	1,353
Packaged liquor	3,500	206.26	722
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Furniture, furnishings	15,000	127.59	1,914
Auto dealers & supplies	2,200	133.32	293
Other retail stores	23,550	155.33	3,658
All other outlets	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	--
 Total	 <u>127,365</u>		 <u>\$15,902</u>

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Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

Shopping Centers" and represent medians; however, sales levels could exceed these amounts for outlets that are particularly appropriate for the location, and income levels of area households. The major difference between the two approaches is represented by the sales rate and square footage for a supermarket in Scenario 1, producing an indicated total gross income for the entire center of \$27,998,000.

#### RETAIL MARKET IMPACT

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 13 presents a comparison of the existing square footages and outlets in and adjacent to the Montgomery Specific Plan area with the supermarket/drug store concept. Overall, this scenario would represent eight percent of both the existing retail square footage and outlets. Assuming all of the known planned retail space was built by mid-1990 (163,983 square feet), the subject development would then account for seven percent of area retail space.

Categories in which the center would represent a higher proportion of retail space would be in drug stores, food stores, and other outlets.<sup>3</sup> A drug store would generate increased competition among other drug stores in the area. However, the addition of fast food restaurants would generate more activity for similar

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<sup>3</sup>"Other outlets" here is used only as a catch-all category since the actual types of outlets is undetermined.



Table 13  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA  
 SCENARIO 1

	Existing Occupied Retail Space		Scenario 1 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	6,000	1	8%	3%
General merchandise	389,550	9	15,000	1	4	10
Drug stores	43,150	4	9,000	1	17	20
Food stores	204,147	34	48,780	3	19	8
Packaged liquor	14,440	6	--	--	0	0
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	--	--	0	0
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	--	--	0	0
Service stations	7,600	4	--	--	0	0
Other retail stores	<u>138,103</u>	<u>55</u>	<u>31,250</u>	<u>16</u>	<u>18</u>	<u>22</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

outlets near Palomar and Broadway, at the expense of the market shares held by restaurants along Third Avenue.

In Table 14, the off-price center concept is evaluated in the same manner. The difference in representation by grouping is a greater emphasis in apparel, general merchandise, liquor, furniture, and auto supplies categories. This emphasis, however, does not translate directly to potential impacts, since with the exception of general merchandise, the existing representation of these outlets is relatively low.

In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17 percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets.

The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

A third means of evaluating market impact is to estimate pro-rata sales capture rates for the project at the time it would open. Conclusions of this approach are presented in Table 15. At the bottom of the table, the total estimated sales from Scenario 1

Table 14  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA  
 SCENARIO 2

	Existing Occupied Retail Space		Scenario 2 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	10,000	5	13%	13%
General merchandise	389,550	9	45,280	1	10	10
Drug stores	43,150	4	--	--	0	0
Food stores	204,147	34	10,500	4	5	11
Packaged liquor	14,440	6	3,500	1	20	14
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	15,000	1	10	5
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	2,200	1	13	11
Service stations	7,600	4	--	--	0	0
Other retail stores	<u>138,103</u>	<u>55</u>	<u>23,550</u>	<u>9</u>	<u>15</u>	<u>14</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

Table 15  
 MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
 (1988 dollars, values in thousands)

	Estimated 1990 Retail Sales			Palomar Trolley Center		Palomar Trolley Center							
	Trade Area Around Site			Projected Sales		Capture of Market Area Sales							
	1.5 Miles	3.0 Miles	5.0 Miles	#1	#2	1.5 Miles	3.0 Miles	5.0 Miles	1.5 Miles	3.0 Miles	5.0 Miles		
						Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2
Apparel	\$8,673	\$52,339	\$82,316	\$874	\$1,457	10%	17%	2%	3%	1%	2%		
General merchandise	29,743	159,253	250,119	1,508	4,552	5	15	1	3	1	2		
Drug stores	7,081	37,235	58,467	1,612	--	23	--	4	--	3	--		
Food stores	42,918	238,076	374,078	17,267	2,075	40	3	7	1	5	--		
Eating and drinking places	19,060	105,446	165,677	1,743	1,743	9	9	2	2	1	1		
Furniture, furnishings and appliances	8,657	56,496	88,927	--	1,914	--	22	--	3	--	2		
Building materials and farm implements	8,704	50,463	79,330	--	--	--	--	--	--	--	--		
Auto dealers and supplies	31,991	186,409	293,061	--	293	--	1	--	--	--	--		
Service stations	17,094	97,160	152,706	--	--	--	--	--	--	--	--		
Other retail stores	16,352	115,470	181,893	4,784	3,658	29	22	4	3	3	2		
Subtotal	\$190,273	\$1,098,347	\$1,726,574	\$27,788	\$14,970	15%	8%	3%	1%	2%	1%		
All other outlets	--	--	--	210	210	N/A	N/A	N/A	N/A	N/A	N/A		
Total	\$190,273	\$1,098,347	\$1,726,574	\$27,998	\$15,902	15%	8%	3%	1%	2%	1%		

Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
 National Decision Systems

(supermarket/drug store anchors) would represent 15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area.

By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The three mile area would extend eastward to I-805. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.

Given the three-mile market size, the food store would capture the largest share of retail expenditures, at a seven percent rate.<sup>4</sup> The drug store in Scenario 1 would represent the next largest addition to the market requiring four percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market.

The second scenario, requiring eight percent of expenditures from the 1.5 mile region and one percent of the cumulative

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<sup>4</sup>Retail developments outside the Montgomery Specific Plan area, but within three miles, were not considered in this part of the analysis as their market areas and capture rates would also need to be estimated. Given the limitations established by the scope of the study, the analysis represents a comparison only for retail establishments within the Montgomery Plan area.

expenditures up to three miles from the site would not be expected to significantly affect any particular category of retail business.

#### GROWTH AND RETAIL DEMAND

Although the relative proportions of the market that the study site represents appear small, as either eight percent of total square footage or one to three percent of potential sales, whatever sales capture occurs, most will be obtained through competing with existing and planned outlets. Very little of the site's revenues can be expected from growth of population or households.

Growth in the number of households within 1.5 and 3.0 miles of the site is expected to occur at 0.2 and 1.7 percent annual rates. Based on the estimated 1,495,907 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 5,966 to 51,089 additional square feet would be required at these projected rates of growth.

Planned retail centers (not including the subject) would represent an additional 163,983 square feet or a 5.1 percent increase in space over the next two years. Adding the subject project, a total of 291,348 square feet would be added, or a 9.0 percent annual increase in two years, above the amount of existing occupied space.

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. It is assumed that land

and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these newer centers to have high occupancy rates and average to high lease rates for the area in order to break even. Furthermore, development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers.

Centers that could be affected by both planned development and the subject project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located on a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.

Naples Center entails a total of 20,452 square feet and is located in the middle of the 1300 block of Broadway; two units containing 10,048 square feet are vacant (49% vacancy). Tenants include a U.S. Armed Services recruiting office, print shop, arcade, and a cabinet shop. At 1010 Broadway, a 12,272 square foot center has a variety of users including an office for motor vehicle registration, a liquor store, a laundry, a video rental outlet, and a financial services firm. Two units are vacant (3,460 square feet, or 28%). A fourth center just north of the Montgomery Specific Plan area in the 900 block of Broadway could also be

affected. This center has a check cashing/lottery business and a nondescript financial services operation as main tenants. Another outlet, Los Gallos, will be renting the end unit along Moss Street. Built in 1987, this center has approximately 11,400 square feet, 3,400 of which (30%) is vacant.

Whereas retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine these uses for mutual support, the above-mentioned centers were unable to attract a functional combination of tenant types. Leasing activity up to this point has allowed nearly any business that will sign a lease. Such haphazard combinations can discourage subsequent tenants from locating in the center. Other better located and planned centers will continued to out-compete these centers for tenants.

The subject development is a much better located center and has indicated specific leasing plans. Even if lease rates are higher at the subject center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway.

The result of this competition for tenants in a market where retail space is being added faster than housing units may be continued vacancies in the smaller centers. Lower lease rates or more concessions and possible failures could result, given the individual margins under which each must operate. However, it is unlikely that such failures would occur. The reason is that the low-end users noted above predominate in the Broadway area and centers catering to such tenants should expect both slow lease-up



activity, above average tenant turnover, and allowances for uncollected rent.

In regards to development of Palomar Trolley Center, growth of the retail district at Palomar and Broadway is dependent upon expansion of the market area that the district serves. This expansion could be growth in the number of households, greater depth in the existing area through capture of larger market shares, or more penetration into more distant neighborhoods and communities. The subject center is well located to accomplish such expansion in any of these approaches by correctly choosing appropriate anchors and auxiliary shops. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

It is not possible to determine that vacancies will persist in existing retail facilities, or that leasing of the subject center would cause extended periods of vacancy for other planned retail developments. Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers.

Persistent vacancies can not be ascribed to the eventual marketing of the subject center, mainly since it is not significantly large to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to even their construction. The mistakes or choices made by these other developers will not be directly affected by the subject project, or be impacted from cumulative effects of the project.



## MITIGATION OF POTENTIAL IMPACTS

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects of impacts can be anticipated to buildings or shopping centers. Because no impacts have been identified, there are no mitigation measures to be associated with the project.

Development of the subject project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the subject development is not

seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present..."<sup>5</sup>, but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infilling sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.

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<sup>5</sup>City of Chula Vista, General Plan Digest, September 1988, pg. 8.



## ANALYSIS OF SIGNIFICANCE

### BENEFITS FROM PROJECT

Benefits to the community from the subject development are increased retail sales tax receipts for the City and a convenient, useful shopping facility for consumers. These attributes are described below to allow comparison to other implications of the project.

#### Fiscal Impact

The fiscal impact from the development would result from the change in land use and zoning from Limited Industrial (M-52) to Neighborhood Commercial (C-N). In general, industrial development is expected to generate revenues at 74 percent of annual municipal operating costs, on a per-acre basis. Retail development can generally be expected to return 130 percent of operating expenses on a per-acre basis. Given approximate operating expenditures for public safety, etc., of \$10,000 per acre per year for retail development and \$4,300 for industrial, the net benefit from retail development would be approximately \$4,200 per acre or \$51,366 annually from retail development of the site.

A second level of fiscal impact is determined by estimating the proportion of revenues that would be provided by sources outside

the City, i.e. capture of retail sales tax revenues from nonresidents. This calculation is made in Table 16. Expenditures at the study site are estimated for the 2,715 households within 1.5 miles of the site, but lying outside the City boundaries. First a determination of the degree at which each retail category would be represented at the site (i.e. because a small proportion of apparel shopping is conducted at neighborhood centers compared to community, regional, and specialty centers, apparel sales were given 25 percent categorical representation at the site). A second order of reduction in sales capture was determined by proportionate square footages in competitive outlets in the area.

Retail sales tax represents approximately 77 percent of annual revenues accruing to the City from retail development. The \$22,707 in sales tax revenue generated from nonresidents within 1.5 miles of the site would account for eight percent of total sales tax receipts, based on the supermarket/drug store concept. This estimate of outside capture is considered to be conservative since only households within a short driving distance from the site were included.

#### Convenience

The attributes of the site location for retail use were described in Chapter 2 of this report. A successful development would provide the community with additional convenient, and hopefully worthwhile, shopping opportunities.

Table 16  
 STUDY SITE POTENTIAL SALES TAX REVENUES  
 (generated from outside of Chula Vista)  
 (1.5 mile radius)

<u>Retail Category</u>	<u>Site Tenant Mix Market Representation</u>	<u>1990 Households Projection</u>	<u>Potential Sales Per Household*</u>	<u>Site Capture Rate</u>	<u>Potential Site Capture</u>	<u>City Share of Sales Tax Receipts</u>
Food store	100%	2,715	\$961	25%	\$652,279	\$6,523
Eating & drinking places	100	2,715	1,334	18	651,926	6,519
Drug stores	100	2,715	496	50	673,320	6,733
General merchandise	25	2,715	2,082	3	42,395	424
Apparel	25	2,715	607	30	123,600	1,236
Furniture & furnishings	25	2,715	606	4	16,453	165
Hardware, lumber and garden	25	2,715	609	8	33,069	331
Other retail	25	2,715	<u>1,144</u>	10	<u>77,649</u>	<u>776</u>
			\$7,839		\$2,270,691	\$22,707

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\*Taxable 1988 dollars.

Source: CIC Research, Inc., 1988  
 National Decision Systems

## CONSIDERATIONS REGARDING COMPETITION

In the prior chapter, it was noted that the subject retail center would continue in the trend creating increasing competitiveness among smaller centers along Broadway. It was also noted in the chapter prior to that that potential for business losses or failures was rooted in location and design problems associated with these centers/outlets. While the subject center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences. It is in the best interest of consumers to allow this process to continue with as little direct interference as possible. Actions such as aligning planning policies to support existing and desirable retail facilities represent the best means to accommodate changes in retail trends as they occur.





APPENDIX A

LISTING OF RETAIL FACILITIES  
IN MARKET AREA BY STATE BOARD  
OF EQUALIZATION CATEGORIES

LISTING OF STATE BOARD OF EQUALIZATION CATAGORIES  
FOR APPENDIX A

TYPE OF BUSINESS -----	S.B.E. CATAGORY -----
(NON- TAXABLE BUSINESSES, VACANCIES)	
APPAREL STORES	1
GENERAL MERCHANDISE STORES	2
DRUG STORES	3
FOOD STORES	4
PACKAGED LIQUOR STORES	5
EATING & DRINKING PLACES	6
HOME FURNISHINGS AND APPLIANCES	7
BUILDING MATERIALS & FARM IMPLEMENTS	8
AUTO DEALERS & SUPPLIES	9
SERVICE STATIONS	10
OTHER RETAIL STORES NOT CLASSIFIED ABOVE	11
ALL OTHER OUTLETS	12

TABLE A-1  
 CHULA VISTA MARKET AREA RETAIL SPACE  
 BY S.B.E. CATEGORIES

NAME	ADDRESS	CENTER TYPE	TYPE RETAIL	MARKET BASE	SBE GROUP	DIMENSIONS (IN FEET)		
						LENGTH	DEPTH	SQUARE FEET
ARCH PLAZA	1000 BROADWAY	STRIP	VACANT			75	40	3,000
NAPLES CENTER	1100 BROADWAY	STRIP	VACANT			64	137	8,768
MAIN CENTER	1700 BROADWAY	MIXED USE	VACANT			24	60	1,440
NAPLES CENTER	1100 BROADWAY	STRIP	VACANT			20	64	1,280
	1000 BROADWAY	MIXED USE	VACANT			20	43	860
	300 PALOMAR STREET	FREESTANDING	VACANT			60	10	600
	1000 BROADWAY	MIXED USE	VACANT			50	52	2,600
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			40	56	2,240
	200 PALOMAR STREET	SPECIALTY	VACANT			25	60	1,500
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			23	56	1,288
	1000 THIRD	SPECIALTY	VACANT			15	40	600
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			60	50	3,000
	1700 BROADWAY	MIXED USE	VACANT			42	40	1,680
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			25	56	1,400
	1100 BROADWAY	FREESTANDING	VACANT			30	100	3,000
	1700 BROADWAY	FREESTANDING	VACANT			40	40	1,600
PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	VACANT			75	156	11,700
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	VACANT			25	45	1,125
	1000 BROADWAY	FREESTANDING	VACANT			40	40	1,600
PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	VACANT			25	102	2,550
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			20	116	2,320
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			60	50	3,000
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VACANT			25	60	1,500
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VACANT			25	60	1,500
BIG BEAR CENTER	1300 THIRD	SPECIALTY	VACANT			34	40	1,360
BIG BEAR CENTER	1300 THIRD	CONVENIENCE	VACANT			46	50	2,300

	1100 THIRD AVENUE	FREESTANDING	VACANT	30	50	1,500
CAL-STORE PLAZA	900 BROADWAY	SPECIALTY	VACANT	86	40	3,440

VACANT TOTAL ----- 68,751

BROADWAY POINT	1100 BROADWAY	STRIP	INSURANCE	R	56	952
	1000 THIRD AVENUE	STRIP	CHURCH	R	40	1,200
	1000 BROADWAY	STRIP	CONSTRUCTION	R	20	1,000
VONS CENTER	1300 THIRD	NEIGHBORHOOD	BANK	R	67	3,685
	1000 BROADWAY	STRIP	VETERINARIAN	R	50	1,000
VONS CENTER	1300 THIRD	NEIGHBORHOOD	FINANCE	R	67	1,139
VONS CENTER	1300 THIRD	NEIGHBORHOOD	POST OFFICE	R	67	1,675
MAIN CENTER	1700 BROADWAY	MIXED USE	INSURANCE	R	40	720
	1300 THIRD AVENUE	CONVENIENCE	LIBRARY	R	60	2,400
MAIN CENTER	1700 BROADWAY	MIXED USE	OFFICE	R	40	960
	1200 THIRD AVENUE	STRIP	TAX	R	35	1,050
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	DOCTOR	R	25	1,125
	1300 THIRD AVENUE	CONVENIENCE	REAL ESTATE	R	20	800
	1000 THIRD AVENUE	STRIP	CHURCH	R	25	1,000
	1000 BROADWAY	MIXED USE	TV	R	43	860
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VET	R	25	1,500
	1300 THIRD AVENUE	STRIP	REAL ESTATE	R	25	1,250
	1300 THIRD AVENUE	STRIP	BASEBALL CARDS	R	25	1,250
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	CHURCH	R	50	2,500
	1000 THIRD AVENUE	FREESTANDING	OPTICIAN	R	40	800
	1000 BROADWAY	MIXED USE	DWV	R	20	860
	1200 THIRD AVENUE	STRIP	OFFICE	R	30	1,500
	1000 BROADWAY	MIXED USE	FINANCE	R	43	1,720
NAPLES CENTER	1100 BROADWAY	STRIP	ADMINISTRATION	R	23	1,380
	1000 BROADWAY	MIXED USE	REAL ESTATE	R	43	860
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	CLINIC	R	25	1,500
	1000 THIRD AVENUE	MIXED-USE	INSURANCE	R	40	1,600
	1000 THIRD AVENUE	MIXED-USE	TAX	R	50	2,000
MAIN CENTER	1700 BROADWAY	MIXED USE	INSURANCE	R	22	880

MAIN CENTER	1700 BROADWAY	MIXED USE	DOCTOR	R	70	70	4,900
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	TAX	R	25	45	1,125
NAPLES CENTER	1100 BROADWAY	STRIP	AIR FORCE	R	40	64	2,560
	1008 MOSS/INDUSTRIAL	MIXED-USE	BEAUTY COLLEGE	R	49	60	2,940
MAIN CENTER	1700 BROADWAY	MIXED USE	DOCTOR	R	18	60	1,080
	1200 BROADWAY	SPECIALTY	TRAVEL	R	20	40	800
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	CABLE ADMIN.	R	30	45	1,350
MAIN CENTER	1700 BROADWAY	MIXED USE	TAX	R	18	40	720
BROADWAY POINT	1100 BROADWAY	STRIP	POST OFFICE	R	20	56	1,120
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NON-RETAIL TOTAL							55,761

PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	17	50	850
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	60	52	3,120
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	SHOES	R	31	137	4,247
MAIN CENTER	1700 BROADWAY	MIXED USE	BOOTS	R	86	40	3,440
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHS	R	44	67	2,948
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
BROADWAY POINT	1100 BROADWAY	STRIP	CLOTHES	R	60	56	3,360
	1000 THIRD AVENUE	STRIP	SHOES	R	20	40	800
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHES	R	40	67	2,680
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHES	R	25	100	2,500
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
VONS CENTER	1300 THIRD	NEIGHBORHOOD	SHOES	R	43	67	2,881
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	SHOES	R	23	50	1,150
PALOMAR SQUARE	1300 BROADWAY	STRIP	JEWELRY	R	20	50	1,000
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	15	50	750
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	CLOTHES	R	40	107	4,280
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	48	50	2,400
	900 THIRD AVENUE	STRIP	JEWELRY	R	20	20	400
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	28	52	1,456
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	52	52	2,704
	1000 THIRD AVENUE	FREESTANDING	CLOTHING MATERIAL	R	40	60	2,400



MAIN CENTER	1700 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	42	40	1,680
	1700 BROADWAY	FREESTANDING	MARKET	E	4	90	90	8,100
	1300 BROADWAY	CONVENIENCE	7-11	E	4	50	40	2,000
	INDUSTRIAL/BELVIA	CONVENIENCE	CONVENIENCE	E	4	50	40	2,000
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	BAKERY	E	4	52	52	2,704
	THIRD/MAIN	CONVENIENCE	CONVENIENCE	E	4	60	50	3,000
PALOMAR SQUARE	1700 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	60	40	2,400
BROADWAY POINT	1300 BROADWAY	STRIP	DONUT	E	4	20	50	1,000
	1100 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	17	56	952
	THIRD/MONTGOMERY	CONVENIENCE	AM/PM	E	4	60	50	3,000

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EMPLOYMENT FOOD STORE TOTAL 26,836

	1300 THIRD AVENUE	CONVENIENCE	7-11	R	4	60	40	2,400
ARCH PLAZA	1000 BROADWAY	CONVENIENCE	7-11	R	4	50	60	3,000
	1000 BROADWAY	STRIP	ICE CREAM	R	4	19	40	760
NAPLES PLAZA	1000 BROADWAY	CONVENIENCE	CONVENIENCE	R	4	60	43	2,580
	NW CORNER THIRD/NAPLES	STRIP	DELI	R	4	60	45	2,700
VONS CENTER	1300 THIRD AVENUE	FREESTANDING	COUNTRY GROCERY	R	4	50	40	2,000
	1300 THIRD	NEIGHBORHOOD	GROCERY	R	4	157	213	33,441
	PALOMAR/THIRD	STRIP	DONUT	R	4	30	50	1,500
BIG BEAR CENTER	1200 THIRD AVENUE	STRIP	FOOD	R	4	30	35	1,050
	1300 THIRD	NEIGHBORHOOD	GROCERY	R	4	170	153	26,010
	1000 BROADWAY	FREESTANDING	BUTCHER SHOP	R	4	60	30	1,800
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	DELI	R	4	30	60	1,800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	BUTCHER	R	4	48	50	2,400
	THIRD/MONTGOMERY	FREESTANDING	FRUIT	R	4	30	40	1,200
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	PRODUCE	R	4	30	50	1,500
LONGS/VONS CENTER	1200 THIRD AVENUE	STRIP	BAKERY	R	4	30	35	1,050
	800 THIRD	NEIGHBORHOOD	ICE CREAM	R	4	22	60	1,320
LONGS/VONS CENTER	1000 THIRD AVENUE	FREESTANDING	DONUT	R	4	30	50	1,500
	800 THIRD	NEIGHBORHOOD	VONS	R	4	170	130	22,100
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CANDY	R	4	14	50	700

RALPH'S CENTER	1200 BROADWAY	COMMUNITY	RALPH'S	R	4	170	325	55,250
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	ICE CREAM	R	4	25	60	1,500
	1200 THIRD AVENUE	STRIP	GROCERY	R	4	50	35	1,750
	1300 THIRD AVENUE	SPECIALTY	GROCERY	R	4	80	100	8,000

RESIDENTIAL FOOD STORE TOTAL ----- 177,311

EMPLOYMENT AND RESIDENTIAL FOOD STORE TOTAL ----- 204,147

PALOMAR SQUARE	1300 BROADWAY	STRIP	LIQUOR	R	5	40	116	4,640
BIG BEAR CENTER	1300 THIRD	CONVENIENCE	LIQUOR	R	5	50	50	2,500
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	LIQUOR	R	5	40	45	1,800
	THIRD/MAIN	CONVENIENCE	LIQUOR	R	5	45	50	2,250
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	LIQUOR	R	5	25	50	1,250
	1000 THIRD AVENUE	STRIP	LIQUOR	R	5	50	40	2,000

LIQUOR STORE TOTAL ----- 14,440

THIRD/TREMONT		FREESTANDING	FAST FOOD	E	6	30	45	1,350
1100 BROADWAY		FREESTANDING	PIZZA	E	6	50	90	4,500
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	52	2,600
	THIRD/MONTGOMERY	FREESTANDING	FAST FOOD	E	6	30	50	1,500
	200 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	60	3,000
PALOMAR SQUARE	1300 BROADWAY	STRIP	JACK IN THE BOX	E	6	40	100	4,000
BROADWAY POINT	1100 BROADWAY	STRIP	RESTAURANT	E	6	60	56	3,360
PALOMAR SQUARE	1300 BROADWAY	STRIP	KFC	E	6	50	80	4,000
	300 PALOMAR STREET	FREESTANDING	FAST FOOD	E	6	50	70	3,500
MAIN CENTER	INDUSTRIAL/BELVIA	CONVENIENCE	RESTAURANT	E	6	50	40	2,000
	1700 BROADWAY	MIXED USE	RESTAURANT	E	6	50	100	5,000
	1100 BROADWAY	FREESTANDING	RESTAURANT	E	6	50	90	4,500
BROADWAY POINT	1300 BROADWAY	FREESTANDING	RESTAURANT	E	6	60	100	6,000
MAIN CENTER	1100 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
	1700 BROADWAY	MIXED USE	PIZZA	E	6	18	40	720



BROADWAY POINT	1100 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
MAIN CENTER	1700 BROADWAY	MIXED USE	REST	E	6	26	60	1,560
	THIRD/MONTGOMERY	FREESTANDING	RESTAURANT	E	6	40	60	2,400
	200 PALOMAR STREET	SPECIALTY	PIZZA	E	6	25	60	1,500

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EMPLOYMENT EATING AND DRINKING TOTAL 53,730

	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
	1000 BROADWAY	FREESTANDING	RESTAURANT	R	6	60	90	5,400
	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
ARCH PLAZA	1000 BROADWAY	STRIP	RESTAURANT	R	6	40	40	1,600
	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
	1000 BROADWAY	FREESTANDING	RESTAURANT	R	6	100	60	6,000
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FAST FOOD	R	6	20	50	1,000
	1000 THIRD	SPECIALTY	RESTAURANT	R	6	30	40	1,200
	1000 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	50	2,500
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	RESTAURANT	R	6	60	60	3,600
	1000 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	30	40	1,200
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	FAST FOOD	R	6	50	40	2,000
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	FAST FOOD	R	6	30	75	2,250
MAIN CENTER	1700 BROADWAY	MIXED USE	BAR	R	6	87	60	5,220
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	RESTAURANT	R	6	60	110	6,600
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	SANDWICH	R	6	17	60	1,020
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	MCDONALD'S	R	6	75	100	7,500
MAIN CENTER	1700 BROADWAY	MIXED USE	CLUB	R	6	95	60	5,700
	1000 THIRD AVENUE	FREESTANDING	BAR	R	6	30	45	1,350
BIG BEAR CENTER	1300 THIRD	SPECIALTY	RESTAURANT	R	6	41	40	1,640
	900 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	60	70	4,200
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FAST FOOD	R	6	24	50	1,200
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	PIZZA	R	6	25	100	2,500
	1100 BROADWAY	FREESTANDING	BAR	R	6	50	50	2,500
VONS CENTER	1300 THIRD	NEIGHBORHOOD	KFC	R	6	40	70	2,800
BIG BEAR CENTER	1300 THIRD	SPECIALTY	RESTAURANT	R	6	40	40	1,600
	1100 THIRD AVENUE	FREESTANDING	BAR	R	6	25	40	1,000

VONS CENTER	1300 THIRD	NEIGHBORHOOD	R	6	15	67	1,005
	1300 THIRD AVENUE	SPECIALTY	R	6	40	100	4,000
BIG BEAR CENTER	1300 THIRD	SPECIALTY	R	6	48	40	1,920
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	R	6	35	45	1,575
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	R	6	50	70	3,500
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	R	6	60	90	5,400
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	R	6	30	45	1,350
	1100 THIRD AVENUE	FREESTANDING	R	6	50	50	2,500
	1200 THIRD AVENUE	FREESTANDING	R	6	40	50	2,000
	PALOMAR/THIRD	STRIP	R	6	30	50	1,500
	1300 THIRD AVENUE	FREESTANDING	R	6	60	60	3,600
	1300 THIRD AVENUE	FREESTANDING	R	6	50	50	2,500
	1000 THIRD AVENUE	STRIP	R	6	120	60	7,200
	1000 THIRD AVENUE	STRIP	R	6	25	40	1,000
	1200 THIRD AVENUE	STRIP	R	6	50	60	3,000
	1000 THIRD AVENUE	FREESTANDING	R	6	40	50	2,000
	1000 THIRD AVENUE	STRIP	R	6	60	40	2,400
	1100 THIRD AVENUE	FREESTANDING	R	6	40	75	3,000
	1200 THIRD AVENUE	FREESTANDING	R	6	20	20	400
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	R	6	30	45	1,350
	1100 THIRD AVENUE	FREESTANDING	R	6	60	50	3,000
	1300 THIRD AVENUE	STRIP	R	6	30	40	1,200
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	R	6	12	50	600
	1200 THIRD AVENUE	STRIP	R	6	50	35	1,750
RESIDENTIAL EATING AND DRINKING TOTAL							139,830

RESIDENTIAL EATING AND DRINKING TOTAL 139,830

EMPLOYMENT AND RESIDENTIAL EATING AND DRINKING TOTAL 193,560

PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	R	7	123	100	12,300
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	R	7	36	50	1,800
	1200 BROADWAY	SPECIALTY	R	7	62	165	10,230
	1100 THIRD AVENUE	FREESTANDING	R	7	30	50	1,500
	1100 THIRD AVENUE	FREESTANDING	R	7	20	40	800

ADDRESS	APPLIANCE PARTS	REMARKS	QTY	UNIT PRICE	TOTAL
1200 THIRD AVENUE	APPLIANCE PARTS	R	7	50	350
1200 THIRD AVENUE	FURNITURE	R	7	50	350
700 PALOMAR STREET	STEREO	R	28	52	1,456
1200 BROADWAY	LEVITZ	R	151	196	29,596
1300 THIRD AVENUE	FURNITURE	R	60	268	16,080
1300 THIRD AVENUE	FURNITURE	R	7	45	315
SE CORNER THIRD/OXFORD	TV	R	7	60	420
PAC. COMMERCE BANK PLAZA	STEREO	R	7	30	210
NW CORNER THIRD/OXFORD	TV	R	7	40	280
1200 THIRD AVENUE	FURNITURE	R	7	100	700
1000 BROADWAY	STEREO	R	7	60	420
SE CORNER THIRD/OXFORD	FURNITURE	R	7	100	700
THIRD/MOSS	STEREO	R	7	45	315
NW CORNER THIRD/NAPLES	FURNITURE	R	7	100	700
1000 THIRD AVENUE	TV	R	7	40	280
1100 BROADWAY	TV	R	7	40	280
BROADWAY POINT	FURNITURE	R	7	60	420
RALPH'S CENTER	STEREO	R	7	91	637
HOME FURNISHINGS TOTAL					141,169

PALOMAR VILLAGE	HARDWARE	R	8	32	256
BIG BEAR CENTER	HARDWARE	R	8	153	1,224
1000 THIRD	HARDWARE	R	30	40	1,200
1000 THIRD	HARDWARE	R	60	40	2,400
700 PALOMAR STREET	HARDWARE	R	102	54	5,508
1200 BROADWAY	HOME CLUB	R	8	487	3,896
BUILDING MATERIALS TOTAL					157,570

1000 THIRD AVENUE	AUTO PARTS	R	9	50	450
1000 BROADWAY	AUTO DEALER	R	9		0
1200 BROADWAY	AUTO TIRES	R	9	50	450
1100 BROADWAY	AUTO PARTS	R	9	14	126
1000 THIRD	AUTO PARTS	R	9	15	135
TOTAL					1,061

1600 BROADWAY	FREESTANDING	AUTO SALES	R	9	0
1100 BROADWAY	FREESTANDING	AUTO DEALERS	R	9	0
900 THIRD AVENUE	STRIP	AUTO PARTS	R	9	5,500
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AUTO DEALERS AND AUTO SUPPLIES TOTAL					14,384

1200 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	40	1,600
THIRD/MAIN	CONVENIENCE	GAS STATION	R	10	50	2,000
1000 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	50	2,000
900 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	50	2,000
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SERVICE STATIONS TOTAL						7,600

NAPLES CENTER	STRIP	PRINT	E	11	21	64	1,344
BROADWAY POINT	STRIP	COMPUTER	R	11	56	80	4,480
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EMPLOYMENT'S OTHER RETAIL STORES TOTAL							5,824

PALOMAR SQUARE	STRIP	SEWING	R	11	20	116	2,320
BROADWAY POINT	STRIP	VIDEO	R	11	19	56	1,064
NAPLES PLAZA	STRIP	PET	R	11	40	45	1,800
TROLLEY SQUARE	SPECIALTY	PARTY	R	11	59	52	3,068
PLAZA DEL REY	STRIP	MIRROR	R	11	40	45	1,800
	FREESTANDING	COLOR TILE	R	11	80	50	4,000
TROLLEY SQUARE	SPECIALTY	PET	R	11	31	52	1,612
	FREESTANDING	BIKE SHOP	R	11	40	70	2,800
	MIXED-USE	CARPET	R	11	70	60	4,200
	FREESTANDING	SEWING	R	11	40	40	1,600
PLAZA DEL REY	STRIP	GIFT	R	11	25	45	1,125
TROLLEY SQUARE	SPECIALTY	BBY	R	11	48	52	2,496
	MIXED-USE	BEAUTY SUPPLY	R	11	42	60	2,520
PRICE CLUB CENTER	SPECIALTY	PET	R	11	26	50	1,300

BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	VACUUM	R	11	15	100	1,500
	1300 THIRD AVENUE	FREESTANDING	KEY SHOP	R	11	50	40	2,000
	1000 THIRD AVENUE	STRIP	POOL	R	11	25	40	1,000
PALOMAR SQUARE	1300 BROADWAY	STRIP	FLORIST	R	11	18	55	990
	1100 BROADWAY	FREESTANDING	TOY STORE	R	11	72	100	7,200
	1700 BROADWAY	MIXED USE	VIDEO	R	11	42	40	1,680
	1000 THIRD AVENUE	STRIP	PET	R	11	30	40	1,200
	1300 THIRD AVENUE	STRIP	PET STORE	R	11	25	50	1,250
	1000 THIRD AVENUE	STRIP	COMPUTER	R	11	30	40	1,200
	1200 BROADWAY	SPECIALTY	VIDEO	R	11	80	40	3,200
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	PHOTO	R	11	20	100	2,000
	1000 THIRD AVENUE	STRIP	ANTIQUES	R	11	20	45	900
NAPLES CENTER	1100 BROADWAY	STRIP	KITCHEN	R	11	20	64	1,280
	1100 THIRD AVENUE	FREESTANDING	TOY	R	11	20	40	800
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	GIFTS	R	11	50	60	3,000
	1100 BROADWAY	FREESTANDING	TOY	R	11	72	100	7,200
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VIDEO	R	11	30	60	1,800
BROADWAY POINT	1100 BROADWAY	STRIP	FLOWER	R	11	19	56	1,064
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	PET	R	11	30	60	1,800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FLOWERS	R	11	17	50	850
	200 PALOMAR STREET	SPECIALTY	FLOWER	R	11	25	60	1,500
	900 THIRD AVENUE	STRIP	AUTO GLASS	R	11	50	20	1,000
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	GIFT	R	11	20	34	680
PALOMAR SQUARE	1300 BROADWAY	STRIP	VIDEO	R	11	55	116	6,380
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	GIFT	R	11	15	60	900
	1200 BROADWAY	SPECIALTY	GLASSES	R	11	20	40	800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	BABY	R	11	30	50	1,500
	1200 BROADWAY	SPECIALTY	GIFT	R	11	16	40	640
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	PARTY GOODS	R	11	25	50	1,250
	1008 MOSS/INDUSTRIAL	MIXED-USE	TOY STORE	R	11	171	90	15,390
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	GIFTS	R	11	12	50	600
PALOMAR SQUARE	1300 BROADWAY	STRIP	PRINT	R	11	20	55	1,100
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	ART	R	11	30	50	1,500
	1000 THIRD AVENUE	MIXED-USE	COMPUTER	R	11	50	40	2,000
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	OFFICE SUPPLIES	R	11	50	60	3,000

MAIN CENTER	1700 BROADWAY	MIXED USE	TOY STORE	R	11	18	40	720
	1300 THIRD AVENUE	STRIP	TROPHY	R	11	25	50	1,250
CAL-STORE PLAZA	900 BROADWAY	SPECIALTY	SPORTS	R	11	75	231	17,325
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	VIDEO	R	11	25	45	1,125

RESIDENTIAL'S OTHER RETAIL STORES TOTAL -----  
 132,279  
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 EMPLOYMENT AND RESIDENTIAL'S OTHER RETAIL STORES TOTAL -----  
 138,103  
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	1000 BROADWAY	STRIP	PRINTING	R	12	20	50	1,000
	1300 BROADWAY	CONVENIENCE	DRY CLEANERS	E	12	50	40	2,000

EMPLOYMENT'S OTHER OUTLETS TOTAL -----  
 3,000  
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PALOMAR SQUARE	1300 BROADWAY	STRIP	BEAUTY	R	12	20	50	1,000
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	HAIR	R	12	30	45	1,350
VONS CENTER	1300 THIRD	NEIGHBORHOOD	HAIR	R	12	18	67	1,206
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	BEAUTY	R	12	30	40	1,200
	1300 THIRD AVENUE	STRIP	PRINTING	R	12	30	40	1,200
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	HEALTH SPA	R	12	50	40	2,000
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLEANERS	R	12	29	67	1,943
	900 BROADWAY	STRIP	PEST CONTROL	R	12	40	50	2,000
	1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	30	30	900
	1000 BROADWAY	FREESTANDING	UPHOLSTERY	R	12	40	30	1,200
	1000 THIRD	SPECIALTY	PRINT	R	12	20	40	800
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	NAILS	R	12	25	45	1,125
	1100 THIRD AVENUE	FREESTANDING	TV REPAIR	R	12	50	45	2,250
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	CLEANERS	R	12	24	60	1,440
	1000 THIRD AVENUE	FREESTANDING	PLUMBING	R	12	50	40	2,000
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	HAIR	R	12	15	60	900
	1000 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	60	15	900
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	BOUTIQUE	R	12	25	60	1,500
	1000 BROADWAY	MIXED USE	LAUNDRY	R	12	42	46	1,932

900 BROADWAY	STRIP	AUTO BODY	R	12	20	60	1,200
1100 THIRD AVENUE	FREESTANDING	BARBER	R	12	20	40	800
1100 BROADWAY	STRIP	ARCADE	R	12	60	64	3,840
1100 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	30	120	3,600
1300 THIRD	NEIGHBORHOOD	LAUNDRY	R	12	20	100	2,000
1300 THIRD AVENUE	STRIP	INTERIOR DESIGN	R	12	25	50	1,250
1000 THIRD AVENUE	STRIP	HAIR	R	12	30	40	1,200
1300 THIRD AVENUE	STRIP	SHOE REPAIR	R	12	25	50	1,250
1000 THIRD AVENUE	STRIP	CLEANERS	R	12	30	40	1,200
1000 THIRD AVENUE	STRIP	PRINTING	R	12	40	45	1,800
1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
1000 THIRD AVENUE	STRIP	HAIR	R	12	25	45	1,125
1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	100	5,000
1200 BROADWAY	SPECIALTY	HAIR	R	12	20	40	800
1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	40	70	2,800
1300 THIRD AVENUE	STRIP	BEAUTY	R	12	25	50	1,250
1300 THIRD	NEIGHBORHOOD	TAILOR	R	12	18	67	1,206
1300 THIRD AVENUE	STRIP	LOCKSMITH	R	12	25	50	1,250
900 BROADWAY	STRIP	BEAUTY SALON	R	12	40	50	2,000
MAIN ST./BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
SE CORNER THIRD/OXFORD	STRIP	TV REPAIR	R	12	30	45	1,350
1200 THIRD AVENUE	STRIP	HAIR	R	12	30	35	1,050
900 BROADWAY	STRIP	MESSAGE	R	12	20	60	1,200
1200 THIRD AVENUE	STRIP	PRINTING	R	12	40	50	2,000
1200 BROADWAY	SPECIALTY	NAILS	R	12	14	50	700
900 THIRD AVENUE	STRIP	DRIVING SCHOOL	R	12	20	20	400
1300 THIRD	NEIGHBORHOOD	HAIR	R	12	30	100	3,000
1700 BROADWAY	MIXED USE	AUTO REPAIR	R	12	42	40	1,680
900 BROADWAY	FREESTANDING	UPHOLSTERY	R	12	20	40	800
1000 BROADWAY	FREESTANDING	AUTO BODY	R	12	50	120	6,000
1000 THIRD AVENUE	STRIP	LAUNDRY	R	12	30	40	1,200
1300 THIRD AVENUE	STRIP	LAUNDROMAT	R	12	40	90	3,600
1300 THIRD	NEIGHBORHOOD	HAIR	R	12	25	60	1,500
1300 THIRD AVENUE	STRIP	CLEANERS	R	12	20	50	1,000
SE CORNER THIRD/OXFORD	STRIP	HAIR	R	12	25	45	1,125

Address	Property Type	Category	Code	Count	Value
1000 BROADWAY	FREESTANDING	AUTO REPAIR	R	40	2,400
PAC. COMMERCE BANK PLAZA NW CORNER THIRD/OXFORD	STRIP	KARATE	R	25	1,500
1100 BROADWAY	FREESTANDING	AUTO REPAIR	R	40	2,400
1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	50	3,000
1200 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	30	1,800
1300 THIRD AVENUE	CONVENIENCE	HAIR	R	20	800
PLAZA DEL REY	STRIP	HAIR	R	25	1,125
SE CORNER THIRD/OXFORD	STRIP	LAUNDRY	R	70	3,150
NAPLES PLAZA	STRIP	TRAVEL	R	25	1,125
PLAZA DEL REY	STRIP	HAIR	R	30	1,200
1000 THIRD AVENUE	STRIP	HAIR	R	40	800
ARCH PLAZA	SPECIALTY	HAIR	R	15	780
TROLLEY SQUARE	STRIP	TRANSMISSION	R	20	1,400
700 PALOMAR STREET	STRIP	AUTO REPAIR	R	50	4,000
1300 THIRD AVENUE	FREESTANDING				
THIRD/TREMONT					
RESIDENT'S OTHER OUTLETS TOTAL					117,502
RESIDENT AND EMPLOYMENT'S OTHER OUTLETS TOTAL					120,502
MONTGOMERY TOTAL					1,614,453
MONTGOMERY RESIDENTIAL TOTAL					1,456,312
MONTGOMERY EMPLOYMENT TOTAL					89,390



**APPENDIX E**  
**Preliminary Drainage Analysis**



Vaughn F. Johnson  
land development consultant

(619) 670-1318  
P.O. Box 1612  
Spring Valley, CA 92078

January 5, 1989

Phil Hinshaw  
A.D. Hinshaw and Assoc.  
6136 Mission Gorge Rd. Ste. 111  
San Diego, California 92120

Re: Preliminary Drainage Analysis for the proposed "Palomar  
Trolley Center"

Dear Phil,

At your request I have performed a "Preliminary Drainage Analysis" for the proposed "Palomar Trolley Center". The Trolley Center is located on Palomar St. approximately 400' east of Industrial Ave., in the city of Chula Vista.

The site is relatively flat, sloping east to southwest at a grade of less than 2%. It is my understanding that the property is currently being used for agricultural farming. There is an existing unimproved drainage swale along the southerly most property line and an existing 48" RCP along the westerly property line. The drainage swale and 48" pipe join at the southwesterly most corner of the property, flowing into a 60" CMP. (See Preliminary Site & Grading Plan Dated 2-23-88) The 60" pipe flows into a large sump 500' or so to the south of the project. That sump is the concentration point for "Southwest Drainage Basin", as shown on sheet 27-83 of the drainage study maps prepared by Lawrence, Fogg, Florer & Smith. The " $Q_{50}$ " at that point is 231cfs (cubic feet per second). The sump is drained by two pipes, a 66" CMP @ 0.55% and a 36" RCP @ 1.71%. Preliminary calculations indicate the existing facilities to be inadequate for the " $Q$ " given in the "L,F,F&S" study.

The attached preliminary hydrology calculations reflect an increase of 13cfs for " $Q_{10}$ " & 17cfs for " $Q_{50}$ ". As noted above the existing pipes are undersized for the existing " $Q_{50}$ " so any increase in drainage quantity will only worsen that condition. It should also be noted that even though the existing facility is undersized, lower flows (" $Q_{10}$ ") can pass with no problem & higher flows will pond for a given period before passing.

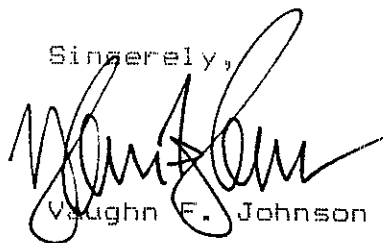
Reminder, these assumptions are based on exist records on file with the city of Chula Vista and a drainage study prepared more than 20 years ago. Because of the more recent development adjacent to this site I recommend that a more thorough hydrology study be done to help determine the downstream effects of the proposed project.

I hope this information will help you in the completion of

(cont.)

your E.I.R.. Should you have any questions or need further assistance, please call (670-1318). Thank you for the opportunity to serve you.

Sincerely,

A handwritten signature in black ink, appearing to read "Vaughn F. Johnson", written in a cursive style.

Vaughn F. Johnson

Jan, 5, 1989

89-100

## Palomar Trolley Center Preliminary Drainage Study

### References

1. City of Chula Vista Drainage Design Manual
2. Brater & King's Handbook of Hydraulics
3. Lawrence, Fogg, Florer & Smith Drainage Study prepared for the City of Chula Vista (1965)  
"Southwest Basin," ~ B-13" Drainage Area Map No 27-83
4. Drainage Basin Less than 200 acres,  $Q_{50} = C.I.A.$
6. City of Chula Vista Drawing No 85-13, Sht 5 of 5
- 7 M.T.D.B. Job No 13449, Drawing No C-203-Rev B
- 8

### Hydrology

#### Existing

$$C = 0.35 \text{ (Farmland)} \quad A = 12.23 \text{ acres}, \quad T_c = 60 \left( \frac{11.9 \cdot L^3}{H} \right)^{0.385}$$
$$= 60 \left( \frac{11.9 \cdot 2652^3}{12} \right)^{0.385}, \quad = 12.9 + 3 = 16 \text{ min. } I_{50} = 2.5 \text{ in}$$

$$I_{10} = 2.0 \text{ in}, \quad Q_{10} = 0.35 \cdot 2.0 \cdot 12.23 = 8.6 \text{ Say } \underline{9 \text{ cfs}}$$

$$Q_{50} = 0.35 \cdot 2.5 \cdot 12.23 = 10.7 \text{ Say } \underline{11 \text{ cfs}}$$

#### Proposed Development

$$C = 0.90 \text{ (paved surface)} \quad A = 12.23 \text{ acres} \quad I_{10} = 2.0$$

$$I_{50} = 2.5, \quad Q_{10} = 0.90 \cdot 2.0 \cdot 12.23 = 22 \quad Q_{10} = \underline{22 \text{ cfs}}$$

$$Q_{50} = 0.90 \cdot 2.5 \cdot 12.23 = 27.5 \text{ Say } \underline{28 \text{ cfs}}$$

$$\text{Net Runoff impact } Q_{10} = \underline{13 \text{ cfs}}$$

$$\text{Net Runoff impact } Q_{50} = \underline{17 \text{ cfs}}$$

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ADDENDUM TO THE FINAL  
FOCUSED ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M  
SCH# 89032915

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

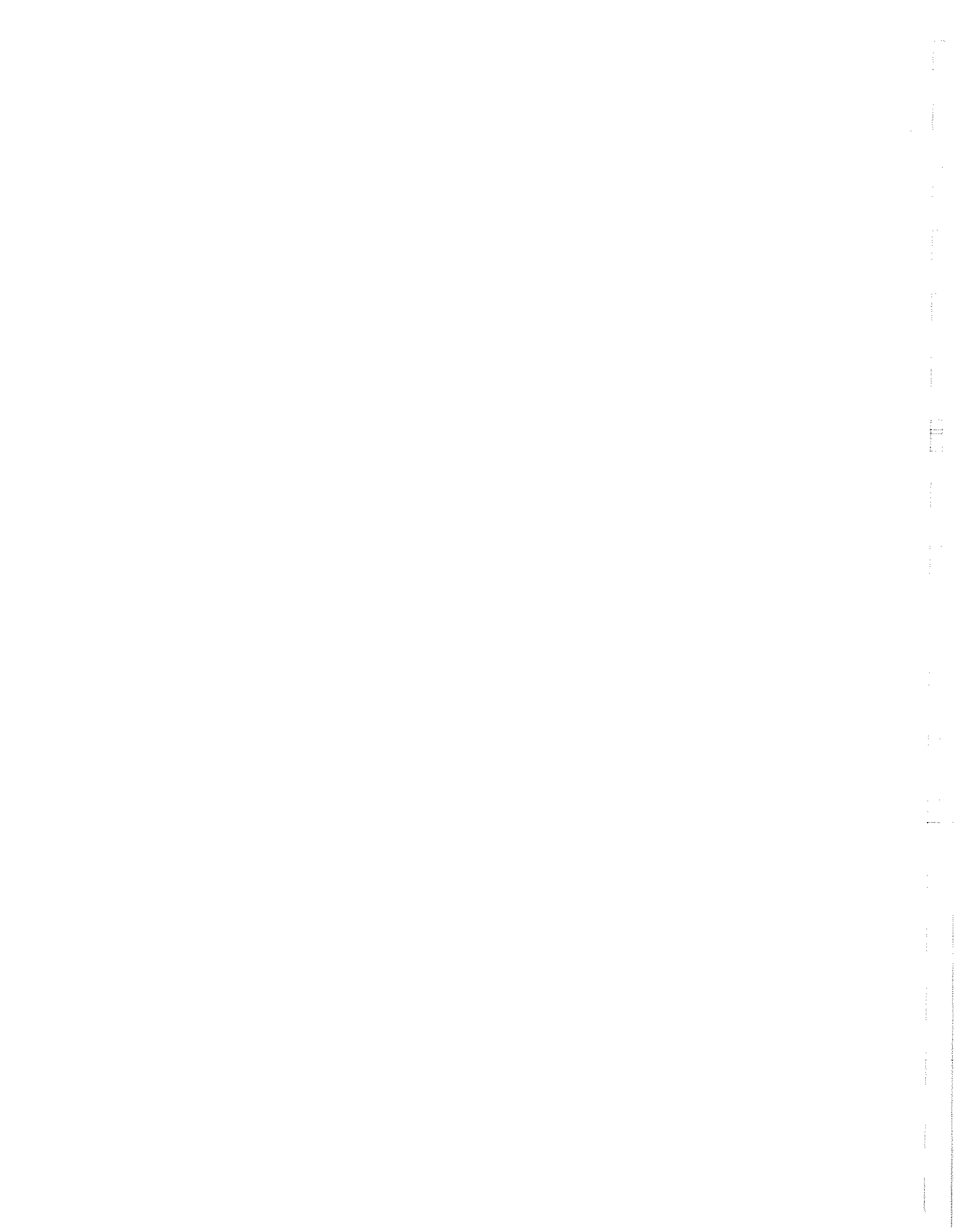
January 1990





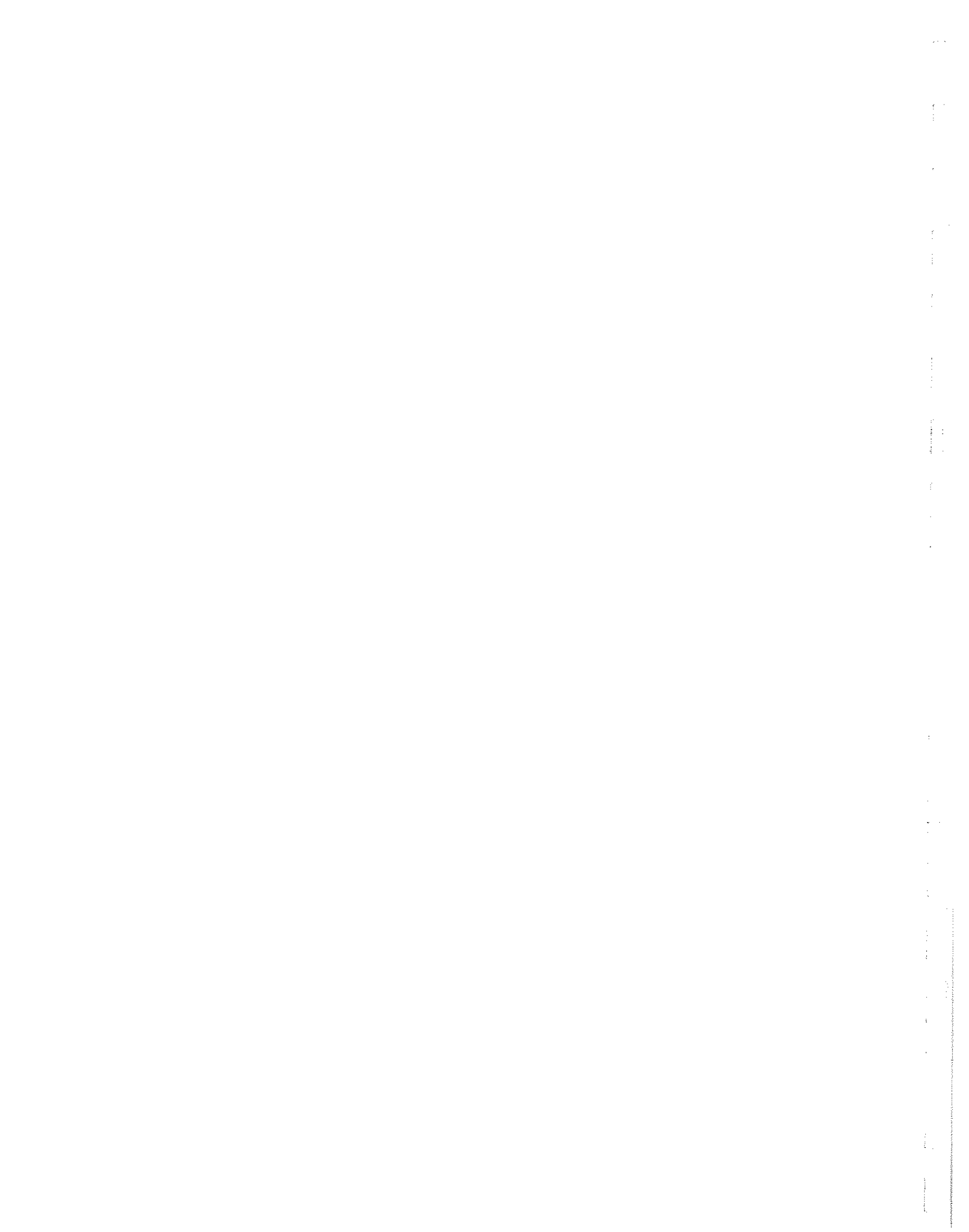
## TABLE OF CONTENTS

<u>SECTION</u>	<u>ADDENDUM PAGE</u>
I. INTRODUCTION	I
II. MONTGOMERY PLANNING COMMITTEE COMMENTS AND RESPONSES	1
III. REPLACEMENT PAGES	8
IV. REVISED CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS ANALYSIS	9
V. REVISED APPENDIX D - ECONOMIC IMPACT ANALYSIS FOR THE PALOMAR TROLLEY CENTER	10
VI. CONSULTANT IDENTIFICATION	12



# **SECTION I**

## **Introduction**



## SECTION I INTRODUCTION

This document is an addendum to the Final Focused Environmental Impact Report (FEIR) For The Palomar Trolley Center EIR-89-4M, and was prepared to address the concerns of the Montgomery Planning Committee (MPC) that were raised subsequent to the certification of the Draft Environmental Impact Report (DEIR) by the City of Chula Vista Planning Commission on July 12, 1989.

The MPC did not publicly review the DEIR during the 45-day public review period from March 29, 1989 to May 12, 1989. Consequently, no comments were received from the committee to be incorporated into the FEIR. The MPC members received the DEIR and FEIR in July, 1989, and publicly reviewed the FEIR at their meetings on July 19, and August 2, 1989. The committee's comments on the FEIR, and the required responses, are included in Section II of this addendum.

Some of the MPC's comments on the FEIR have warranted revisions to portions of text and tables of the document. Also, it was discovered that two revisions that should have been made to the DEIR following the public review period, at the direction of the Planning Department, were not included in the FEIR. These revisions are provided on "replacement pages" which constitute Section III of this addendum.

The City Planning Department directed that an updated economic study be prepared in response to concerns expressed by the MPC and the project applicant. These concerns are detailed in Section V of this addendum. The new study was completed in December, 1989. It surveyed potentially impacted retail centers, strip commercial, and retail uses operating under conditional use permits in limited industrial zones located within the Montgomery Specific Plan area, and adjacent areas. Also, economic forecasts for 1991 are used instead of 1993 forecasts. This revised Economic Impact Analysis, is included in Section V of this addendum.

Since the Economic Impact Analysis technical report was revised, it was also necessary to revise Chapter 3.2 - Community Social Factors of the FEIR, to coincide with the updated data. However, since the MPC had also expressed concern over the complexity and readability of Chapter 3.2 of the FEIR, the City's Planning Department directed that the revised Chapter 3.2 should be written in a more condensed format. The revised Chapter 3.2, presented in Section IV of this addendum, highlights the key points of the study, while excluding most of the tables, figures, and base data that were in the previous format, since they are already contained in the technical report in the Appendix.

The replacement pages, revised Chapter 3.2, and revised Appendix D are printed on blue paper to distinguish them separately from the explanatory portions of this addendum. These blue pages supersede their corresponding pages and portions of the FEIR. This addendum is intended to be read as an attachment to the FEIR.



## **SECTION II**

# **Montgomery Planning Committee Comments and Responses**





**SECTION II**  
**MONTGOMERY PLANNING COMMITTEE COMMENTS**

The following are comments on the Final Environmental Impact Report (FEIR) made by the Montgomery Planning Committee and the required responses. Some of the comments warranted revisions to the document. Such revisions are noted in the corresponding response. Some comments were made on specific elements of the previous economic impact analysis of the FEIR (addresses, vacancies, etc.) that no longer apply to the revised study and new study methodology. They no longer apply because the revised study uses a completely new market area survey. These comments are, therefore, not included.

1. In the Comments And Responses section of the Final Environmental Impact Report (FEIR), the page entitled "Roger Daoust's Letter Attachment A" is actually a copy of page 29 of the FEIR edited as per Roger Daoust's letter with a number of responses listed on the reverse side. The requested corrections to tables are not included in the attachment.

Response #1: The page entitled "Roger Daoust's Letter Attachment A" is a photocopy of page 29 from the EIR included by the Engineering Department as an attachment with Roger Daoust's letter to show the text requested to be deleted, (see comment #2 of Roger Daoust's letter). This attachment is part of the Engineering Department's comment letter, not a response. Since the inclusion of the photocopy attachment has caused some confusion, it is replaced with a copy that states: "this is photocopy of page 29 of the EIR that was sent by the Engineering Department to show the text requested to be deleted as per comment #2 of Roger Daoust's letter." The replacement page is included in Section III of this addendum.

2. In reference to the FEIR comment #1 and response, Table 3.1.3 (page 21) referred to in Roger Daoust's letter, the entire table is suspect. The staff member at the table Wednesday evening (August 2, 1989 Montgomery Planning Committee Meeting) referred to differences in road widths which are not reflected in the edited table. There is no explanation either on page 21, nor in "Letter Attachment A".

Response #2: The requested revisions to Table 3.1.3 were completed as per comment #1, but the table was revised a second time at the direction of the Engineering Department at a subsequent meeting on June 7, 1989. Mehran Sepehri (Engineering Staff, Traffic) stated that the "X-Section" (cross section) width for "collector" standards was incorrectly listed in the table as 64/84, and should be 74/94. At the time the Draft EIR was prepared, 64/84 was the correct cross section width for collectors. Subsequent to that time the City adopted a new General Plan. The Circulation Element adopted as part of the Plan amended the collector standard cross section width to 74/94. Mehran stated that this was an oversight on the part of the Engineering Department when the

table was revised in the 6/7/89 meeting. With the exception of the "X-Section" width for "collector" standards, the table is consistent with the Engineering Department's information on roadway standards for the City.

According to the Engineering Department, the cross section width error has no bearing on the results of the traffic analysis. The cross section widths listed in Table 3.1.3 are the standards for right-of-way widths and pavement widths for streets within the City of Chula Vista (e.g., 74/94 = 74' of pavement within a 94' right of way). Since the error did not affect the designation of street classifications for the streets analyzed in the study, it has no bearing on the results of the traffic analysis. The error, however, has been corrected. The corrected table is included on a replacement page in Section III of this addendum.

3. In reference to the FEIR comment #5 and response, Section 3.1.3 mitigation Measure #8 on Page 31 is not so corrected; it is merely deleted.

Response #3: Mitigation Measure #8 (3.1.3.8) for traffic impacts was revised as per comment #5, but was subsequently deleted at the request of the Engineering Department (6/7/89 meeting). The wording regarding the cul-de-sac as per comment #5 was then inserted on page 27 (2nd sentence of paragraph 4). The Engineering staff requested this change so that the cul-de-sac would be part of the project, and not a mitigation measure.

4. The FEIR response #7 addresses Roger Daoust's Letter and discusses the "Jayken Way" access. Excerpts of text from a variety of locations in the FEIR indicates a reduction of traffic to the Broadway/Palomar intersection from LOS C to LOS B. Concurrent escalation on Jayken Way and Anita is ignored.

Response #4: An additional project alternative which discusses a Jayken Way access was requested by the Engineering Department in Comment #7 of the FEIR. Response #7 of the FEIR indicates that: (1) the requested alternative has been added to the EIR; (2) the pages where text was added; and (3) a copy of the text that was added to the EIR. The escalation of traffic on Jayken Way and Anita Street is indicated in the first and third paragraph of the added text.

5. The FEIR Response #9 seems reversed. Isn't the train traffic pre-emptive rather than pre-empted? The trains are the pre-emptors not the pre-emptees!

Response #5: The signals are pre-empted by train traffic. This error is corrected by replacing the word "pre-empted" with "pre-emptive" on the replacement page included in Section III of this addendum.

6. Page I-4 of the FEIR does not make sense. The first sentence of the third paragraph states: "Broadway north of Palomar Street will deteriorate to Level Of Service E under existing plus project plus approved project conditions." This sentence does not make sense.

Response #6: The sentence "Broadway north of Palomar Street will deteriorate to Level Of Service E under existing plus project plus approved project conditions" means that the Level Of Service (LOS) on the segment of Broadway north of Palomar Street will deteriorate to LOS E under conditions that include existing traffic levels, plus traffic generated by the project and the traffic generated by nearby approved projects.

7. In the Executive Summary on page I-4 of the FEIR, mitigation measure #3 in the Transportation/Access summary is removed.

Response #7: Transportation/Access mitigation measure #3, which concerned a traffic signal removal analysis, was removed at the request of the City Traffic Engineering Department at the June 7, 1989 meeting. After further consideration subsequent to the writing of Roger Daoust's letter, the City Traffic Engineering Department felt that the traffic signal removal analysis was an unnecessary requirement because the traffic signal relocation was already a mitigation measure and was going to occur regardless. The City Traffic Engineering Department had already found that the relocation would be of beneficial impact to traffic flow along this section of Palomar Street.

8. In deference to Committee member J. Berlanga's comments (July 19, and August 2, 1989 Montgomery Planning Committee Meetings) - the map on page 3 (Figure 2.1.2) shows the project as much larger than it is shown on other maps throughout the Transportation/Access section and Community Social Factors Section. The map on page 55, for example, shows the project site as being much smaller.

Response #8: The map on page 3 is to scale, within accepted tolerances (+10 percent). The scale 1 inch = 2000 feet is indicated. Maps labeled "No Scale", such as the map on page 55, are not drawn to scale. Features on these maps are, therefore, representative of approximate locations and do not attempt to exhibit size or distance.

9. Figure 2.3.1 "Related Projects" on page 9 of the FEIR is factually inaccurate. The project indicated as the Palomar Commerce Center (#4) is Trolley Center, I think. Also, Palomar Square, referred to in Appendix D, is not indicated.

Response #9: The information for Figure 2.3.1 (page 9) was provided by the City's Planning Department. According to the Negative Declaration (IS-88-72) and map provided by the City, the Palomar Commerce Center is located within the shaded area #4 indicated in Figure 2.3.1. The projects shown in this

figure were the only recently approved projects the City's Planning Department indicated should be included in the report. Palomar Square is not considered by the City to be a "recently approved" project. Recent projects were selected by the Planning Department at the commencement of the Draft EIR in November, 1988, and were projects that were approved or under consideration by design review, or were in plan check, but not constructed.

10. The FEIR Transportation/Access analysis' "Focus" is so tight as to ignore Orange Avenue (and the problems created by the Jack-in-the-Box).

Response #10: The transportation/access analysis does not ignore Orange Avenue. Orange Avenue is included throughout the analysis. Existing, future and cumulative ADT, as well as, traffic distribution are indicated for Orange Avenue (see pages 11, 16, 18, 19, and 20). Orange Avenue is not included in the analysis discussing street segments level of service (LOS) impacts because it is not impacted. The LOS on Orange Avenue will not decrease. The summary of impacts on page 28 discusses the impacts and impacted street segments. After discussing impacts to Palomar Street and Broadway, the FEIR text states that all other segments will operate at acceptable levels, including Orange Avenue.

11. On page 12 of the FEIR the Anita Street description states that this street serves high density residential and industrial uses. We have concern about the residential uses being impacted by the increase of traffic on Anita Street resulting from the Jayken Way access alternative.

Response #11: If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 Average Daily Trips (ADT) west of Jayken Way and 500 ADT east of Jayken Way. Considering that the current ADT (at the time of the study) is 4,200, these represent increases of 4.7 percent and 11.9 percent respectively. These are not considered significant increases. Anita Street is classified as a collector street. Since level of service (LOS) A for a collector street can be achieved at 16,500 ADT or below, it is apparent that Anita Street will continue to operate well within LOS A standards.

12. Orange Avenue is omitted/glossed over in Table 3.1.4 on page 22 of the FEIR.

Response #12: Orange Avenue was not included in Table 3.1.4 because it is not significantly impacted by the project and will continue to operate at acceptable levels of service (LOS). Orange Avenue will operate at LOS A. Table 3.1.3 of the FEIR shows what the expected LOS of a street is, given the street classification and the traffic volume. It indicates that LOS A for a Major road is 22,500 ADT or less. Orange Avenue is classified as a four-lane Major Street, as stated in Paragraph 1 on page 13 of the FEIR. Future traffic levels on

Orange Avenue that would result from the development of the project is shown as 10,100 average daily trips (ADT) on Figures 3.1.4, & 3.1.5 of the FEIR.

13. On page 46 of the FEIR Palomar Commerce Center is cited as being located at 635-675 Naples. But Figure 2.3.1 "Related Projects" on page 9 pictures Palomar Commerce Center (#4) as across Palomar Street from the project site.

Response #13: The City's Negative Declaration for the Palomar Commerce Center states that it is "located on the south side of Oxford, north of Palomar, between Broadway and Industrial," with primary access fronting on Palomar. And the Negative Declaration lists the street address as 687-693 Palomar Street. However, according to the revised economic impact analysis by CIC Research, the actual address is 635-675 Palomar. Thus, the Naples street address has been corrected. Location #4 in Figure 2.3.1 of the FEIR is correct. In spite of all this, the wrong address did not have any bearing on the data used (location, square footage, number of employees, etc.) or the analysis in which it was used and, thus, had no effect whatsoever on the results of the study. The location of the center was correct and it was appropriately included in the study. The wrong address was no more significant than a "typo".

14. The "Focus" of Table 3.2.8 (pages 50-54) of the FEIR spreads to cover entire south Chula Vista. Appendix D, page 18 Demographic Profile divides the market area into concentric circles, 1.5 mile - 10.00 mile radii. The economic impact analysis fails to analyze the projects related to each specific type but seems to lump all of the different types of stores, ie. Analyze new market's impact on similar markets within the appropriate radius from the entire area. This seems to contradict page 18 in Appendix D.

Response #14: The "Focus", of Table 3.2.8 does not cover the entire south Chula Vista area. The area covered is bounded by "L" Street to the north, Main Street to the south, Third Avenue to the East, and Industrial Boulevard to the west. Regardless, this comment no longer applies because the economic study has been completely revised, and the Revised Community Social Factors chapter of the EIR (Section IV of this addendum) no longer contains Table 3.2.8.

The revised economic impact analysis (Section V of this addendum) continues to present demographic information from 1.5 mile to 10.0 mile radii market areas around the proposed site. The economic impact analysis analyzes retail outlets by type (State Board Of Equalization Categories), which are located generally within the Montgomery Specific Plan area.

15. The Community Social Factors analysis in Section 4.3 Reduced Project Alternative (pages 82 and 83) seems to contradict the conclusions of the Community Social Factors analysis indicated

in the Environmental Analysis on page 68, and in the Executive summary on page I-5. The Community Social Factors analysis in Section 4.3, Reduced Project Alternative, indicates that this alternative will have less socio-economic impacts, which could result in physical deterioration of nearby commercial centers, than the proposed project. This indicates to me that the project will cause socio-economic impacts, whereas, it is stated in the Environmental Analysis on page 68, and in the Executive summary on page I-5, "no significant socio-economic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers".

Response #15: Neither the proposed project nor reduced project alternative will cause any socio-economic impacts which would result in the physical deterioration of nearby commercial centers. What is stated in the Community Social Factors analysis in Section 4.3 Reduced Project Alternative of the FEIR is that "Development of the site under this alternative would decrease the potential for socio-economic impacts which could result in the physical deterioration of nearby commercial centers..." and "The potential for impacts from increased competition, especially from fast food restaurants, would be substantially reduced". Since there is a potential for impacts to occur, the issue was analyzed in the EIR. The conclusion of the analysis is that there would be no actual impact.

16. On page 89 "Persons and Organizations Contacted" does not include any planning personnel. Planning data is included in reference documents.

Response #16: This list indicates persons who were cited in text of the EIR. Since no Planning Department personnel were cited in the text, none were listed on page 89 of the FEIR. However, the EIR was prepared for the City of Chula Vista Planning Department, and Planning Department staff directed and reviewed the preparation of the EIR. Therefore, this page is replaced with a version that includes City of Chula Vista Staff. It is included in Section III of this addendum.

17. Committee member Creveling does not agree with the required fire flow of 5,000 gallons per minute indicated in the Initial Study in Appendix A of the FEIR. He feels that it is too much.

Response #17: The Fire Department section of the Initial Study was completed by the City's Fire Marshall, Carol Gove, who determined that a fire flow of 5,000 gpm, along with other fire prevention requirements, would be required for the project.

18. Committee member Creveling feels that the EIR should address the positive economic impacts that the Palomar Trolley Center would have.

Response #18: Although an economic impact study was used for the Community Social Factors Analysis of the EIR, its purpose was to aid in determining whether or not the proposed center would result in the physical deterioration of the surrounding commercial centers. It would not be consistent with the purpose of the study, nor the scope of the EIR, to address the positive economic impacts of the proposed center.

19. The Palomar/I-5 intersection has reached its saturation point. Who will monitor the effects of the proposed center on the intersection?

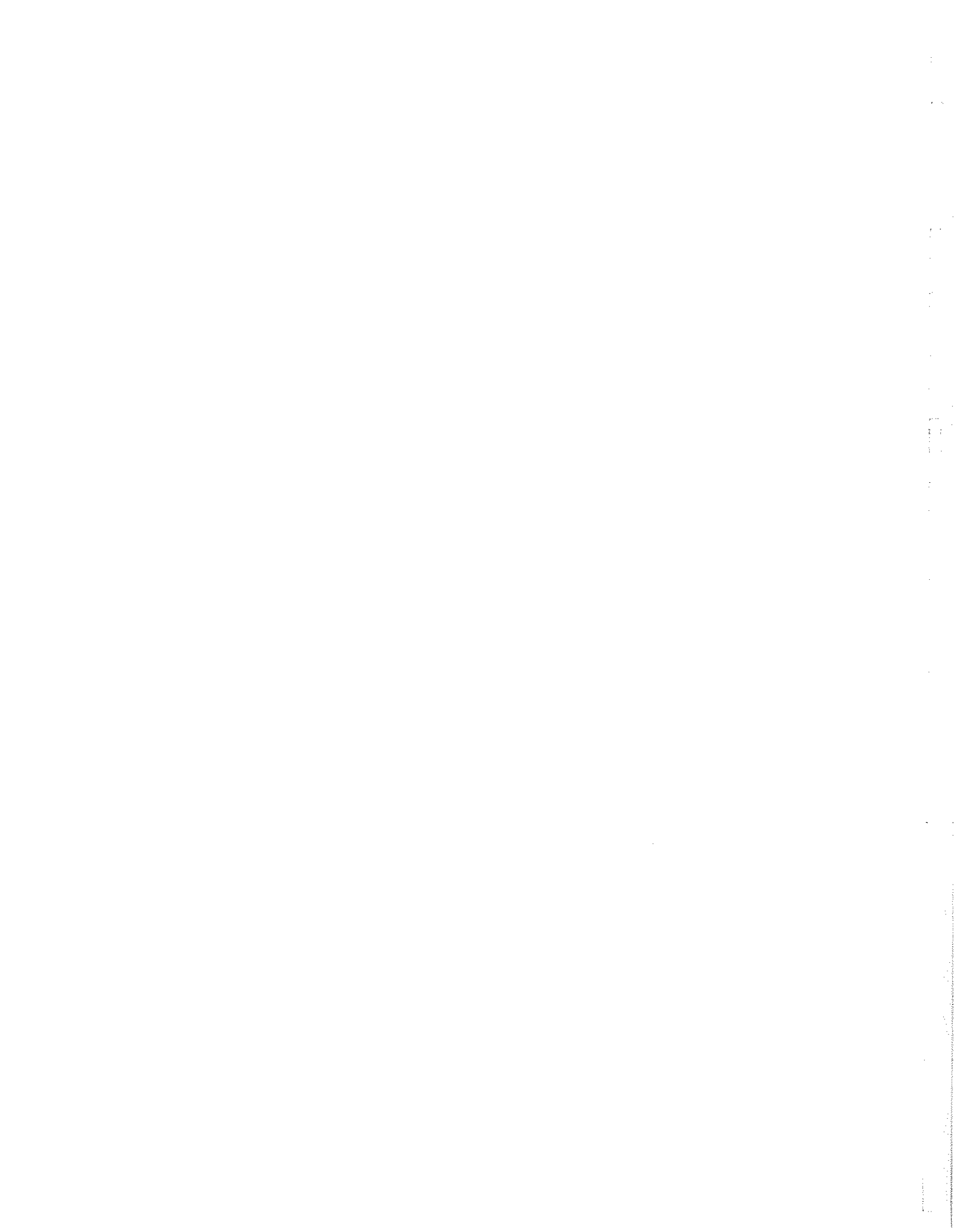
Response #19: The Palomar/I-5 intersection is already scheduled for improvements. The City of Chula Vista and CALTRANS are currently working together on the planning of the project. The effects of Palomar Trolley Center individually on this specific intersection would not be monitored.





**SECTION III**

**Replacement Pages**



### SECTION III REPLACEMENT PAGES

Some of the Montgomery Planning Committee's (MPC) comments on the FEIR warranted revisions to portions of the FEIR text and tables. Also, it was discovered that revisions that should have been made to the DEIR following the public review period (at the direction of the Planning Department) were not included in the FEIR. These revisions have now been completed and are provided in this section as "replacement pages" that supersede the corresponding pages of the FEIR.

The reasons the pages were replaced are as follows:

1. The page entitled "Roger Daoust's Letter Attachment A" of the FEIR is replaced in response to MPC Comment #1. Since the inclusion of the photocopy attachment caused confusion, it is replaced with a copy that states: "This is a photocopy of page 29 of the DEIR attached to a letter sent by the Engineering Department to the Planning Department showing the text requested to be deleted as per comment #2 of Roger Daoust's letter."
2. In response to MPC Comment #5, the page containing Response #9 of the FEIR is replaced with a version that revises the word "pre-empted" with the correct word, "pre-emptive".
3. Figure 2.3.1 on Page 9 of the FEIR did not have a north arrow and did not indicate scale. It is replaced with a version that does.
4. Page 14 of the FEIR is replaced because the columns in Table 3.1.1 were misaligned.
5. Table 3.1.3 on Page 21 of the FEIR is replaced with a version that corrects the "X-Section" (cross section) width for "collector" street standards to 74/94. It was incorrectly listed as 64/84 in the FEIR. This error is further explained in Response #2 in Section II of this addendum. Additionally, the columns of the revised Table 3.1.3 have been realigned so that "X-Section" and "V/C Ratio" are not mistakenly read as one column.
6. Page 81 of the FEIR is replaced because the 2nd sentence of the 5th paragraph had read "... under the proposed C-N zoning." The proposed zoning is C-C. It has been corrected by strike-over and underline to read "... under the proposed ~~C-N~~ C-C zoning."
7. Page 89 of the FEIR is replaced in response to MPC Comment #16 regarding the inclusion of City staff in the references. The replacement page 89 includes City staff in the references.



## Roger Daoust's Letter Attachment A

(Attached Photocopy From Daoust's Letter)

Note: This is a photocopy of page 29 of the DEIR attached to a letter sent by the Engineering Department to the Planning Department showing the text requested to be deleted as per comment #2 of Roger Daoust's letter.

Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS E according to the Roadway Classification Standards contained in the Circulation Element, as indicated in the Willden report. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus,~~ it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

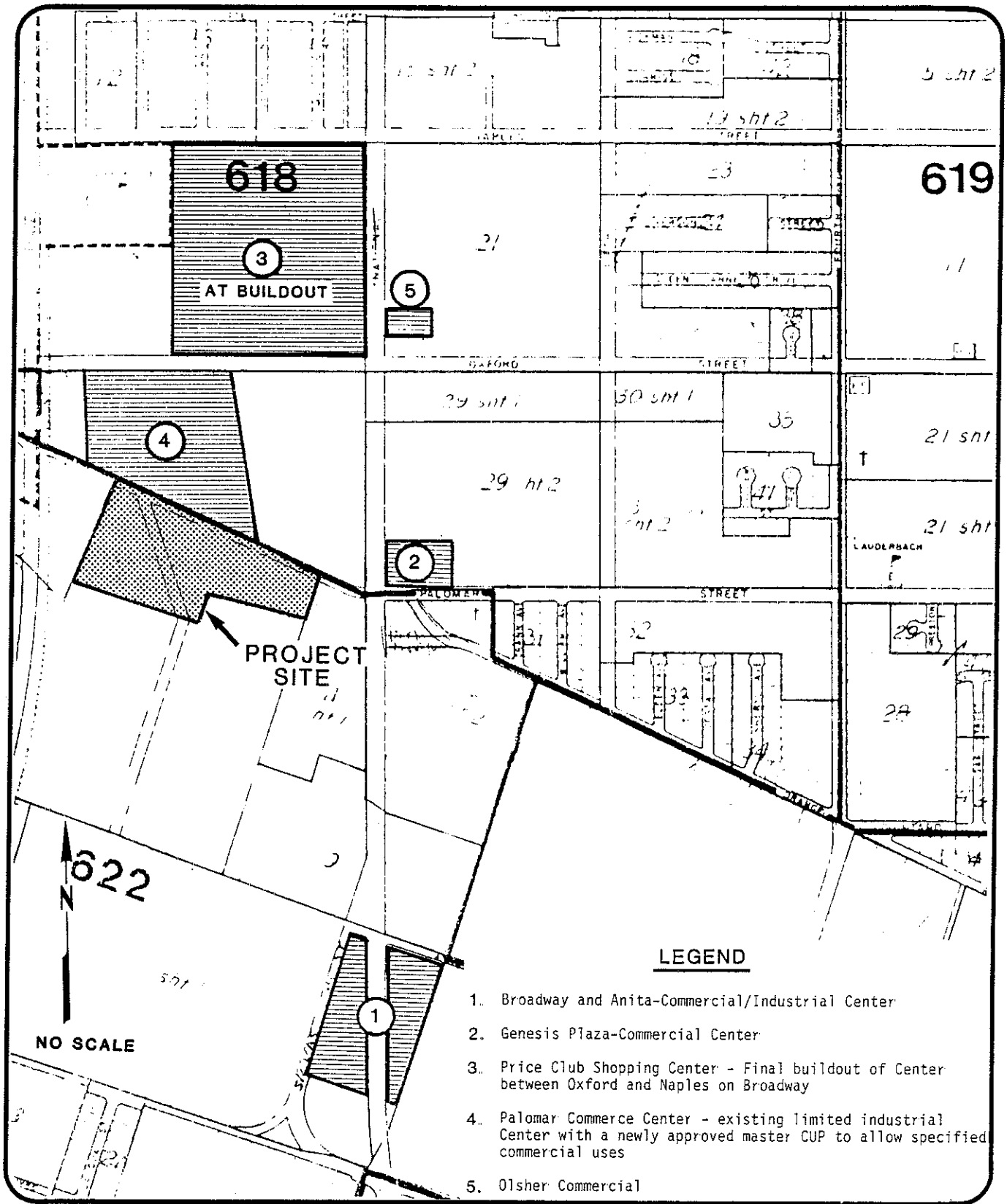
The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by

Response #9

No altering of the at-grade rail crossing is anticipated. The traffic signals in the area currently operate to allow for pre-emptive train traffic, and no changes are anticipated.



SOURCE: City of Chula Vista

Figure 2.3.1

## Related Projects

A. D. HINSHAW ASSOCIATES

Table 3.1.1 indicates the trip generation for the project site assuming development under current light industrial zoning. Table 3.1.2 summarizes the generation of expected trips from the proposed project and recently approved projects identified by the City of Chula Vista.

**TABLE 3.1.1  
TRIP GENERATION  
CURRENT ZONING**

Land Use	Trip		ADT	PM Peak Hour		
	Intensity	Rate		%	In	Out
Light Ind.	12.23 ac	90/ac	1,100	12%	26	106

Source: Willdan Associates

As shown in Table 3.1.2 the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). Nearby approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would be 1,100 ADT, with 132 trips occurring during the PM peak hour (see Table 3.1.2). Therefore, the proposed project would generate an additional 5,148 ADT with 494 PM peak hour trips compared to the current light industrial zoning. Due to the proposed land uses (primarily commercial) the PM peak hour is critical since only a minimal amount of commercial traffic is expected during the AM peak hour. Analyzing the peak hour is important, because this period generally places the highest demand on the surrounding street system.

#### Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks and public buildings. A major element is the interaction between commercial connectors and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site. This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 3.1.2 shows the distribution of trips to and from the proposed project site.

As shown in Figure 3.1.2, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35 and 15 percent north and south along Broadway



Table 3.1.3

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION

AVERAGE DAILY VEHICLE TRIPS

ROAD	X-SECTION	LEVEL OF SERVICE					
		V/C RATIO (.6)	A (.7)	B (.8)	C* (.9)	D (1.0)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500	
Major Road	80/100	22,500	26,300	30,000	33,800	37,500	
Collector	74/94	16,500	19,300	22,000	24,800	27,500	
Modified Collector	52/72	9,000	10,500	12,000	13,500	15,000	
Light Collector	40/60	5,600	6,600	7,500	8,500	9,400	

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.

## 4.0 ALTERNATIVES

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. By analyzing and weighing alternatives, decision-makers can make judgments concerning the advantages and disadvantages of each alternative in relation to the proposed project.

### 4.1 NO PROJECT

This alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition if this alternative were to be adopted. No significant environmental impacts are expected to occur as a result of this alternative.

### 4.2 EXISTING ZONING

This alternative would develop the site in accord with the existing land use and zoning designations. The existing Specific Plan land use designation for the site is Research and Limited Industrial [A-1]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2]. The development is assumed to be a light industrial project with a total gross floor area of 137,500 sq.ft.

#### Transportation/Access

If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT with 132 trips occurring during the P.M. peak hour, therefore generating 5,148 less ADT and 494 less trips during the P.M. peak hour than the proposed project. Under this alternative, the traffic impacts associated with the development of the site would be significantly less.

#### Community Social Factors

The current zoning, Limited Impact Industrial Use (M52), is intended for manufacturing and industrial uses which evidence no or very low nuisance characteristics. The M52 zone permits a range of commercial uses; some of which are also permitted under the proposed ~~C-N~~ C-C zoning. These uses are, however, dissimilar in that they are intended to support, or be secondary to the industrial uses. The project site would not be in direct competition with nearby commercial centers if developed under this alternative. Therefore, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

## 9.0 REFERENCES

### 9.A Reference Documents

1. City of Chula Vista, Montgomery Specific Plan, 9/13/88
2. County of San Diego, Zoning Ordinance, 10/18/78, as amended
3. City of Chula Vista, Zoning Ordinance,
4. Willdan Associates, Traffic Analysis For Palomar Trolley Center, 10/14/88
5. JHK & Associates, Review of Traffic Analysis, 1/5/89
6. City of Chula Vista, Growth Management Threshold Standards, 11/17/87
7. City of Chula Vista, General Plan Digest
8. City of Chula Vista, Initial Study For Palomar Trolley Center (IS-88-63M),
9. City of Chula Vista, General Plan, Parks and Recreation Element, 2/74
10. Johnson, Vaughn, Preliminary Drainage Study For Palomar Trolley Station,
11. Sweetwater Authority, Water Service Availability Letter, 1/10/89
12. CIC Research, Inc., Economic Analysis For Palomar Trolley Center, 1/89

### 9.B Persons and Organizations Contacted

#### Cited in Text

1. Mr. Jim Dyer, Captain, City of Chula Vista Fire Department, (619)691-5055
2. Mr. Keith Hawkins, Captain, City of Chula Vista Police Department, (619)691-5184
3. Mr. Jim Smyth, Senior Civil Engineer, Sweetwater Authority, (619)420-1413
4. Mr. Roger Daoust, Senior Civil Engineer, City of Chula Vista Engineering Department, (619)691-5021
5. Mr. Meharan Sepehri, Associate Traffic Engineer, City of Chula Vista, (619)691-5026

#### Others

6. Mr. Daniel Pass, Principal Planner, City of Chula Vista Planning Department, (619)691-5101
7. Mr. Douglas Reid, Environmental Review Coordinator, City of Chula Vista Planning Department, (619)691-5101
8. Ms. Barbara Reid, Assistant Planner, City of Chula Vista Planning Department, (619)691-5101
9. Mr. Hal Rosenburg, City Engineer, City of Chula Vista, (619)691-5101
10. Ms. Julie Schilling, Assistant Planner (former), City of Chula Vista Planning Department
11. Mr. Steve Thomas, Senior Civil Engineer, City of Chula Vista, (619)691-5021



## **SECTION IV**

### **Revised Chapter 3.2– Community Social Factors Analysis**



**SECTION IV**  
**REVISED CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS**

Since the Economic Impact Analysis technical report was revised, it was also necessary to revise Chapter 3.2 - Community Social Factors, to coincide with the updated data. However, since the MPC had expressed concern over the complexity and readability of Chapter 3.2 of the FEIR, the City's Planning Department directed that the revised Chapter 3.2 should be simplified and made easier to read than the Chapter 3.2 contained in the FEIR.

The revised Chapter 3.2, presented in this section, highlights the key points of the study, while excluding most of the tables, figures, and base data that were in the Chapter 3.2 contained in the FEIR, since they are already contained in the technical report in the Appendix.

The previous version of Chapter 3.2 constituted 40 pages of the FEIR (pages 32 - 71). The revised version of Chapter 3.2 contains only 10 pages. Although there is not a page-for-page replacement, the revised Chapter 3.2 supersedes the entire previous Chapter 3.2 of the FEIR, obviating the remaining 30 pages of Chapter 3.2 of the FEIR (pages 42 - 71). Pages 42 - 71 of the FEIR are, therefore, replaced with a "blank" page as indicated on page 42 of the revised Chapter 3.2 in this section.





## 3.2 COMMUNITY SOCIAL FACTORS

The California Environmental Quality Act (CEQA) provides for the analysis of economic and social impacts as they relate to physical changes in the environment. CEQA Guidelines establish that the economic or social effects of a project shall not be treated as significant effects on the environment, but shall be analyzed to trace the chain of cause and effect between the economic or social effects of a project and the physical changes to the environment resulting from them. The focus of the analysis shall be on the physical changes (CEQA Guidelines, Section 15131).

An Economic Impact Analysis for the Palomar Trolley Center was prepared by CIC Research, Inc. to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the proposed project. The study is not intended to represent a feasibility analysis for the subject development.

Of primary concern are retail centers located along Broadway and Third Avenue; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of the analysis (see Figure 3.2.1).

This section presents the findings of the socioeconomic analysis. The complete Economic Impact Analysis report is contained in Appendix A of this Addendum.

### 3.2.1 PROJECT SETTING

The proposed Palomar Trolley Center is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the Montgomery Specific Plan area of the City of Chula Vista (see Figure 3.2.1). It comprises 12.23 acres with 128,387 square feet (sq.ft.) planned for development, resulting in a coverage ratio of 24 percent. The 128,387 gross sq.ft. of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants (supermarket and drug store) and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 sq.ft. In-line shops would occupy 10,200 sq.ft., and the five pads would provide 15,335 sq.ft. of space (see Figure 3.2.2).

To determine the proposed Palomar Trolley Center's trade area (the area from which the Palomar Trolley Center would draw business) and the market impact area (the area that has the potential to be physically impacted due to economic impacts caused



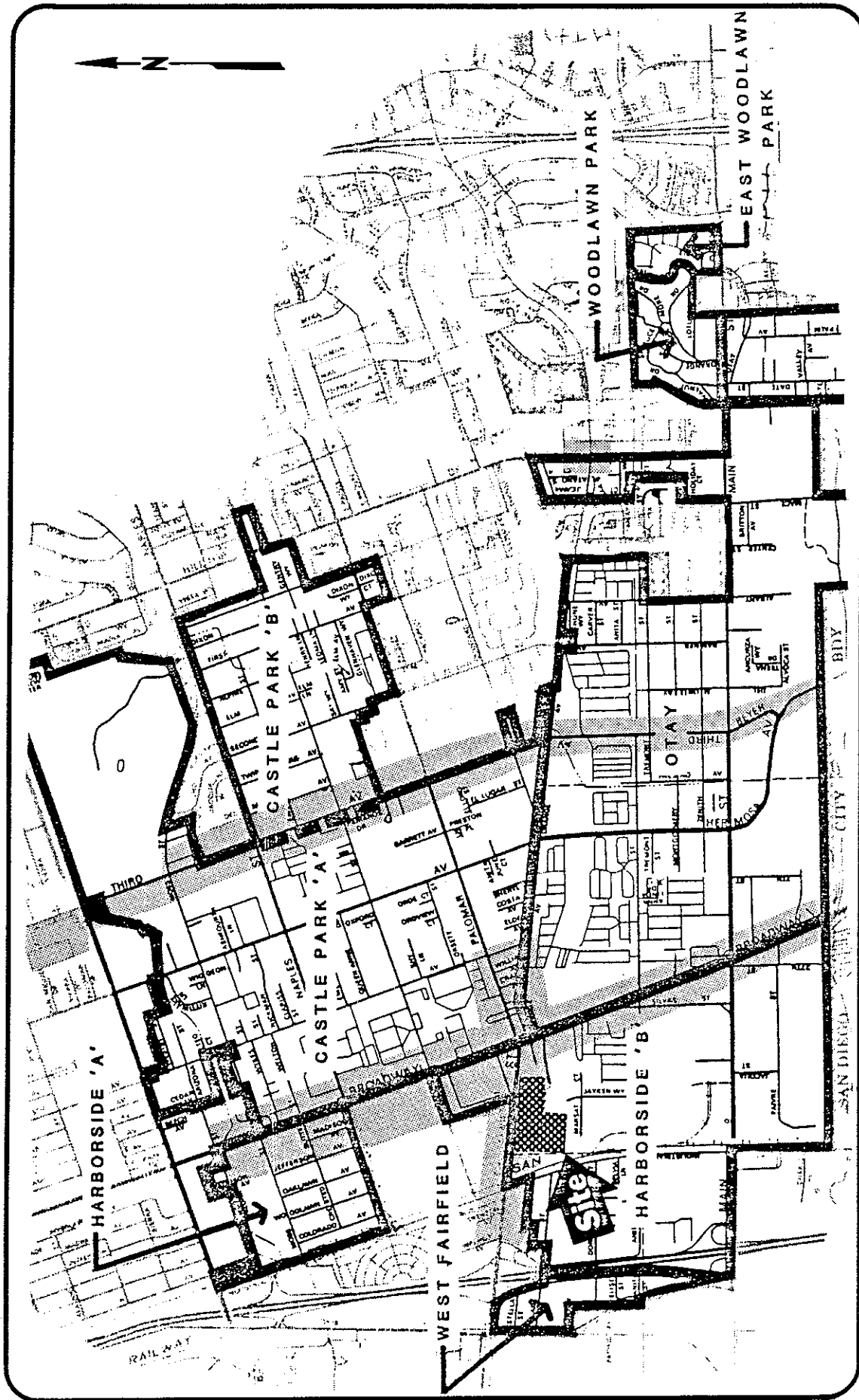



Figure 3.2.1

Field Survey Area

A. D. HINSHAW ASSOCIATES

No Scale

 SURVEY AREA





by development of the Palomar Trolley Center), the following considerations were evaluated:

- . The proposed development plan (site plan);
- . The locations of competitive retail space in relation to the proposed site; and
- . traffic patterns to the site and traffic volumes in the vicinity of the study site (Appendix A, p.12).

The site plan shows that the proposed Palomar Trolley Center would be representative of a large scale neighborhood shopping center or a small scale community shopping center, with a supermarket as the principal anchor. The Palomar Trolley Center trade area is expected to draw support from the residential and employment bases within a 3.0 mile radius trade area (Appendix A, pgs. 12-13).

Based on the location of competitive retail space in relation to the proposed development, it was determined that the market impact area includes Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan area (Appendix A, p.13).

The major traffic routes to the project site include Broadway from the north and Palomar Street from the west via Interstate 5. This indicates that retail developments along these two routes will have higher potential to be impacted both positively and negatively by the proposed development. However, since Interstate 5 travelers have access to a variety of retail developments, it would be difficult to determine which retail areas these travelers would bypass in favor of the proposed project. Therefore, based on confirmed traffic patterns, retail developments on Broadway would represent the primary market impact area (Appendix A, p.13, 15).

The shaded portion indicated on the map in Figure 3.2.1 represents the areas where retail projects were surveyed (see Appendix A, p. 2, for survey methodology). A total of 1,860,716 sq.ft. of retail space was surveyed/identified, of which 1,626,210 sq.ft. are occupied by retail tenants/owners. The difference is accounted for by 91,799 sq.ft. in office uses located within surveyed retail centers and 142,707 sq.ft. of vacant space (7.7% vacancy) (Appendix A, p.22). In addition, seven planned retail developments totalling 94,150 sq.ft. were identified (Appendix A, p. 24).

Table 3.2.1 presents the existing square footage and number of outlets in the market impact area, by retail type. Out of the 1,718,009 sq.ft. of occupied space within the market impact area (1,626,210 sq.ft. retail plus 91,799 sq.ft. office), a total of 414 establishments were identified.

**TABLE 3.2.1**

**POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA**

	Existing Occupied Retail Space		Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	74,055	31	6,000	1	8%	3%
General merchandise	387,950	8	10,200	1	3	13
Drug stores	43,150	4	9,600	1	22	25
Food stores	212,293	39	52,552	1	25	3
Packaged liquor	11,940	5	---	---	0	0
Eating and drinking places	213,342	81	11,320	4	5	5
Furniture, furnishings and appliances	204,860	39	---	---	0	0
Building materials and farm implements	153,498	5	---	---	0	0
Auto supplies/dealers	28,487	14	---	---	0	0
Service stations	14,600	6	---	---	0	0
Other retail stores	<u>128,189</u>	<u>60</u>	<u>32,700</u>	<u>16</u>	<u>26</u>	<u>27</u>
<b>Retail Store Total</b>	<b>1,472,364</b>	<b>292</b>	<b>122,372</b>	<b>24</b>	<b>8%</b>	<b>8%</b>
Business and Personal Retail Service	<u>153,846</u>	<u>84</u>	<u>2,000</u>	<u>1</u>	<u>1</u>	<u>1</u>
<b>Total</b>	<b>1,626,210</b>	<b>376</b>	<b>124,372</b>	<b>25</b>	<b>8%</b>	<b>7%</b>
Office space within retail centers	<u>91,799</u>	<u>38</u>	<u>4,015</u>	<u>1</u>	<u>4</u>	<u>3</u>
<b>Total Space Surveyed</b>	<b>1,718,009</b>	<b>414</b>	<b>128,387</b>	<b>26</b>	<b>7%</b>	<b>6%</b>

Source: CIC Research, Inc., September 1989

Table 3.2.2 presents the estimated retail sales (available expenditures) by retail type, at the estimated time of the project's opening in 1991, within 1.5-mile, 3.0-mile, and 5.0-mile radii areas of the proposed project. As previously stated, the Palomar Trolley Center trade area is expected to draw support from within a 3.0 mile radius trade area. As shown in Table 3.2.2, the total retail sales, or available expenditures, for the 3.0 mile radius trade area is estimated to be \$932,567,000.00 annually (Appendix A, p. 30).

### 3.2.2 IMPACTS

Impacts resulting from the development of the proposed Palomar Trolley Center have been analyzed in terms of market impacts and market capture rates, which have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales (Appendix A, p. 26). In order to estimate potential market impact, a profile of typical tenants which would occupy space at the proposed center was assumed. The estimated square footage and sales distribution (1988 dollars) for a supermarket/drug store concept plan for the proposed center are shown in Table 3.2.3.

The proposed Palomar Trolley Center represents eight percent of the occupied retail square footage and eight percent of the retail outlets in the market impact area (see Table 3.2.1). The proposed office use at the center would represent four percent of the surveyed office square footage within retail centers, and three percent of the office outlets in the market impact area. Assuming the seven identified planned retail developments are fully occupied, the retail portion of Palomar Trolley Center would represent 7.1 percent of the total existing and planned retail square footage (Appendix A, p.25).

As shown in Table 3.2.1, the retail uses categories of Drug Store, Food Store and Other Retail Stores represent a higher proportion of the area's retail square footage than do the other categories. The proposed drug store represents 22 percent of the area's drug store square footage, and 25 percent of the area's drug store outlets. The proposed food store represents 25 percent of the area's food store square footage, but only 3 percent of the total 39 food store outlets. The proposed food store would be one of five major food stores (over 20,000 square feet) and 35 other smaller food outlets (Appendix A, p. 27). The fact that these square footage proportions are so large (22% to 25%) in a retail district with over 1.6 million square feet of occupied retail space suggests that the area has been under-supplied in these categories.

As shown in Table 3.2.2, potential annual gross sales for the Palomar Trolley Center in 1991 are estimated at \$30,133,000. The primary revenue sources are the proposed food store (\$19,516,000 annually) followed by the drug store (\$1,719,000 annually). In terms of market share capture the center represents 17 percent of 1.5 mile area's potential sales, three percent of the 3.0 mile



**TABLE 3.2.2**

MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
(1988 dollars, values in thousands)

	Estimated 1991 Retail Sales Trade Area Around Site		Palomar Trolley Center Projected Sales	Palomar Trolley Center Capture of Market Area Sales			
	1.5 Miles	3.0 Miles		5.0 Miles	3.0 Miles		5.0 Miles
					1.5 Miles	2%	
Apparel	\$ 7,899	\$ 44,439	\$ 67,742	\$874	11%	2%	1%
General Merchandise	27,091	135,216	205,835	1,025	4	1	1
Drug Stores	6,450	31,615	48,115	1,719	27	5	4
Food Stores	39,091	202,142	307,847	19,516	50	10	6
Eating and Drinking Places	17,361	89,531	136,344	1,779	10	2	1
Furniture, Furnishings and Appliances	7,885	47,969	73,182	---	---	---	---
Building Materials and Farm Implements	7,927	42,847	65,285	---	---	---	---
Auto Dealers and Supplies	29,138	158,273	241,174	---	---	---	---
Service Stations	15,570	82,495	125,669	---	---	---	---
Other Retail Stores	<u>14,894</u>	<u>98,041</u>	<u>149,688</u>	<u>5,010</u>	<u>34</u>	<u>5</u>	<u>3</u>
Subtotal	\$173,306	\$932,567	\$1,420,881	\$29,923	17%	3%	2%
Business and Personal Retail Services	---	---	---	210	---	---	---
TOTAL	\$173,306	\$932,567	\$1,420,881	\$30,133	17%	3%	2%

Source: CIC Research, Inc., 1989  
Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
National Decision Systems

**TABLE 3.2.3**  
**SUBJECT PROJECT POTENTIAL SALES**  
**SUPERMARKET/DRUG STORE CENTER**  
**(1988 Dollars)**

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	10,200	100.52	1,025
Drug stores	9,600	174.09	1,719
Food stores supermarket	52,552	371.37	19,516
Eating & drinking places			
fast food	4,300	179.11	770
restaurant	<u>7,020</u>	143.72	<u>1,009</u>
	11,320		1,779
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>30,700</u>	155.33	<u>4,769</u>
	32,700		5,010
Business and personal retail services			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,015	N/A	N/A
<b>Total</b>	<u><u>128,387</u></u>		<u><u>\$30,133</u></u>

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Source: CIC Research, Inc., 1989  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

area, and two percent of 5.0 mile area. Assuming the Palomar Trolley Center and the Ralphs/Target Center and other retail development at Palomar and Broadway create a synergy, the market area would include a region of up to three to five miles from the site. This market area is probably the best representation of regional draw for the site considering the expected tenant types and proximity to the community-size shopping center (Appendix A, p.29).

If all market conditions remained the same, the Palomar Trolley Center's potential capture of area retail expenditures would represent potential increases in the market area retail vacancy rates. An additional three percent increase in the vacancy rate within 3.0 miles of the site (the determined market impact area for the site) could occur, due to the center's potential to capture three percent of the total retail sales in the 3.0-mile market area (Appendix A, p.34).

In reconciling both supply and demand conditions the proportions of total retail square footage and market share capture of the Palomar Trolley Center do not imply a significant impact from development of the center. The Montgomery Specific Plan area's retail district has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district draws customers, while maintaining a reasonably low vacancy rate. The Palomar Trolley Center's market share proportions would have insignificant socioeconomic impacts on the total retail market in the Montgomery Specific Plan area, thus no physical deterioration to existing buildings or shopping centers is anticipated. However, future sales from the center will depend on competition with existing and planned retail outlets in the Montgomery Specific Plan area, as well as other market areas, and not from growth of the local population or households (Appendix A, pgs. 34-35).

In summary, population, housing, and employment growth are not requirements to support absorption of the Palomar Trolley Center. The draw and penetration of the retail district of Montgomery Specific Plan has been increasing faster than the growth in population and housing and expected to continue to do so (Appendix A, p.35). Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments (Appendix A, p.35).

### 3.2.3 MITIGATION

As previously discussed no significant adverse socioeconomic impacts are expected from development or operation of Palomar Trolley Center. Consequently, no physical deterioration can be anticipated to existing buildings or shopping centers. Therefore,

no mitigation measures associated with Community Social Factors are necessary for the development of the project.

#### 3.2.4 ANALYSIS OF SIGNIFICANCE

Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments, which would lead to the physical deterioration of existing buildings or shopping centers. If vacancies persist in other centers, they would relate to specific problems associated with poor design and leasing strategies of the centers. Also a poor location in relation to existing or planned retail centers could also cause vacancies. These factors are an active part of any retail market and represent a continual competitive process whereby the market responds to consumer preferences, and the attempt of developers and businesses to meet consumers' needs (Appendix A, p. 36).

THIS PAGE REPLACES PAGES 42 - 71 OF  
CHAPTER 3.2 - COMMUNITY SOCIAL FACTORS,  
OF THE FINAL ENVIRONMENTAL IMPACT REPORT



## **SECTION V**

### **Revised Appendix D- Economic Impact Analysis for the Palomar Trolley Center**





SECTION V  
REVISED APPENDIX D - ECONOMIC IMPACT  
ANALYSIS FOR THE PALOMAR TROLLEY CENTER

The Montgomery Planning Committee (MPC) expressed several concerns regarding the accuracy of data in the Economic Impact Analysis prepared by CIC Research, which was used for the Community Social Factors analysis in the FEIR. Members of the MPC had conducted a "field-check" of commercial centers within the Montgomery Specific Plan Area and found that their data conflicted with CIC's data. Conflicting data included addresses, location and names of several shopping centers and vacancy rates. Also, the MPC felt that retail uses operating under conditional use permits (CUP) in limited industrial zones, which were left out of the study, should be included.

CIC determined that some of the center addresses, names, and locations in their original report were in error; however, the discrepancies regarding vacancies could not be compared. The MPC had based their vacancy ratios on the number of vacant shops to the total number of shops of each center. CIC based their vacancy ratios on vacant square footage to total square footage obtained from the State Board of Equalization and the leasing agents for each center. This is a standard and accepted method of obtaining data and calculating vacancy ratios. CIC indicated, however, that some new centers had opened during the time period between the completion of their vacancy survey in December, 1988, and the MPC field-check in July, 1989. CIC believes that any discrepancy in vacancies noted by the MPC is attributable to this time lag. The MPC agreed that time lag may have caused the noted discrepancy in vacancies and requested the preparation of a updated economic study.

Regarding the retail uses operating under CUPs in limited industrial zones, CIC indicated that they were not included in the original study because they were not located in centers similar to the proposed project. However, these uses are included in the new study.

In addition to the MPC's comments on the Economic Impact Analysis, the project applicant requested that 1991 economic forecasts be used in the Economic Impact Analysis rather than 1993 forecasts. CIC had used 1993 forecasted data based on their prediction that the project would be fully occupied by 1993. The project applicant, however, believes that full occupancy would occur in 1991 and, thus, requested that 1991 forecasts be used.

In response to the MPC's concerns and at the request of the applicant, the City Planning Department directed that an updated economic study be conducted. Hence, a revised Economic Impact Analysis for the Palomar Trolley Center was completed in December, 1989 by CIC Research, Inc. This study surveyed potentially impacted retail centers, strip retail, and conditional retail uses in limited industrial zones located within the Montgomery Specific Plan area, and adjacent areas. Also, 1991 economic forecasts are used instead of 1993 forecasts.

This revised Economic Impact Analysis is included in this section (on blue pages) and supersedes Appendix D of the FEIR.



ECONOMIC IMPACT ANALYSIS FOR  
PALOMAR TROLLEY CENTER

Prepared for:

City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Prepared by:

CIC Research, Inc.  
1215 Cushman Avenue  
San Diego, CA 92110

December 1989





## EXECUTIVE SUMMARY

This report summarizes the findings of a socioeconomic analysis of potential market impacts from development and operation of Palomar Trolley Center in Chula Vista, California. The primary purpose of this study is to identify any potential for physical deterioration of existing retail facilities resulting from socioeconomic causes related to the subject development. Of primary concern are retail centers located on Broadway in the vicinity of the study site on Palomar Street. However, all potentially impacted centers and strip retail within the Montgomery Specific Plan area have been included in the scope of this analysis.

The major findings of the study include, but are not limited to, the following:

1. The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. It comprises 12.23 acres with 128,387 square feet planned for development, resulting in a coverage ratio of 24 percent. The center is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five freestanding pads, four of which would be restaurants (fast food), and one a financial institution.
2. CIC surveyed approximately 1.9 million square feet of retail space, of which 1,626,210 square feet is occupied by retail tenants owners and 142,707 square feet of vacant space (7.7% vacancy). Also 91,799 square feet of office uses located within surveyed retail centers were surveyed. Seven planned retail developments were identified consisting of 94,150 square feet.

3. Within 1.5 miles of the subject site the population is projected to grow at .1 percent per year from 30,258 in 1988 to 30,350 in 1991. The 3.0-mile market area is projected to grow at 1.6 percent per year from 164,919 to 172,982 during the same period. Also, housing unit projections from 1988 to 1991 for the 1.5-mile area represent the slowest growth (0.1% annually) compared to a projected 1.7 percent annually for the 3.0-mile area.
4. Household incomes (1988) within the site's trading area are relatively low. Average household income within 1.5 miles of the site is \$20,686; within 3.0 miles of the site it is \$28,186. These income levels compare to an estimate of \$34,753 for San Diego County.
5. A total of 5,212 employees were estimated to work within the defined market area at for-lease industrial projects. These 5,212 employees currently support a major portion of 101,426 square feet of retail space within the market. Demand by these workers will require approximately 1,472 square feet of retail space annually from 1989 to 2010.
6. The retail portion of the proposed study site (124,372 square feet) would represent eight percent of the occupied retail space in the study area. The proposed office use at the study site (4,015) would represent four percent of the surveyed office space within retail centers. Combining the known planned developments (94,150 square feet) with the existing identified retail base results in the subject site representing 7.1 percent of the total existing and proposed retail space.
7. The proposed drug store and food store at the Palomar Trolley Center would represent a higher proportion of retail space and outlets compared to other retail categories identified in the survey. The proposed drug store represents 22 percent of the area retail space, as well as 25 percent of the area retail outlets. The proposed food store also would represent a high proportion (25%) of the area retail space and three percent of the total 39 food store outlets. Although these proportions are high, they deal only with the subject's relative future share of supply in these categories and do not imply a significant impact. A more important determinant of impact is to quantify demand for the location on its context as a major retailing area.
8. In terms of capture of retail sales dollars, the site would represent 17 percent of the available expenditures in the immediate 1.5-mile market area, three percent in the 3.0-mile area and two percent in the 5.0-mile area. By assuming the subject development works in combination with the Ralphs/Target Center and other retail

developments at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. This market area is probably the best representation of regional draw for the study site.

9. The Montgomery Specific Plan's retail market base has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail business present and/or expanding the geographic market area from which the retail district draws customers while maintaining a reasonably low vacancy rate. The draw and penetration of the retail district has been increasing faster than the growth in population and housing, and is expected to continue to do so.
10. Increased competitiveness can be expected to be greatest among the smaller older projects along Broadway, (such as the Small World Village and the center at 1068-1082 Broadway) poorly planned centers, (such as the Naples Center), and some of the industrial/business centers which allow non-conforming uses. The Naples Center at 1111 Broadway, is a prime example of a poorly planned center because it attracted a dysfunctional combination of tenant types originally and more recently has added 6,000 square feet of retail space directly blocking street visibility of the current tenants.
11. If future vacancies in the defined market area do occur, the causes of the eventual losses or impacts would relate to existing problems such as poor design and leasing strategies, and secondary locations in relation to existing or planned retail centers other than the Palomar Trolley Center. These causes are an active part of any retail market and represent a continual natural process whereby the market responds to consumer preferences and the attempt of developers and businesses to meet consumer needs. These choices made by other developers/businesses will not be directly affected by the Palomar Trolley Center project, or be impacted from cumulative effects of the project.
12. In conclusion development of the Palomar Trolley Center would not lead to physical deterioration of existing retail facilities because of the reasons stated above in paragraphs six, eight, nine, ten and eleven.



## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY . . . . .	ii
LIST OF TABLES . . . . .	vii
LIST OF FIGURES . . . . .	viii
INTRODUCTION . . . . .	1
PURPOSE OF THE STUDY . . . . .	1
CLIENT . . . . .	2
METHODOLOGY . . . . .	2
REPORT ORGANIZATION . . . . .	7
SITE DESCRIPTION . . . . .	8
LOCATION AND DIMENSIONS . . . . .	8
DEVELOPMENT PLAN . . . . .	8
LAND USE CHARACTERISTICS . . . . .	8
MARKET AREA DESCRIPTION . . . . .	12
MARKET AREA DETERMINANTS . . . . .	12
TRAFFIC PATTERNS AND VOLUMES . . . . .	13
DEMOGRAPHIC PROFILE . . . . .	16
RETAIL EXPENDITURE POTENTIAL . . . . .	16
EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL . . . . .	19
IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESS/FACILITIES . . . . .	21





TABLE OF CONTENTS  
(continued)

	<u>Page</u>
ANALYSIS OF EXISTING RETAIL BASE . . . . .	21
PLANNED RETAIL DEVELOPMENTS . . . . .	24
STUDY SITE SALES ESTIMATE . . . . .	24
MARKET IMPACT . . . . .	26
EXISTING COMPETITIVE CONDITIONS . . . . .	31
MARKET IMPACT CONCLUSIONS . . . . .	34
APPENDIX A . . . . .	38



LIST OF TABLES

<u>Tables</u>		<u>Page</u>
1	RETAIL EXPENDITURE POTENTIAL 1988 . . . . .	17
2	RETAIL EXPENDITURE POTENTIAL 1991 . . . . .	18
3	ESTIMATED SQUARE FOOTAGE OF RETAIL SPACE BY TYPE OF BUSINESS . . . . .	23
4	SUBJECT PROJECT POTENTIAL SALES SUPERMARKET/DRUG STORE CENTER . . . . .	25
5	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA . . . . .	27
6	MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE . . . . .	30
A-1	AVERAGE DAILY TRAFFIC VOLUMES . . . . .	39
A-2	MARKET AREA POPULATION AND HOUSING ESTIMATES . . . . .	40
A-3	MARKET AREA HOUSEHOLD INCOME ESTIMATION . . . . .	41
A-4	MARKET AREA EMPLOYMENT BASE . . . . .	43
A-5	MARKET AREA INDUSTRIAL EMPLOYMENT BASE AND RETAIL SUPPORT PROJECTIONS . . . . .	44
A-6	EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS . . . . .	45
A-7	PLANNED OR UNDER CONSTRUCTION RETAIL DEVELOPMENTS . . . . .	54
A-8	MONTGOMERY SPECIFIC PLAN RETAIL SPACE . . . . .	56



LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	MONTGOMERY SPECIFIC PLAN FIELD SURVEY . . . . .	4
2	SITE LOCATION WITHIN CHULA VISTA . . . . .	9
3	SUBJECT SITE FOOTPRINT . . . . .	10
4	TRAFFIC DISTRIBUTION FOR PROPOSED PROJECT . . . . .	14
A-1	MARKET AREA BOUNDARIES . . . . .	42
A-2	LOCATION OF EXISTING MAJOR RETAIL CENTERS . . . . .	53



## INTRODUCTION

This report represents the findings of a socioeconomic analysis of the possible market impacts from planned development of Palomar Trolley Center. The study was prepared as an update to an original study conducted in January of 1988 and included in draft and final Environmental Impacts Reports and candidate CEQA findings for Case No. EIR 89-4M, for the City of Chula Vista.

### PURPOSE OF THE STUDY

The primary purpose of this study is to evaluate current market conditions and identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the subject property. Of primary concern are retail centers located along Broadway and Third Avenue; however, all potentially impacted retail centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis.

This study is not intended to represent a feasibility analysis for the subject development. Concluding that a certain type of retail space should not be represented in the center due to possible oversupply would constitute a feasibility determination, and would also invalidate the original purpose of the study which

is to identify impacts to other businesses and facilities resulting from development of the subject site.

#### **CLIENT**

This study was performed by CIC Research, Inc., as subconsultant to A.D. Hinshaw Associates (ADHA), for the City of Chula Vista. The analysis and interpretation of study conclusions, however, represent the independent findings of CIC Research, Inc. Therefore, any or all study conclusions may not necessarily be shared by the client.

#### **METHODOLOGY**

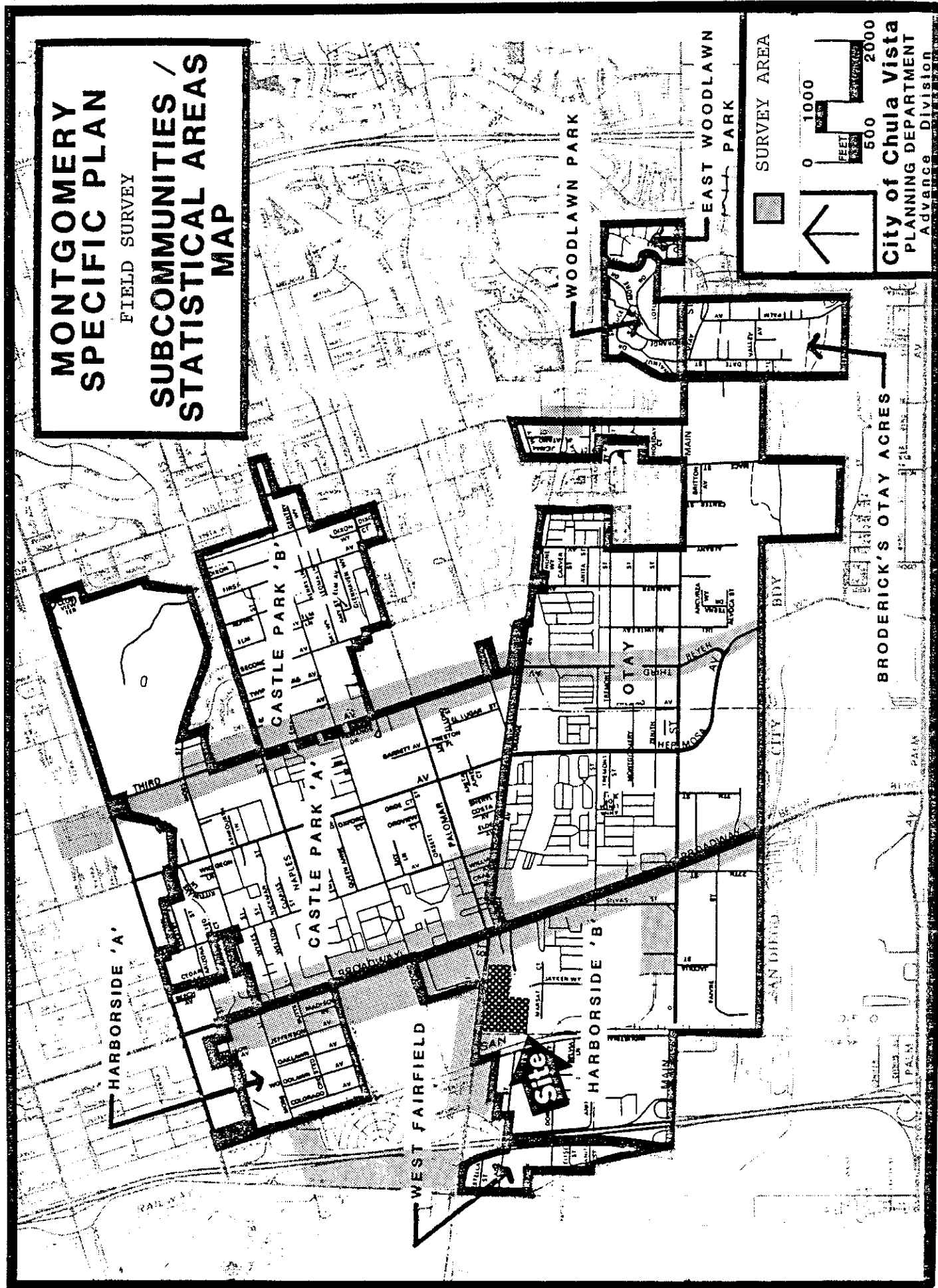
Data collection tasks in this study included both primary and secondary approaches. The primary data gathering consisted of a detailed field survey conducted on September fifth, sixth and seventh of 1989 of retail businesses and centers in the vicinity of the Montgomery Specific Plan area. For an establishment to be included in the survey it must first resemble a retail business, such as a market, drugstore, clothes store, restaurant or other establishment supplying commodities or services. Secondly, it can be located in the mercantile and office commercial or heavy commercial areas as dictated by the January 1988, Montgomery Specific Plan Diagram prepared by the City of Chula Vista, Advanced Planning Division. The final condition for an establishment to be included is it can be located in an industrial park which allows retail uses permitted by a conditional use permit and possess a retail business license with the City of Chula Vista. The City of

Chula Vista, Planning Department assisted CIC Research in identifying which industrial parks had CUPs that allow retail uses and determined all retail business licenses issued in the identified parks.

The main purpose of the field survey was to identify all retail businesses in the Montgomery Specific Plan area and to conduct an on-site estimate of gross square footage. The retail businesses identified from the field survey were grouped into State Board of Equalization categories by types of business. The projects were categorized to allow comparison to consumer demand estimates generated by National Decision Systems. The resulting data, providing both supply and demand estimates, were then analyzed in relation to the additional retail space expected from the subject development.

The above mentioned field survey area is graphically represented in Figure 1. The black outlined area represents the Montgomery Specific Plan Area (M.S.P.) and the shaded portion of the map represents where retail projects were surveyed. As noted from the shaded area, not all surveyed areas were within the M.S.P. boundaries. Along both sides of Broadway, CIC began surveying retail establishments at Arizona Street and continued south. Even though the M.S.P. boundaries do not include the area between Naples Street and Oxford Street on the west side of Broadway, CIC included this area's retail projects (Price Club, Price Bazaar, Levitz, Home Club, and Silo) because of the retail nature and central location within the retail business district of M.S.P. The field survey

Figure 1



continued south past Main Street along Broadway to the Otay River, which forms the southern boundary of the M.S.P. area.

The area between the subcommunities of Harborside "A" and West Fairfield/Harborside "B" in M.S.P. as depicted on Figure 1 was also included in the survey. Only legal retail business within industrial parks and freestanding in the above mentioned area were included. Even though this area is not within the boundaries of M.S.P. it was included in the survey because it is surrounded by the M.S.P. community, located near the study site and legal retail uses were identified in this area.

Third Street also represents one of the major retail areas within the Montgomery Specific Plan area. The survey included one center, which is located at 880 Third Avenue just north of "L" Street. This center (Vons) was included even though it is outside of the M.S.P. boundaries because the tenant mix would be competitive to the proposed project and its across the street from the M.S.P. boundaries. The retail survey included all retail centers and freestanding buildings on both sides of Third Street within the boundaries of M.S.P. from "L" Street to the Otay River.

Adjacent to Main Street, there are businesses that have the physical characteristics of a retail establishment, but are designated for research and limited industrial land uses. Due to the current land use designation, CIC did not further investigate each business on Main Street to determine its actual classification. Therefore no businesses in industrial zones along Main Street were included in this retail survey. However retail



businesses that were located in areas designated for heavy commercial along Main Street were included.

The Lincoln South City Business Center was excluded due to incomparable zoning (M-52). Within the Palomar Commerce Center and Bayview Business Center there are some buildings which allow retail business due to a CUP. Within these buildings all tenants which have a retail business license (as determined by the City of Chula Vista) were included in the survey. The American Design Center building on Industrial Boulevard was also included because of a CUP which allows retail uses. The eastern portion of Sommerset Plaza was excluded as retail space because it is zoned for industrial space with a CUP that allows retail uses, however the center currently has no tenants with a retail business license (as determined by the City of Chula Vista).

Also, office uses within the mercantile and office commercial area were included only if located within an identified retail center. Office tenants include; financial services, medical offices, insurance companies, etc. These uses were surveyed because of the potential for the subject project to include such office uses within its tenant mix. However no pure office buildings were included in the survey.

Recently finished retail projects which were completely vacant as of the September field survey were included in the data tables as vacant, even though the listing broker might have indicated some preleasing activity. These projects were designated as vacant because of the difficulty in verifying square footages, tenant types and actual future occupancy.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory (October 1987), Chula Vista Zoning Ordinance, Traffic Analysis for Land Use Zoning Chart, Palomar Trolley Center (Willdan Associations, October 1988), and Sandag Series VII demographic forecasts.

#### **REPORT ORGANIZATION**

The report is organized into five sections. Following the introduction is a description of the site related to development plan and land use characteristics. The third section defines the market area of the center and describes the total potential retail sales available from this area. In the fourth section, market shares are estimated. In the final chapter potentially impacted types of businesses/centers are identified and the degree of future competition or impact is estimated. An appendix in the back of the report includes supporting tables referred to in the text.



## SITE DESCRIPTION

### LOCATION AND DIMENSIONS

The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. Figure 2 illustrates the location of the site in the southwestern portion of the city. The site entails 12.23 acres with 128,387 square feet planned for development, resulting in a coverage ratio of 24 percent (see Figure 3).

### DEVELOPMENT PLAN

The 128,387 gross square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 square feet. In-line shops would occupy 10,200 square feet, and the five pads would provide 15,335 square feet of space.

### LAND USE CHARACTERISTICS

Development of the study site as proposed would increase the importance of the Palomar/Broadway commercial node as a shopping district. Interaction with existing retail uses at the Ralphs/

Figure 2  
SITE LOCATION WITHIN  
CHULA VISTA

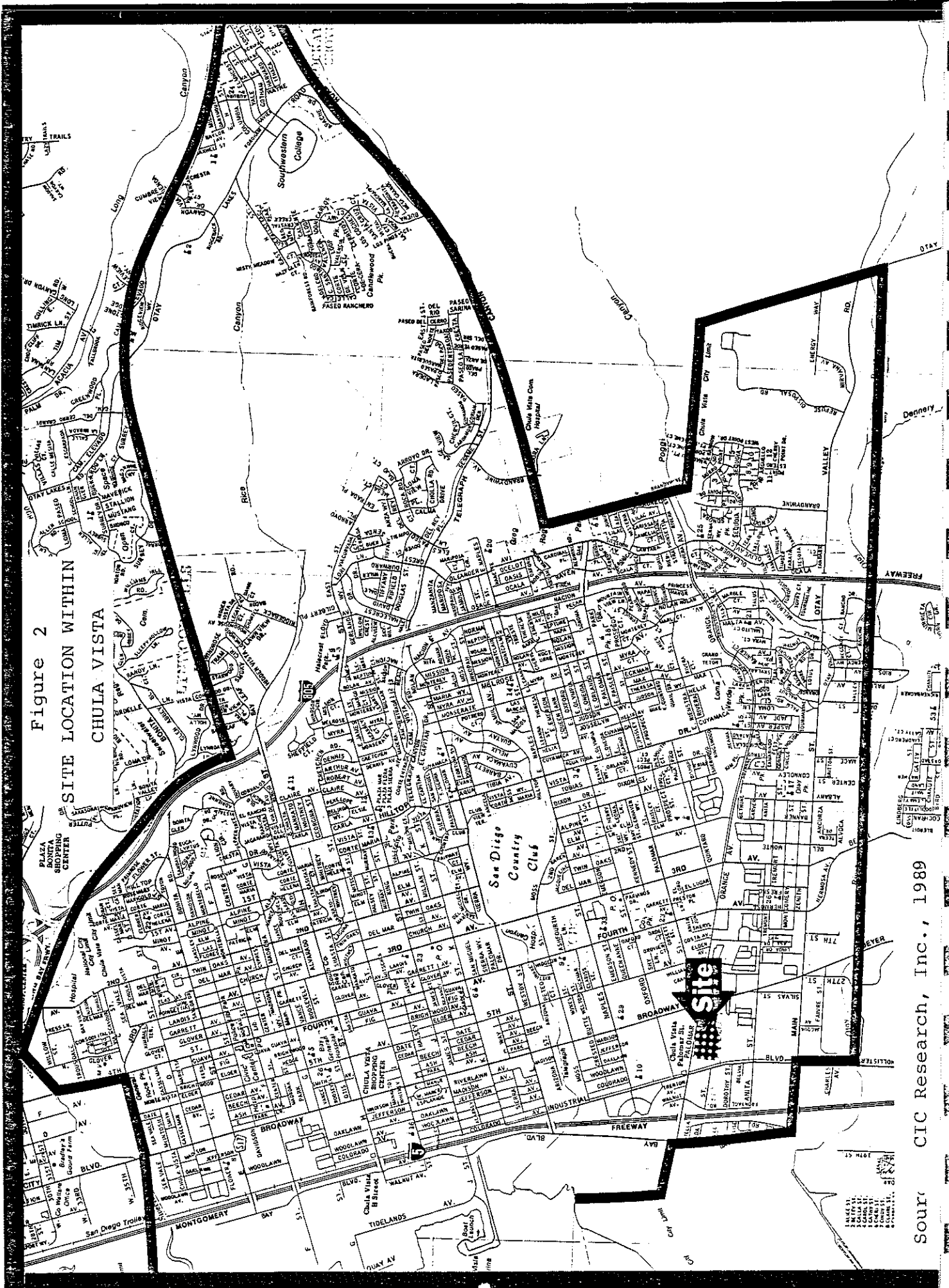
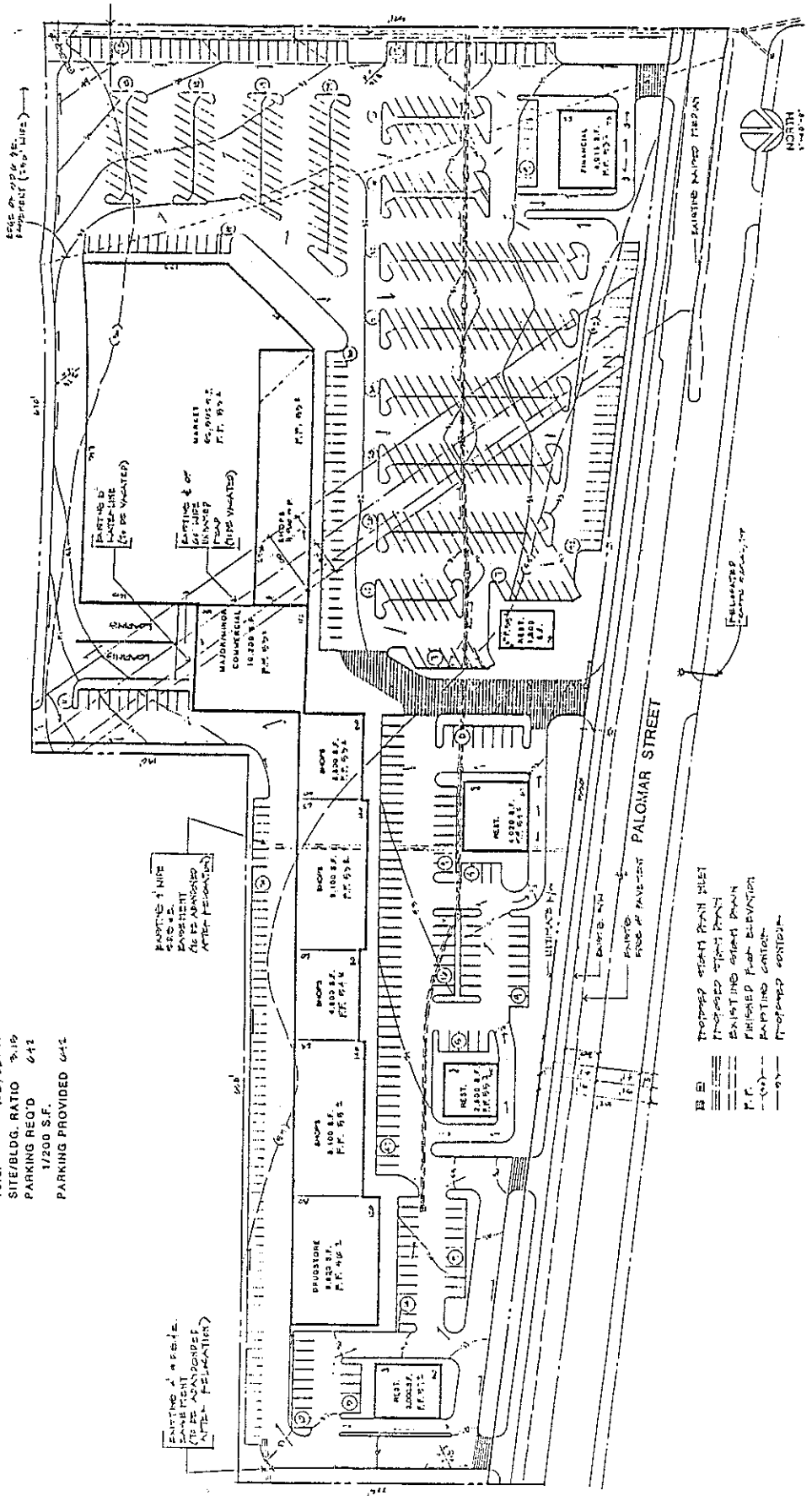


Figure 3  
SUBJECT SITE FOOTPRINT

**RESUME**

SITE AREA	957,120 sq. ft.
BLOG. AREA	52,895 sq. ft.
Market	14,240 sq. ft.
Comm.	38,655 sq. ft.
Shops/Drugs	5,100 sq. ft.
Pads	15,100 sq. ft.
Total	128,100 sq. ft.
SITE/BLOG. RATIO	2.41
PARKING REQ'D	642
PARKING PROVIDED	642



Source: Brown Leary Architecture and Planning

Target center (225,900 square feet), together with retail projects along Broadway will create a complementary relationship from which the subject site may benefit. The current 28,200 average daily trips (ADT) passing the site would also support retail businesses, and, unlike other centers in the immediate area, the center is elongated as it fronts on Palomar Street, providing a high degree of visibility to the project.



## MARKET AREA DESCRIPTION

This chapter will examine the demographic profile of the market area, which will include historical data as well as projections of population and housing units. Also traffic volumes, prepared by San Diego Association of Governments and traffic patterns determined by Willdan Associates will be presented. The last section of this chapter details retail expenditure potential for residential and employment support.

### MARKET AREA DETERMINANTS

In determining the trade area and the market impact area, CIC evaluated the proposed development plan, locations of competitive retail space in relation to the study site and traffic patterns to the site and traffic volumes in the vicinity of the study site.

The proposed development would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area would extend the trade area to a 3.0 mile radius. On the other hand, community centers which range in size from 100,000 to 300,000

square feet with a site area of 10 to 30 acres have a primary trade area that can extend three to five miles and a secondary trade area that can extend seven to ten miles from the site. Given the above trade area statistics and the large amount of nearby large retail facilities, the Palomar Trolley Center market area is expected to draw support from a customer base of approximately three miles.

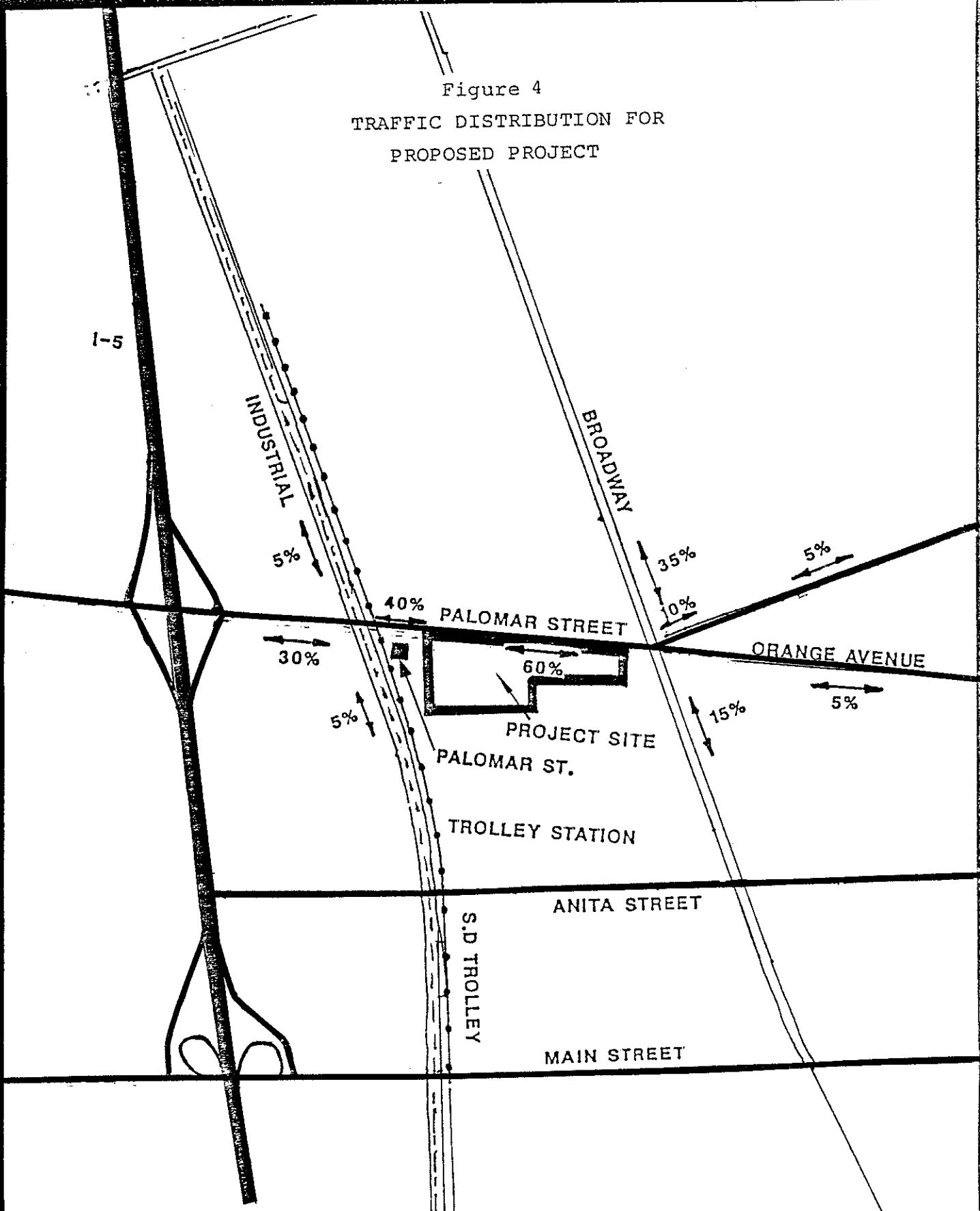
A determinant of the market impact area is the location of competitive retail space in relation to the proposed development. In conducting the field survey of all existing and proposed retail business, CIC determined the major market impact area which has the potential to be physically impacted due to an oversupply of retail space caused by development of the subject property. This area primarily includes, Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

#### **TRAFFIC PATTERNS AND VOLUMES**

Traffic distribution for the proposed project (see Figure 4) was determined by Willdan Associates and confirmed by JHK & Associates. As noted in the figure, the major traffic routes to the site include Broadway from the north and Palomar from the west via Interstate 5. This would indicate that retail developments along these two routes will have higher potential to be impacted both positively and negatively by the proposed development. Interstate 5 travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. Therefore based on confirmed traffic



Figure 4  
TRAFFIC DISTRIBUTION FOR  
PROPOSED PROJECT



Source: Willdan Associates  
Note: MAP NOT DRAWN TO SCALE

patterns, retail developments on Broadway would represent the primary market impact area.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exists are presented in Table A-1 in the Appendix at the back of this report. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

During the period from 1987 to 1988, Broadway between Palomar Street and Main Street has experienced the highest percent change (20.5%) in traffic volumes. These patterns indicate the southern portion of Broadway is fast gaining recognition in terms of business activities, when compared to the northern sections ("L" Street to Palomar) which experienced a decrease in traffic volumes ranging from -3.9 percent to -17.3 percent from 1987 to 1988.

In 1988, no new traffic counts were recorded by San Diego Association of Governments for Third Avenue. However, historical trends from 1983 to 1987, indicate the southern section of Third Street from Palomar to Main Street have experienced greater percent changes compared to the northern section (Palomar to "L" Street).

The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1988 ADT volumes ranging from 18,800 to 24,900 as compared to Third Avenue which ranges from 14,600 to 21,600 (1987 ADT volume). Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

## DEMOGRAPHIC PROFILE

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Tables A-2 and A-3 in the back of the report). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway (refer to Figure A-1). A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within 1.5 miles of the site the population is projected to grow at .1 percent per year (see Table A-2) from 30,258 in 1988 to 30,350 in 1991. The 3.0-mile radius is projected to grow at 1.6 percent per year from 164,919 to 172,982 during the same period. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table A-3. The 1.5-mile radius has the lowest average household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). The income level of a trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

## RETAIL EXPENDITURE POTENTIAL

Retail expenditures by State Board of Equalization (SBE) for the four trade areas are presented in Tables 1 and 2 for 1988 and 1991. The projected 1991 retail expenditure data were derived by

Table 1  
 RETAIL EXPENDITURE POTENTIAL  
 1988  
 (Values in Thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Apparel	\$ 7,864	\$ 42,279	\$ 63,657	\$145,467
General Merchandise	26,970	128,644	193,423	450,831
Drug Store	6,421	30,078	45,214	105,721
Food Store	38,916	192,317	289,283	670,186
Eating & Drinking Places	17,283	85,179	128,122	296,957
Furniture, Furnishings & Appliances	7,850	45,637	68,769	155,296
Building Materials & Farm Implements	7,892	40,764	61,348	141,091
Auto Dealers & supplies	29,008	150,580	226,631	520,791
Service Stations	15,500	78,485	118,091	272,475
Other Retail Stores	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
 Total Retail	 <u>\$172,531</u>	 <u>\$887,239</u>	 <u>\$1,335,200</u>	 <u>\$3,072,930</u>

REPRESENTED IN 1988 DOLLARS

Source: CIC Research, Inc., 1989  
 National Decision Systems

Table 2  
 RETAIL EXPENDITURE POTENTIAL  
 1991\*  
 (Values in Thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Apparel	\$ 7,899	\$ 44,439	\$ 67,742	\$154,997
General Merchandise	27,091	135,216	205,835	480,366
Drug Store	6,450	31,615	48,115	112,647
Food Store	39,091	202,142	307,847	714,092
Eating & Drinking Places	17,361	89,531	136,344	316,411
Furniture, Furnishings & Appliances	7,885	47,969	73,182	165,470
Building Materials & Farm Implements	7,927	42,847	65,285	150,334
Auto Dealers & supplies	29,138	158,273	241,174	554,909
Service Stations	15,570	82,495	125,669	290,326
Other Retail Stores	<u>14,894</u>	<u>98,041</u>	<u>149,688</u>	<u>334,694</u>
 Total Retail	 <u>\$173,306</u>	 <u>\$932,567</u>	 <u>\$1,420,881</u>	 <u>\$3,274,246</u>

\*REPRESENTED IN 1988 DOLLARS

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Source: CIC Research, Inc., 1989  
 National Decision Systems

utilizing the percent change in households from 1988 to 1991 for corresponding trade areas to inflate the 1988 expenditure data. Potential expenditures (1988) were estimated by National Decision Systems (NDS) using statistical projections based on the Census of Retail Trade. Retail expenditures are relative to the number of household's, income levels, and retail establishments within the given market area.

Potential expenditures for food stores (1991) represent the largest proportion of total retail sales within each category, approximately 22.6, 21.7, 21.7, and 21.8 percent for the 1.5, 3.0, 5.0, and 10.0 mile areas, respectively (see Table 2). The discrepancies are due to the variance in household incomes between the four categories as explained in the previous section. On the other hand, potential expenditures for the "other retail" category are proportionately lower for the 1.5-mile radius (8.6%), compared to the 3.0-mile radius (10.5%), 5.0-mile radius (10.5%), and the 10.0-mile radius (10.2%). These trends are indications of the lower disposable incomes for the residents of the 1.5-mile radius.

#### **EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL**

Given the large amount of industrially zoned land within the trade area, an estimation of the employment base retail expenditure potential was performed. CIC determined the total occupied square feet of industrial space within the market area (see Table A-4) by

utilizing area brokers and the Guide to Industrial/R&D Space 1987-1988.<sup>1</sup> An estimate of employment was calculated using a ratio of three employees per 1,000 square feet of industrial space. A total of 5,212 employees were estimated to work within the defined market area. This estimate is considered to be conservative, since owner occupied buildings were excluded due to lack of information sources.

These 5,212 employees currently support a major portion of 101,426 square feet of retail space within the market area (see Table A-5). Employment base-supported retail space was generally identified as eating and drinking establishments or convenience centers located adjacent to an industrial area. An estimated additional 1,472 square feet of retail space will be supported annually from 1989 to 2010 by the local employment base.

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<sup>1</sup>CIC Research, Inc., 1987.



## IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESS/FACILITIES

In this section, the market analysis and determination of potential impacts to businesses and facilities are described. Market impacts and capture rates are estimated on the basis of square footage, number of outlets, and dollar volumes of sales.

### ANALYSIS OF EXISTING RETAIL BASE

A field survey conducted by CIC Research identified retail projects within or adjacent to the Montgomery Specific Plan (M.S.P.) area. The principal retailing areas are found along Broadway and Third Avenue. All retail centers (two or more retail units connected) identified within the defined market area are described in terms of tenant types, square footage, address/location and occupancies in Table A-6 and the larger centers are located in Figure A-2. Also included within the table are freestanding retail buildings grouped together by street blocks.

Two community shopping centers were identified, Price Club Center and the Ralphs/Target Center. These centers create a large market area, which draws customers from much further than the M.S.P. boundaries. The subject center would receive some benefit from being located near these community centers, since many shoppers would pass by the site. Other projects such as Palomar



Village, Trolley Square and Palomar Square currently attract support from the nearby community centers.

Of the 1,860,716 square feet of retail space surveyed, 1,626,210 square feet is occupied by retail tenants/owners. The difference is accounted for by 91,799 square feet in office uses located within surveyed retail centers and 142,707 square feet of vacant space (7.7% vacancy). Three recently completed retail centers account for the majority of vacant space. The subject project would add 128,387 square feet or 6.9 percent to the current base of occupied and vacant retail and office space. The discrepancies in sample size between the original survey conducted in December of 1988 and the more recent (September 1989) survey are primarily due to new development becoming available such as, Sommerset Plaza West, and Music Mart Plaza.

Described in Table 3 are estimates of square footage of retail space by type of business (State Board of Equalization retail categories) and market base support (residential and employment). Approximately 95 percent of the retail outlets surveyed were estimated to be supported by the residential population. The remaining five percent were estimated to be supported by local employees, and include convenience food stores and eating and drinking places located in the vicinity of industrial developments. A total of 414 establishments were identified. The largest number of outlets were found in the retail service category (84) and the greatest square footage is in the general merchandise group (387,950 square feet).

Table 3  
ESTIMATED SQUARE FOOTAGE OF  
RETAIL SPACE BY TYPE OF BUSINESS

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	74,055	31	---	---	74,055	31
General merchandise	387,950	8	---	---	387,950	8
Drug stores	43,150	4	---	---	43,150	4
Food stores	188,051	28	24,242	11	212,293	39
Packaged liquor	11,940	5	---	---	11,940	5
Eating and drinking places	146,850	55	66,492	26	213,342	81
Home furnishings and appliances	204,860	39	---	---	204,860	39
Building materials and farm implements	153,498	5	---	---	153,498	5
Auto supplies/dealers	28,487	14	---	---	28,487	14
Service stations	14,600	6	---	---	14,600	6
Other retail stores	<u>128,189</u>	<u>60</u>	---	---	<u>128,189</u>	<u>60</u>
<b>Retail store total</b>	<b>1,381,630</b>	<b>255</b>	<b>90,734</b>	<b>37</b>	<b>1,472,364</b>	<b>292</b>
Business and Personal Retail Services	<u>150,502</u>	<u>82</u>	<u>3,344</u>	<u>2</u>	<u>153,846</u>	<u>84</u>
<b>Total</b>	<b><u>1,532,132</u></b>	<b><u>337</u></b>	<b><u>94,078</u></b>	<b><u>39</u></b>	<b><u>1,626,210</u></b>	<b><u>376</u></b>
Office Space within retail centers	<u>91,799</u>	<u>38</u>	---	---	<u>91,799</u>	<u>38</u>
<b>Total Space Surveyed</b>	<b>1,623,931</b>	<b>375</b>	<b>94,078</b>	<b>39</b>	<b>1,718,009</b>	<b>414</b>

Source: CIC Research, Inc., September 1989

#### **PLANNED RETAIL DEVELOPMENTS**

CIC identified seven planned retail developments within the defined market area during the September 1989 field survey (refer to Table A-7). The projects include: Price Club Center addition, Broadway Auto Plaza, Hermosa Plaza, Genesis Square, a 22,000 square foot project on Broadway, Naples Center addition, and two retail pads at Palomar Village for a total of 94,150 square feet. These projects represent convenience type retail or spin-off uses drawing from the customer base generated by the larger community centers and from residents in the immediate market area.

#### **STUDY SITE SALES ESTIMATE**

It is not the purpose of this report to determine the feasibility or tenant mix for the site. However, to estimate potential market impact, CIC determined typical tenants which would occupy space at the proposed neighborhood retail center. Table 4 presents a square footage and sales distribution (1988 dollars) for a supermarket/drug store concept. Estimated sales per square foot ratios were developed from the Urban Land Institute's "Dollars and Cents of Shopping Centers" and represent medians; however, sales levels could exceed these amounts. Potential annual gross sales for the subject project are estimated at \$30,133,000. The primary revenue sources are the proposed food store (\$19,516,000 annually) followed by the drug store (\$1,719,000 annually).

Table 4  
 SUBJECT PROJECT POTENTIAL SALES  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 Dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	10,200	100.52	1,025
Drug stores	9,600	174.09	1,719
Food stores supermarket	52,552	371.37	19,516
Eating & drinking places			
fast food	4,300	179.11	770
restaurant	<u>7,020</u>	143.72	<u>1,009</u>
	11,320		1,779
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>30,700</u>	155.33	<u>4,769</u>
	32,700		5,010
Business and personal retail services			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,015	N/A	N/A
<b>Total</b>	<u><u>128,387</u></u>		<u><u>\$30,133</u></u>

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Source: CIC Research, Inc., 1989  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

## MARKET IMPACT

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 5 presents a comparison of the existing square footages and outlets surveyed in the Montgomery Specific Plan area with the subject project. Overall, the project would represent seven percent of the existing total retail square footage surveyed and six percent of the existing total retail outlets surveyed. The proposed office tenant (financial center) would represent four percent of the existing office space within retail centers and three percent of the existing office outlets. See Table A-8 for a detailed description of all space surveyed by retail category. Assuming the seven known planned/under construction centers (94,150 square feet) are fully occupied, the study site proportion would equal 7.1 percent of the total square footage of existing/occupied and planned centers.

Proposed retail uses for the Palomar Trolley Center, which include the retail categories of drug store, food store and other retail stores represent the higher proportions of the area retail space compared to other categories. The proposed drug store represents 22 percent of the area retail space (square footage), as well as 25 percent of the area retail outlets.

The proposed food store would also represent a high proportion (25%) of the area retail space. In terms of the proportion of area retail outlets, the proposed food store represents only three percent of the total 39 food store outlets. The proposed food

Table 5  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA

	Existing Occupied Retail Space		Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	74,055	31	6,000	1	8%	3%
General merchandise	387,950	8	10,200	1	3	13
Drug stores	43,150	4	9,600	1	22	25
Food stores	212,293	39	52,552	1	25	3
Packaged liquor	11,940	5	---	---	0	0
Eating and drinking places	213,342	81	11,320	4	5	5
Furniture, furnishings and appliances	204,860	39	---	---	0	0
Building materials and farm implements	153,498	5	---	---	0	0
Auto supplies/dealers	28,487	14	---	---	0	0
Service stations	14,600	6	---	---	0	0
Other retail stores	128,189	60	32,700	16	26	27
<b>Retail Store Total</b>	<b>1,472,364</b>	<b>292</b>	<b>122,372</b>	<b>24</b>	<b>8%</b>	<b>8%</b>
Business and Personal Retail Service	153,846	84	2,000	1	1	1
<b>Total</b>	<b>1,626,210</b>	<b>376</b>	<b>124,372</b>	<b>25</b>	<b>8%</b>	<b>7%</b>
Office space within retail centers	91,799	38	4,015	1	4	3
<b>Total Space Surveyed</b>	<b>1,718,009</b>	<b>414</b>	<b>128,387</b>	<b>26</b>	<b>7%</b>	<b>6%</b>

Source: CIC Research, Inc., September 1989

store would be one of five major food stores (over 20,000 square feet) and 35 other smaller food outlets.

The proposed retail uses which are classified into the "other retail store" category would represent a high proportion of area retail space (26%) as well as area outlets (27%). Since the "other retail store" category encompasses a wide range of retail uses, these high proportions should be reduced with proper tenant selection for the Palomar Trolley Center during the original lease-up effort.

Although the above mentioned proportions are high, they deal only with Palomar Trolley Center's relative future share of supply in these categories. The fact that these specific supply-side square footage proportions are so large (22% to 26%) in a retail district with over 1.6 million square feet of occupied retail space, actually agrees with the demand analysis (mentioned below). That is, if uses as common as food and drug stores are so scarce (considering the overall amount of space) as to show dramatic comparisons, then there is the concern that the area has been under-supplied in these categories. This supply analysis is mainly concerned with illustrating the relative proportions of each type of use, and the size of the center with respect to the total retail base. In this case, Palomar Trolley Center would represent seven percent of the area retail square footage and six percent of retail outlets. A more important determinant of impact is to quantify demand for the location on its context as a major retailing area, which is presented in the following paragraphs.

A third means of evaluating market impact is to estimate sales capture rates for the project at the estimated time it would open. Conclusions of this approach are presented in Table 6. At the bottom of the table, the total estimated sales from the subject project would represent 17 percent of the available expenditures in the immediate 1.5-mile market area, three percent in the 3.0-mile area, and two percent in the 5.0-mile area (see Figure A-1).

By assuming the subject development works in combination with the Ralphs/Target Center and other retail development at Palomar and Broadway by creating more synergy the market area would include a region of up to three to five miles from the site. The proportionate capture of total sales in the 3.0-mile market area is three percent. This market area is probably the best representation of regional draw for the study site considering the expected tenant types and proximity to the community-size shopping center.

Given the 3.0-mile market size, the food store would capture the largest share of retail expenditures, at a ten percent rate.<sup>2</sup> The drug store would represent the next largest addition to the market acquiring five percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market. These above mentioned demand-side proportions indicate far less real impact than would be indicated by using the supply analysis alone.

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<sup>2</sup>Retail developments outside the Montgomery Specific Plan area, but within three miles, were not considered in this part of the analysis as their market areas and capture rates would also need to be estimated. Given the limitations established by the scope of the study, the analysis represents a comparison only for retail establishments within the Montgomery Plan area.



Table 6  
 MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
 (1988 dollars, values in thousands)

	Estimated 1991 Retail Sales Trade Area Around Site		Palomar Trolley Center Projected Sales	Palomar Trolley Center Capture of Market Area Sales			
	1.5 Miles	3.0 Miles		5.0 Miles	1.5 Miles	3.0 Miles	5.0 Miles
Apparel	\$ 7,899	\$ 44,439	\$ 67,742	\$874	11%	2%	1%
General Merchandise	27,091	135,216	205,835	1,025	4	1	1
Drug Stores	6,450	31,615	48,115	1,719	27	5	4
Food Stores	39,091	202,142	307,847	19,516	50	10	6
Eating and Drinking Places	17,361	89,531	136,344	1,779	10	2	1
Furniture, Furnishings and Appliances	7,885	47,969	73,182	---	---	---	---
Building Materials and Farm Implements	7,927	42,847	65,285	---	---	---	---
Auto Dealers and Supplies	29,138	158,273	241,174	---	---	---	---
Service Stations	15,570	82,495	125,669	---	---	---	---
Other Retail Stores	14,894	98,041	149,688	5,010	34	5	3
Subtotal	\$173,306	\$932,567	\$1,420,881	\$29,923	17%	3%	2%
Business and Personal Retail Services	---	---	---	210	---	---	---
TOTAL	\$173,306	\$932,567	\$1,420,881	\$30,133	17%	3%	2%

Source: CIC Research, Inc., 1989  
 Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
 National Decision Systems

## EXISTING COMPETITIVE CONDITIONS

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, centers along Broadway. Several of these centers have incompatible tenant mixes and substantial vacancies. A prime example of a poorly planned center is the Naples Center, which attracted a dysfunctional combination of tenant types originally and more recently has added 6,000 square feet of space, directly blocking visibility to the previous tenants. The occupancy rate, which decreased from 51 percent in December of 1988 to 19 percent in September of 1989, indicates the failure of such retail centers can be correlated with mistakes or problems that are specific to those properties and not the direct results of competition.

For the above mentioned types of centers, it is assumed that land and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these centers to have high occupancy rates and average to high lease rates for the area in order to break even. Furthermore, development of the seven planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up (i.e., vacancies) of existing centers.

Existing centers that could be affected by both planned development and the subject project include the smaller older projects along Broadway and the poorly planned centers, primarily located along Broadway. Also, some of the industrial/business centers which allow non-conforming retail uses could also be affected.

Within any successful retail market, retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine proper tenant mixes which provide mutual support. In the above mentioned examples of retail centers with vacancy problems, previous leasing activity has accepted nearly any business that will sign a lease. Furthermore, building designs have maximized square footage at the cost of visibility from the street. Such haphazard leasing combinations and building designs can discourage future tenants from leasing in a particular center. Other better located and designed centers with a carefully selected tenant mix will continue to out-compete these centers for tenants.

The Palomar Trolley Center is well located and has indicated a carefully thought out leasing plan would be used. Even if lease rates are higher at the Palomar Trolley Center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway for all types of businesses except convenience outlets. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

The Montgomery Specific Plan's retail market base has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district draws customers while maintaining a reasonably low vacancy rate. In the case of diversification, synergy creates more activity among different outlets. By increasing the number of

outlets, the draw reaches further than previous boundaries. These conditions are illustrated by the historical situation provided when the Price Club and Target Center(s) were developed in 1979. This development increased retail square footage by at least 50%, or approximately six times the proportionate increase the subject development represents. However, construction of housing units was proceeding at roughly 1.2% to 2.6% per year at this time (refer to Table A-2).



## MARKET IMPACT CONCLUSIONS

As previously mentioned, the relative proportions of the market that the retail and office uses for the Palomar Trolley Center site are eight percent of the total 1.6 million square feet of occupied retail space (Table 5) and four percent of the 91,800 square feet of office space within retail centers (Table 5). In terms of market share capture the subject site represents 17 percent of the 1.5-mile area's potential sales, three percent of the 3.0-mile area, and two percent of the 5.0-mile area (Table 6, Figure A-1). If all market conditions remained the same the Palomar Trolley Center's potential capture of area retail expenditures (Table 6) could represent potential increases in the market area's retail vacancy rate. An additional three percent increase in the vacancy rate could occur, due to the center's potential to capture three percent of the total retail sales in the 3.0-mile market area (the determined market area for the site).

In reconciling both supply and demand conditions the above mentioned proportions do not imply a significant impact from development of Palomar Trolley Center. Particularly since Montgomery Specific Plan's retail district has been capable of absorbing large amounts of retail space in the past through diversification in the type of retail businesses present and/or expanding the geographic market area from which the retail district

draws customers, while maintaining a reasonably low vacancy rate. These proportions would have insignificant socioeconomic impacts on the total retail market in Montgomery Specific Plan area, thus no physical deterioration to existing buildings or shopping centers is anticipated. However, future sales from the subject site will depend on competition with existing and planned retail outlets in the M.S.P. area, as well as other market areas, and not from growth of the local population or households.

Population growth within 1.5 and 3.0 miles of the site has reached near capacity in terms of residential base as indicated by the 0.1 and 1.6 percent annual change from 1988 to 1991 (Table A-2). Applying these projected growth rates to the current estimated 1,626,210 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 1,626 to 26,019 square feet of additional retail space can be supported annually (1988 to 1991) by the residential population. Also an estimated additional 1,472 square feet of retail space will be supported annually from 1989 to 2010 by the growth of the local employment base. In summary, population, housing, and employment growth are not requirements to support absorption of the Palomar Trolley Center. The draw and penetration of the retail district of Montgomery Specific Plan has been increasing faster than the growth in population and housing, and is expected to continue to do so.

Planned retail centers (not including the subject) would represent an additional 94,150 square feet over the next two years. Adding the subject project, a total of 222,537 square feet would be added, or a 6.5 percent annual increase in two years, above the

amount of existing occupied retail space. Of the planned developments, three projects comprising 49,720 square feet are currently (September 1989) available for preleasing and have preleased an estimated total 42 percent, according to listing brokers, indicating a continued demand for retail space. These planned projects represent convenience type retail or spin-off uses drawing from the expanded trade area generated by the larger community centers and from penetration from the existing trade area. As previously mentioned the Montgomery Specific Plan's retail base has been capable of absorbing large amounts of retail, space in the past by increasing the draw and penetration of the retail district.

Since the Palomar Trolley Center is not large enough to significantly impact the market, it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments. If vacancies persist in other centers, they would relate to specific problems associated with poor design and leasing strategies of the centers. Also a poor location in relation to existing or planned retail centers could also cause vacancies. These factors are an active part of any retail market and represent a continual competitive process whereby the market responds to consumer preferences, and the attempt of developers and businesses to meet consumers' needs.

As previously discussed no significant adverse socioeconomic impacts are expected from development or operation of Palomar

Trolley Center. Consequently, no physical deterioration can be anticipated to existing buildings or shopping centers. Because no significant impacts have been identified, there are no mitigation measures to be associated with the project.





APPENDIX A

Table A-1  
AVERAGE DAILY TRAFFIC VOLUMES  
(in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>% Change 1987-1988</u>	<u>% Change 1983-1988</u>
<b>Broadway</b>								
L Street & Naples Street	18.6	18.6*	18.6*	23.2	25.9	24.9	-3.9	33.9
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	22.5	-17.3	18.4
Palomar Street & Main Street	12.8	12.8*	12.8*	16.4	15.6	18.8	20.5	60.2
<b>Industrial</b>								
Naples Street & Palomar Street	4.3	4.3*	3.9	5.6	5.3	5.0	-5.7	16.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	7.2	1.4	67.4
<b>Main Street</b>								
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	20.1*	0.0	37.7
<b>Orange Avenue</b>								
Melrose Avenue & Interstate 805	17.9	18.8	18.8*	18.8*	23.2	23.2*	0.0	29.6
<b>Otay Valley Road</b>								
Melrose Avenue & Interstate 805	14.0	14.0*	14.0*	14.9	18.9	18.9*	0.0	35.0
<b>Palomar Street</b>								
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4*	23.4*	29.7	29.7*	0.0	39.4
Industrial Blvd. & Broadway	22.0	22.0*	22.1	22.9	28.2	28.2*	0.0	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	13.9*	0.0	10.3
Fourth Avenue & Third Avenue	13.5	13.5*	13.5*	13.9	14.0	14.0*	0.0	3.7
Third Avenue & Hilltop Drive	11.6	11.6*	11.6*	12.1	12.4	12.4*	0.0	6.9
<b>Telegraph Canyon Road</b>								
L Street & Interstate 805	28.4	28.4*	28.4*	30.7	37.5	37.5*	0.0	32.0
<b>Third Avenue</b>								
L Street & Moss Street	19.0	22.0	22.7	22.7*	21.6	21.6*	0.0	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5*	21.1	21.1*	0.0	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7*	19.7*	19.6	19.6*	0.0	2.0
Palomar Street & Quintard St.	15.6	15.6*	15.6*	15.9	18.0*	18.0	0.0	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	14.6*	0.0	15.9

\*INDICATES NO NEW COUNT WAS TAKEN

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Source: San Diego Association of Governments  
CIC Research, Inc., 1989

Table A-2  
 MARKET AREA POPULATION AND HOUSING ESTIMATES

	<u>1980</u>	<u>1988</u> <u>Estimate</u>	<u>1991</u> <u>Estimate</u>	Annual Percentage Change	
				<u>1980-88</u>	<u>1988-91</u>
<u>Population:</u>					
1.5-mile distance	30,512	30,258	30,350	(0.1)%	0.1%
3.0-mile distance	144,540	164,919	172,982	1.7	1.6
5.0-mile distance	210,985	252,223	268,088	2.3	2.1
10.0-mile distance	514,576	606,458	641,183	2.1	1.9
<u>Housing Units:</u>					
1.5-mile distance	11,748	12,908	12,966	1.2%	0.1%
3.0-mile distance	48,416	57,449	60,384	2.2	1.7
5.0-mile distance	70,384	86,301	91,839	2.6	2.1
10.0-mile distance	166,511	203,670	217,013	2.6	2.1

Source: National Decision Systems

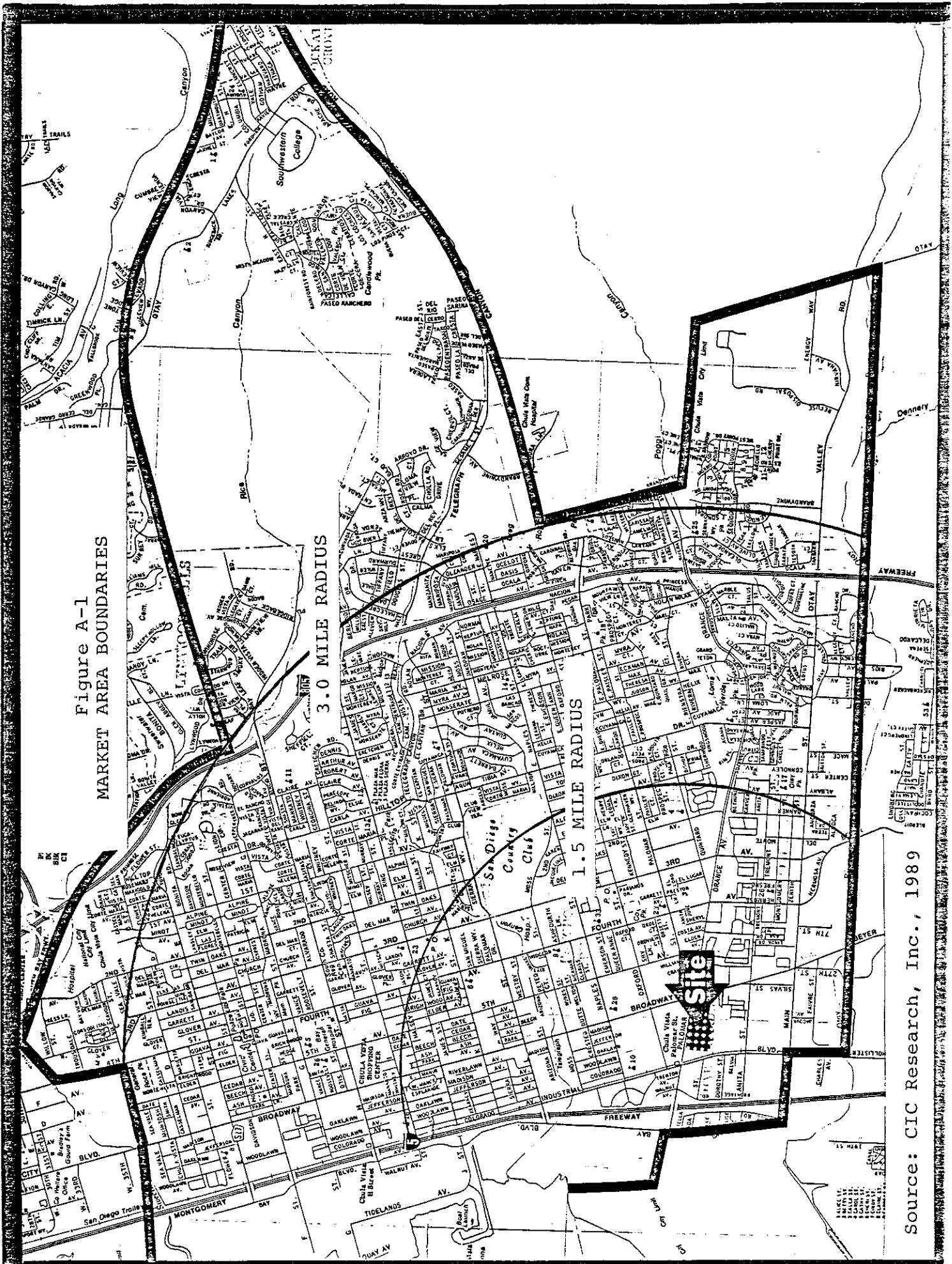
Table A-3  
MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile Distance</u>	<u>3.0 Mile Distance</u>	<u>5.0 Mile Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems

Figure A-1  
MARKET AREA BOUNDARIES



Source: CIC Research, Inc., 1989

Table A-4  
MARKET AREA\*  
EMPLOYMENT BASE

<u>Project</u>	<u>Address</u>	<u>Total Occupied Square Ft.</u>	<u>Est.# of Employees**</u>
Palomar Commerce Center	635-675 Palomar	78,000	234
Chula Vista Oxford Park	635 Oxford	30,000	90
Southrail Business Park	1547 Jayken St.	182,000	546
	690 Anita St.	18,000	54
South Bay Bus. Park	653 Anita St.	52,800	158
Rancho Anita Industrial	1616 Ind. Blvd.	97,390	292
	789 Anita St.	12,000	36
	803 Anita St.	10,000	30
	819 Anita St.	10,000	30
Brittania Bus. Center	675 Anita St.	105,600	317
South City Bus. Center	2260 Main St.	167,980	504
Bay View Commerce Ctr.	1021 Bay Blvd.	276,150	828
Bayside Business Park	1120 Bay Blvd.	75,891	228
	916 Ind. Blvd.	18,700	56
Glad Industrial Park	2446 Main St.	63,200	190
Norsouth Industrial Park	2252 Verus St.	48,691	146
Sky Trio Industrial Park	7020 Alamitos Avenue	19,712	59
Redlich Industrial Park	2540 Main St.	58,800	176
	2293 Verus St.	-0-	-0-
	2400 Main St.	162,600	488
Ratner Building	670 L St.	<u>250,000</u>	<u>750</u>
	<b>Total</b>	<b>1,737,514</b>	<b>5,212</b>

\*Market area includes industrial projects located along the Interstate 5 corridor from "L" Street to Main Street, within Chula Vista.

\*\*Estimated number of employees was calculated using a ratio of three employees per 1,000 square feet.

Source: CIC Research, Inc., September 1989

Table A-5  
 MARKET AREA INDUSTRIAL EMPLOYMENT  
 BASE AND RETAIL SUPPORT PROJECTIONS\*

	<u>1989</u>	<u>1995</u>	<u>2000</u>	<u>2010</u>	<u>Annual Percent Change</u>
Employees	5,212	5,750	5,978	6,801	1.3%
Retail space** supported by area industrial employees (sq.ft.)	101,426	111,895	116,332	132,347	1.3%

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\*Projections (growth rates) were based on SANDAG employment projections for Chula Vista.

\*\*Based on a field survey conducted by CIC Research, Inc., 1988.

Source: SANDAG, July 1988  
 CIC Research, Inc., 1989

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Palomar	Palomar Village/ 693 Palomar St.	clothes	5,900	77%
		hardware	4,700	
		appliance	14,200	
		computer	2,250	
		vacant	<u>8,272</u>	
			<u>35,322</u>	
Palomar	Trolley Square/ 651 Palomar St.	clothes	12,480	98
		restaurant	2,600	
		stereo	1,456	
		other	11,076	
		hair	780	
		vacant	<u>2,704</u>	
			<u>31,096</u>	
Palomar	Palomar Plaza 303-315 Palomar	restaurant	5,160	46
		vacant	<u>6,160</u>	
			<u>11,320</u>	
Palomar	Pacific Coast College 251 Palomar	fastfood	2,100	93
		auto	2,100	
		vacant	3,500	
		non-retail	<u>39,000</u>	
			<u>46,700</u>	
Palomar	251 Palomar	restaurant	4,500	80
		other	1,500	
		vacant	<u>1,500</u>	
			<u>7,500</u>	
Broadway	Main Center/ 1680 Broadway	boots	3,440	91
		rest./bar	18,200	
		other	720	
		vacant	3,120	
		non-retail	<u>9,260</u>	
			<u>34,740</u>	
Broadway	Sommerset Plaza West 1610-1660 Broadway	vacant	<u>52,626</u>	0
			<u>52,626</u>	
Broadway	Small World Village 1418 Broadwaydeli	auto	400	100
		other	600	
		hair	400	
		non-retail	400	
			<u>1,800</u>	
			<u>3,600</u>	
Broadway	Palomar Square/ 1355 Broadway	food	1,000	80
		liquor	4,640	
		fast food	12,640	
		other	7,380	
		service	2,100	
		vacant	<u>6,990</u>	
			<u>34,750</u>	



Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Broadway	Oxford Square 1215 Broadway	apparel	1,600	92%
		furniture	10,230	
		other	4,000	
		service	800	
		vacant	1,440	
			<u>18,070</u>	
Broadway	Ralphs Center/ 1210 Broadway	apparel	8,527	100
		target	105,625	
		general	27,475	
		food	55,250	
		fast food	12,900	
		stereo	10,647	
		auto	5,500	
			<u>225,924</u>	
Broadway	Music Mart Plaza/ 1181 Broadway	music	2,500	63
		service	3,750	
		vacant	3,750	
			<u>10,000</u>	
Broadway	Broadway Point/ 1177 Broadway	clothes	3,360	90
		food	952	
		fast food	5,600	
		furniture	3,360	
		auto	784	
		other	6,608	
		service	2,240	
		vacant	2,688	
		non-retail	2,072	
Broadway	Price Club/ 1144 Broadway	clothes	11,250	100
		price club	118,800	
		food	3,100	
		fast food	5,380	
		stereo	44,396	
		hardware	114,445	
		other	8,950	
		service	700	
			<u>307,021</u>	
Broadway	Naples Center/ 1111 Broadway	services	1,344	19
		vacant	16,548	
		non-retail	2,560	
			<u>20,452</u>	
Broadway	1100 Broadway	restaurant	7,000	100
		auto	6,000	
		vacant	3,000	
			<u>16,000</u>	
Broadway	1068-1082 Broadway	furniture	1,800	100
		hardware	3,600	
		auto	600	
		service	800	
			<u>6,800</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Broadway	1038-1044	service non-retail	1,000 <u>2,000</u> 3,000	100%
Broadway	Arch Plaza/ 1037 Broadway	food restaurant furniture service	760 1,600 2,000 <u>1,800</u> 6,160	100
Broadway	1010 Broadway	food other service vacant non-retail	2,580 3,460 1,932 2,580 <u>1,720</u> 12,272	79
Broadway	Cape Cod Center/ 985 Broadway	fast food T.V. service vacant non-retail	2,562 840 840 4,284 <u>2,688</u> 11,214	62
Broadway	Cal-Store Plaza/ 970 Broadway	sports vacant	17,325 <u>3,440</u> 20,765	83
Third	1592 Third	food non-retail	2,400 <u>3,200</u> 5,600	100
Third	Orange Plaza 1445-1447 Third	vacant	<u>12,000</u> 12,000	100
Third	Jeromes/ 1385 Third	furniture auto services	16,080 2,400 <u>1,500</u> 19,980	100
Third	Big Bear Center/ 1340 Third	clothes discount drug restaurant appliance hardware services	2,500 5,000 26,010 6,000 1,500 30,753 <u>7,000</u> 78,763	100
Third	1324 Third	other service	2,500 <u>5,000</u> 7,500	100

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	Castle Park/ 1315 Third	clothes	8,509	100%
		discount	8,188	
		drug	17,850	
		grocery	33,441	
		fast food	3,805	
		services	4,355	
		non-retail	<u>6,499</u>	
		<u>82,647</u>		
Third	Plaza Del Rey/ 1223 Third	liquor	1,800	94
		fast food	1,350	
		furniture	7,200	
		other	1,125	
		services	4,725	
		vacant	1,125	
		non-retail	<u>2,475</u>	
Third	Oxford South Center/ 1200 Third	drug	1,050	100
		grocery	3,850	
		fast food	4,750	
		T.V.	2,000	
		service	3,050	
		non-retail	<u>2,550</u>	
		<u>17,250</u>		
Third	Pacific Com. Bank/ 1180 Third	clothes	1,500	95
		drug	1,500	
		food	3,300	
		restaurant	6,600	
		appliance	1,800	
		other	9,600	
		service	1,500	
		vacant	1,500	
		non-retail	<u>4,500</u>	
Third	1120 Third	clothes	1,200	100
		fast food	4,250	
		stereo	1,600	
		service	<u>3,200</u>	
		<u>10,250</u>		
Third	Naples Plaza/ 1090 Third	food	4,200	100
		liquor	1,250	
		fast food	1,350	
		restaurant	5,175	
		stereo	1,800	
		other	4,175	
		service	5,625	
		non-retail	<u>3,625</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	1034 Third	clothes	2,000	100%
		liquor	2,000	
		fast food	3,400	
		appliance	1,000	
		auto	2,000	
		other	2,400	
		service	4,800	
		non-retail	<u>2,200</u>	
		<u>19,800</u>		
Third	1011-1029 Third	T.V.	1,600	100
		other	2,900	
		service	2,925	
		non-retail	<u>3,600</u>	
			<u>11,025</u>	
Third	914 Third	auto	1,000	100
		service	<u>400</u>	
			<u>1,400</u>	
Third	Longs/Vons Ctr./ 880 Third	drug	22,750	100
		food	23,420	
		fast food	1,020	
		furniture	900	
		other	680	
		service	<u>2,340</u>	
			<u>51,110</u>	
Main	2578 Main St.	Deli	2,000	100
		Fast Food	1,000	
		TV	<u>1,000</u>	
			<u>4,000</u>	
Main	2540 Main St.	Fast Food	1,600	100
		Printing	<u>1,600</u>	
			<u>3,200</u>	
Main	Glad Industrial Park 2488 Main St.	Clothing	5,589	N/A
		Auto	6,503	
		Other	4,295	
		Service	<u>3,185</u>	
			<u>19,572</u>	
Industrial	American Design Center 1008 Industrial Blvd.	Carpet	1,400	100
		Other	3,580	
		Service	<u>700</u>	
			<u>5,680</u>	
Bay	1085 Bay Blvd.	Food	3,280	N/A
		Other	<u>6,560</u>	
			<u>9,840</u>	

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Palomar	300-879	food	3,500	94%
		fast food	5,000	
		service	1,600	
		vacant	600	
			<u>10,700</u>	
Broadway	1700-1747	general	22,500	93
		food	10,500	
		other	1,680	
		service	9,180	
		vacant	<u>3,280</u>	
	<u>47,140</u>			
Broadway	1600-1643	auto	<u>2,500</u> 2,500	100
Broadway	1500-1550	food restaurant	750 <u>1,200</u> 1,950	100
Broadway	1430	auto	<u>5,000</u> 5,000	100%
Broadway	1300	food restaurant service	4,000 6,000 <u>1,000</u> 9,000	100
Broadway	1187-1193	restaurant toy	4,500 <u>7,200</u> 11,700	100
Broadway	1000-1088	food restaurant appliance service vacant	4,800 11,400 6,000 6,100 <u>1,600</u> 29,900	95
Broadway	900-986	restaurant service	4,400 <u>23,400</u> 27,800	100
Third	1600-1700	food restaurant service	4,200 5,250 <u>4,000</u> 13,450	100
Third	1562-1592	services	<u>6,800</u> 6,800	100
Third	1426-1450	food fast food furniture other	10,500 3,600 2,650 <u>2,000</u> 18,750	100

Table A-6  
EXISTING RETAIL CENTERS AND BUSINESSES  
MARKET CHARACTERISTICS  
(continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Third	1300-1324	food	2,000	100
		fast food	7,700	
		service	1,200	
		non-retail	<u>2,500</u>	
			13,400	
Third	1200-1296	fast food	12,900	100
		furn./app.	6,750	
		gas	1,600	
		service	<u>1,800</u>	
			23,050	
Third	1103-1193	clothes	800	100
		restaurant	12,500	
		appliance	3,000	
		other	7,600	
		service	<u>7,750</u>	
	31,650			
Third	1000-1099	shoes	2,400	100
		K-mart	100,362	
		food	1,500	
		fast food	14,250	
		furniture	25,800	
		gas	2,000	
		other	1,600	
		service	2,900	
		non-retail	<u>800</u>	
			151,612	
Third	900-996	fast food	4,200	100
		auto	5,500	
		gas	2,000	
		other	<u>400</u>	
			12,100	
Quintard	315-317	clothes	3,000	100
		other	<u>1,600</u>	
			4,600	
Main	3189-3205	liquor	2,250	100
		gas	<u>3,000</u>	
			5,250	
Main	2620	Bar	<u>400</u>	100
			400	
Main	2514-2528	Market	3,600	100
		Food	2,500	
		Furniture	<u>7,200</u>	
			13,300	
Orange	531 +	food	3,000	100
		gas	4,000	
		auto	<u>3,600</u>	
			10,600	

Table A-6  
 EXISTING RETAIL CENTERS AND BUSINESSES  
 MARKET CHARACTERISTICS  
 (continued)

FREESTANDING BUSINESS BY BLOCK

<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
Beyer	130	gas	<u>2,000</u> 2,000	100
Bay	1031-1095	Furniture	<u>26,651</u> 26,651	100

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Source: CIC Research, Inc.

Figure A-2

LOCATION OF EXISTING  
MAJOR RETAIL CENTERS

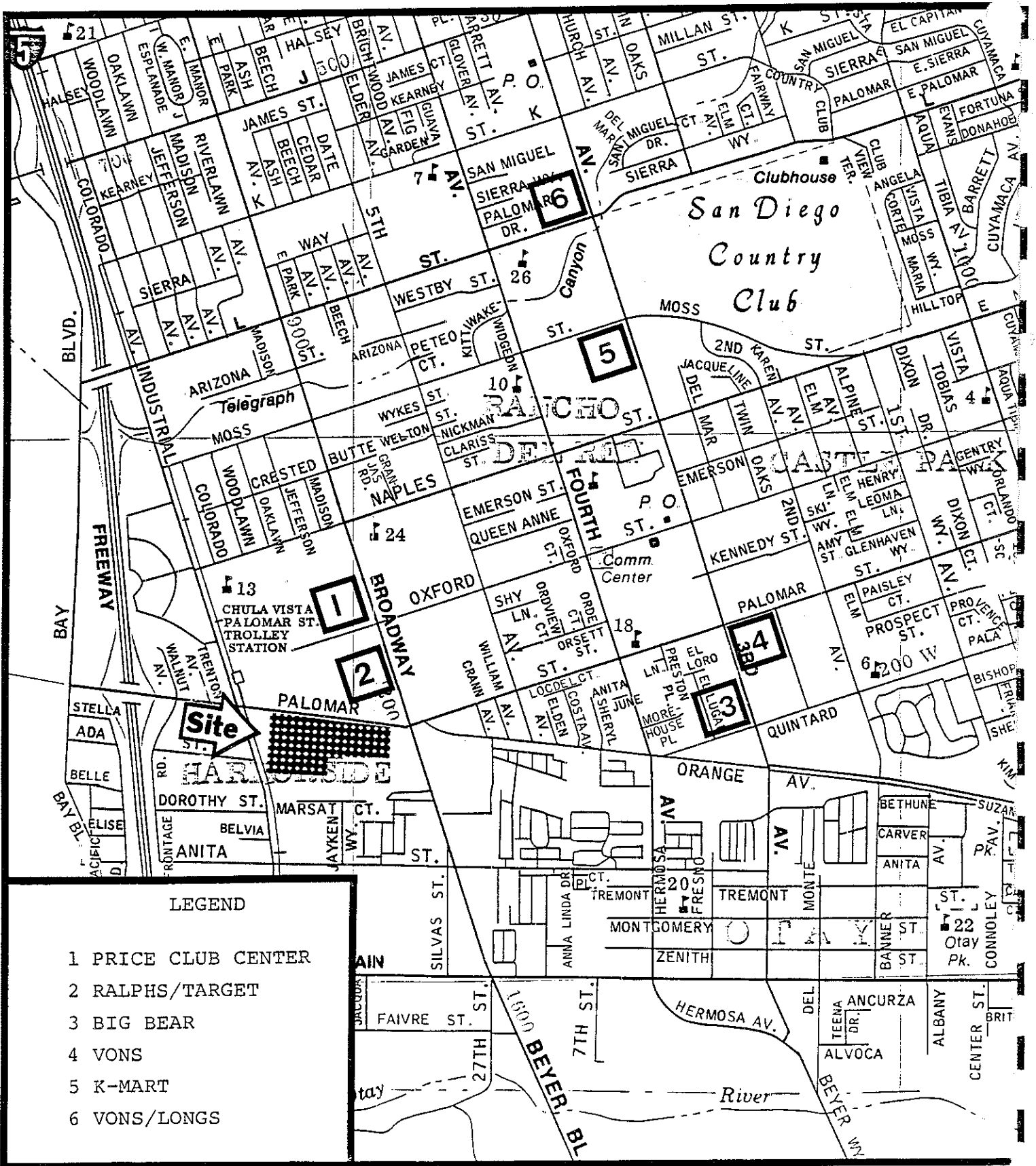




Table A-7  
 PLANNED OR UNDER CONSTRUCTION RETAIL DEVELOPMENTS

<u>Development</u>	<u>Location</u>	<u>Expected Tenant Types</u>	<u>Sq. Ft.</u>	<u>Project Status</u>
Price Club Center	Broadway & Oxford	Retail	10,840	N/A
Broadway Auto Plaza	1129 Broadway	Auto/Retail	15,000	53% Preleased 12-89 Completion
Hermosa Plaza	N.E. Crn. at Main & Third	Retail	8,000	80% Preleased 1/90 Completion
Genesis Square	N.W. Crn. of Broadway and Palomar	Retail	26,720	26% preleased
N/A	1053 Broadway	Retail	22,000	Under Construction
Palomar Village	693 Palomar	Retail Pads	6,000	Proposed
Naples Center	1111 Broadway	Retail	5,590	Under Construction

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Source: Chula Vista Planning Department  
 Area Commercial Brokers  
 CIC Research, Inc., 1989

LISTING OF STATE BOARD OF EQUALIZATION CATEGORIES  
 FOR APPENDIX A  
 (Refer to Table A-8)

TYPE OF BUSINESS	<u>S.B.E. GROUP</u>
(NON-TAXABLE BUSINESSES, VACANCIES)	
APPAREL STORES	1
GENERAL MERCHANDISE STORES	2
DRUG STORES	3
FOOD STORES	4
PACKAGED LIQUOR STORES	5
EATING & DRINKING PLACES	6
HOME FURNISHINGS AND APPLIANCES	7
BUILDING MATERIALS AND FARM IMPLEMENTS	8
AUTO DEALERS AND SUPPLIES	9
SERVICE STATIONS	10
OTHER RETAIL STORES NOT CLASSIFIED ABOVE	11
BUSINESS AND PERSONAL RETAIL SERVICE	12

MARKET BASE CODES

RESIDENTIAL	R
EMPLOYMENT	E

TABLE A-8  
MONTGOMERY SPECIFIC PLAN RETAIL SPACE  
BY S.B.E. CATEGORIES

NAME	ADDRESS	CENTER TYPE	TYPE RETAIL	MARKET BASE	SBE GROUP	DIMENSIONS (IN FEET)		
						LENGT	DEPTH SQUARE FEET	
NAPLES CENTER	1111 BROADWAY	STRIP	AIR FORCE			40	64	2,580
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	BANK			55	67	3,685
PLAZA DEL REY	1223 THIRD	STRIP	CABLE ADMIN.			30	45	1,350
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	CHURCH			25	40	1,000
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	CHURCH			30	40	1,200
NAPLES PLAZA	1090 THIRD	STRIP	CHURCH			50	50	2,500
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	CITY OFFICE			240	100	24,000
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	CLINIC			25	60	1,500
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	COLLEGE			150	100	15,000
1038-1044 BROADWAY	1038-1044 BROADWAY	STRIP	CONSTRUCTION			20	50	1,000
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DOCTOR			25	60	1,500
PLAZA DEL REY	1223 THIRD	STRIP	DOCTOR			25	45	1,125
MAIN CENTER	1680 BROADWAY	MIXED USE	DOCTOR			18	60	1,080
MAIN CENTER	1680 BROADWAY	MIXED USE	DOCTOR			70	70	4,900
CAPE COD CENTER	985 BROADWAY	STRIP	DOCTOR			32	42	1,344
1010 BROADWAY	1010 BROADWAY	MIXED USE	FINANCE			40	43	1,720
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	FINANCE			17	67	1,139
CAPE COD CENTER	985 BROADWAY	STRIP	FINANCIAL			32	42	1,344
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED-USE	INSURANCE			40	40	1,600
BROADWAY POINT	1177 BROADWAY	STRIP	INSURANCE			17	58	952
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	INSURANCE			30	30	900
MAIN CENTER	1680 BROADWAY	MIXED USE	INSURANCE			18	40	720
MAIN CENTER	1680 BROADWAY	MIXED USE	INSURANCE			22	40	880
1592 THIRD AVENUE	1592 THIRD AVENUE	CONVENIENCE	LIBRARY			60	40	2,400
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	NEWSPAPER			30	30	900
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	OFFICE			30	50	1,500
MAIN CENTER	1680 BROADWAY	MIXED USE	OFFICE			24	40	960
BROADWAY POINT	1680 BROADWAY	FREESTANDING	OPTICIAN			40	20	800
CASTLE PARK	1177 BROADWAY	STRIP	POST OFFICE			20	58	1,120
1315 THIRD	1315 THIRD	NEIGHBORHOOD	POST OFFICE			25	67	1,675
1384 THIRD AVENUE	1384 THIRD AVENUE	FREESTANDING	REAL ESTATE			25	50	1,250
1592 THIRD AVENUE	1592 THIRD AVENUE	CONVENIENCE	REAL ESTATE			20	40	800
NAPLES PLAZA	1090 THIRD	STRIP	TAX			25	45	1,125
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	TAX			30	35	1,050
MAIN CENTER	1680 BROADWAY	MIXED USE	TAX			18	40	720
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED-USE	TAX SERVICE			50	40	2,000
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	VET			25	60	1,500
1038-1044 BROADWAY	1038-1044 BROADWAY	STRIP	VETERINARIAN			20	50	1,000
NON-RETAIL TOTAL								
							91,799	
1010 BROADWAY	1000 BROADWAY	FREESTANDING	VACANT			40	40	1,600
1010 BROADWAY	1010 BROADWAY	MIXED USE	VACANT			20	43	860
1010 BROADWAY	1010 BROADWAY	MIXED USE	VACANT			20	43	860
1100 BROADWAY	1100 BROADWAY	MIXED USE	VACANT			20	43	860
NAPLES CENTER	1111 BROADWAY	FREESTANDING	VACANT			30	100	3,000
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			64	137	8,788
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			60	64	3,840
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			20	64	1,280
NAPLES CENTER	1111 BROADWAY	STRIP	VACANT			23	60	1,380
BROADWAY POINT	1111 BROADWAY	STRIP	VACANT			20	64	1,280
BROADWAY POINT	1177 BROADWAY	STRIP	VACANT			23	58	1,288
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	VACANT			25	56	1,400
1180 THIRD	1180 THIRD	STRIP	VACANT			25	60	1,500

MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	VACANT	75	50	3,750
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	VACANT	20	40	800
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	VACANT	16	40	640
PLAZA DEL REY	1223 THIRD	STRIP	VACANT	25	45	1,125
PALOMAR SQUARE	1355 BROADWAY	STRIP	VACANT	18	55	990
PALOMAR SQUARE	1355 BROADWAY	STRIP	VACANT	60	50	3,000
PALOMAR SQUARE	1385 BROADWAY	STRIP	VACANT	60	50	3,000
ORANGE PLAZA	1445-1447 THIRD	CONVENIENCE	VACANT			12,000
SOMMERSSET PLAZA WEST	1610-1600 BROADWAY	STRIP	VACANT			52,028
MAIN CENTER	1680 BROADWAY	MIXED USE	VACANT	24	60	1,440
MAIN CENTER	1700 BROADWAY	MIXED USE	VACANT	42	40	1,680
	1700 BROADWAY	FREESTANDING	VACANT	40	40	1,600
	1700 BROADWAY	FREESTANDING	VACANT	42	40	1,680
251 PALOMAR	251 PALOMAR STREET	SPECIALTY	VACANT	25	60	1,500
	300 PALOMAR STREET	FREESTANDING	VACANT	60	10	600
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	50	50	2,500
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	34	40	1,360
PALOMAR PLAZA	303-315 PALOMAR	SPECIALTY	VACANT	40	50	2,000
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	VACANT	52	52	2,704
PALOMAR VILLAGE	693 PALOMAR STREET	SPECIALTY	VACANT			8,272
CAL-STORE PLAZA	970 BROADWAY	SPECIALTY	VACANT	88	40	3,440
CAPE COD CENTER	985 BROADWAY	STRIP	VACANT	32	42	1,344
CAPE COD CENTER	985 BROADWAY	STRIP	VACANT	70	42	2,940
PACIFIC COAST COLLEGE	251 PALOMAR	MIXED USE	VACANT RETAIL	35	100	3,500
VACANT TOTAL						142,707

PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SHOES	1	24	1,200
BIG BEAR	1340 THIRD	NEIGHBORHOOD	CLOTHES	1	25	1,250
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	48	2,400
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	100	5,200
	1099 THIRD AVENUE	FREESTANDING	SHOES	1	40	2,000
BROADWAY POINT	1177 BROADWAY	STRIP	CLOTHES	1	60	3,000
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	15	750
MAIN CENTER	1680 BROADWAY	MIXED USE	BOOTS	1	86	3,440
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	SHOES	1	31	1,550
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	ROUTIQUE	1	25	1,250
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	17	850
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	60	3,000
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	SHOES	1	43	2,150
1084 THIRD AVENUE	1084 THIRD AVENUE	STRIP	SHOES	1	20	1,000
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SHOES	1	23	1,150
	315 QUINTARD	FREESTANDING	CLOTHING	1	60	3,000
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200
1084 THIRD AVENUE	1084 THIRD AVENUE	STRIP	CLOTHES	1	30	1,500
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	52	2,600
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	CLOTHES	1	40	2,000
PALOMAR VILLAGE	693 PALOMAR STREET	SPECIALTY	CLOTHING	1	59	2,950
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	28	1,400
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	CLOTHES	1	44	2,180
1120 THIRD CENTER	1120 THIRD AVENUE	STRIP	CLOTHING	1	30	1,500
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	CLOTHES	1	28	1,400
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	CLOTHES	1	24	1,200
OXFORD SQUARE	1185 THIRD AVENUE	FREESTANDING	SHOE	1	20	1,000
RALPH'S CENTER	1215 BROADWAY	SPECIALTY	CLOTHES	1	40	2,000
GLAD INDUSTRIAL PARK	2488 MAIN	COMMUNITY INDUSTRIAL	CLOTHES	1	40	2,000
APPAREL TOTAL						74,055
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	DISCOUNT	2	89	8,188

PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	DISCOUNT	R	44	50	2,200
BIG BEAR	1340 THIRD	NEIGHBORHOOD	DISCOUNT	R	2	100	5,000
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	PIC N SAVE	R	2	157	27,475
PRICE CLUB CENTER	1144 BROADWAY	COMMUNITY	PRICE CLUB	R	2	200	116,800
	1030 THIRD	FREESTANDING	K-MART	R	2	389	100,382
RALPH'S CENTER	1747 BROADWAY	FREESTANDING	THRIFT	R	2	150	22,500
	1210 BROADWAY	COMMUNITY	TARGET	R	2	325	105,625
GENERAL MERCHANDISE TOTAL							
387,950							

LONGS/VONS CENTER	880 THIRD	NEIGHBORHOOD	DRUG	R	3	175	130	22,750
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	DRUG	R	3	118	150	17,850
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DRUG	R	3	25	60	1,500
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	DRUG	R	3	30	35	1,050
DRUG STORE TOTAL								
43,150								

BROADWAY POINT	1177 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	17	56	952
OLD HANDBALL COURT	1300 BROADWAY	FREESTANDING	7-11	E	4	50	40	2,000
SMALL WORLD VILLAGE	1550 BROADWAY	OFFICE	DELI	E	4			750
	1418 BROADWAY	MIXED USE	DELI	E	4	20	20	400
	700 PALOMAR	FREESTANDING	CONVENIENCE	E	4	60	40	2,400
PALOMAR SQUARE	1700 BROADWAY	FREESTANDING	AM PM	E	4	40	50	2,000
	NW CORNER THIRD/MAIN	FREESTANDING	MARKET	E	4	90	90	8,100
	1355 BROADWAY	FREESTANDING	AM/PM	E	4	60	50	3,000
	2578 MAIN	STRIP	DONUT	E	4	20	50	1,000
	1085 BAY BOULEVARD	CONVENIENCE	DELI	E	4	40	50	2,000
		INDUSTRIAL	DELI	E	4	20	82	1,640
EMPLOYMENT FOOD STORE TOTAL								
24,242								

LONGS/VONS CENTER	1601 THIRD AVENUE	FREESTANDING	DONUT	R	4	30	50	1,500
	880 THIRD	NEIGHBORHOOD	ICE CREAM	R	4	22	60	1,320
	NW CORNER ORANGE/HILLTOP	FREESTANDING	7/11	R	4	80	50	3,000
OXFORD SOUTH CENTER	1450 THIRD	FREESTANDING	CONVENIENCE	R	4	50	50	2,500
1010 BROADWAY	1200 THIRD AVENUE	STRIP	FOOD	R	4	30	35	1,050
PAC. COMMERCE BANK PLAZA	1010 BROADWAY	CONVENIENCE	CONVENIENCE	R	4	60	43	2,580
	1180 THIRD	STRIP	ICE CREAM	R	4	25	60	1,500
	1609 THIRD	FREESTANDING	FRUIT	R	4	30	40	1,200
NAPLES PLAZA	1415 THIRD AVENUE	FREESTANDING	WOO CHEE CHONG	R	4	80	100	8,000
BIG BEAR	1090 THIRD	STRIP	PRODUCE	R	4	30	50	1,500
PRICE CLUB CENTER	1340 THIRD	NEIGHBORHOOD	GROCERY	R	4	30	50	1,500
	1144 BROADWAY	SPECIALTY	CANDY	R	4	14	50	700
	1000 BROADWAY	FREESTANDING	BUTCHER SHOP	R	4	60	30	1,800
ARCH PLAZA	1037 BROADWAY	STRIP	ICE CREAM	R	4	19	40	700
	PALOMAR/THIRD	FREESTANDING	DONUT	R	4	30	50	1,500
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BUTCHER	R	4	48	50	2,400
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	DELI	R	4	30	60	1,800
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	GROCERY	R	4	50	35	1,750
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	RALPH'S	R	4	170	325	55,250
CASTLE PARK	1315 THIRD	NEIGHBORHOOD	GROCERY	R	4	157	213	33,441
	1087 BROADWAY	FREESTANDING	7-11	R	4	50	60	3,000
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	BAKERY	R	4	30	35	1,050
	1310 THIRD AVENUE	FREESTANDING	COUNTRY GROCERY	R	4	50	40	2,000
NAPLES PLAZA	1090 THIRD	STRIP	DELI	R	4	60	45	2,700
LONGS/VONS CENTER	880 THIRD	NEIGHBORHOOD	VONS	R	4	170	130	22,100
1592 THIRD AVENUE	1592 THIRD AVENUE	CONVENIENCE	7-11	R	4	80	40	2,400
	2514 MAIN	FREESTANDING	MARKET	R	4	60	80	3,600
	1085 BAY BOULEVARD	INDUSTRIAL	DESSERT	R	4	20	82	1,640
FOOD STORE TOTAL								
188,051								

1034 THIRD AVENUE	3189 MAIN	FREESTANDING	LIQUOR	R	5	45	50	2,250
PALOMAR SQUARE	1034 THIRD AVENUE	STRIP	LIQUOR	R	5	50	40	2,000
NAPLES PLAZA	1355 BROADWAY	STRIP	LIQUOR	R	5	40	116	4,040
PLAZA DEL REY	1090 THIRD	STRIP	LIQUOR	R	5	25	50	1,250
	1223 THIRD	STRIP	LIQUOR	R	5	40	45	1,800
PACKAGED LIQUOR TOTAL								11,940

TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	52	2,000
CAPE COD CENTER	985 BROADWAY	STRIP	FAST FOOD	E	6	20	42	840
	1187 BROADWAY	FREESTANDING	RESTAURANT	E	6	50	90	4,500
CAPE COD CENTER	985 BROADWAY	STRIP	TACO	E	6	41	42	1,722
1100 BROADWAY	1100 BROADWAY	FREESTANDING	PIZZA	E	6	50	90	4,500
MAIN CENTER	1680 BROADWAY	MIXED USE	RESTAURANT	E	6	50	100	5,000
PALOMAR SQUARE	1355 BROADWAY	STRIP	KFC	E	6	50	80	4,000
	THIRD/MONTGOMERY	FREESTANDING	FAST FOOD	E	6	30	45	1,350
BROADWAY POINT	1177 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
	975 BROADWAY	FREESTANDING	RESTAURANT	E	6	40	60	2,400
	1300 BROADWAY	FREESTANDING	RESTAURANT	E	6	60	100	6,000
	1500 BROADWAY	FREESTANDING	RESTAURANT	E	6	40	30	1,200
251 PALOMAR	251 PALOMAR STREET	FREESTANDING	RESTAURANT	E	6	50	60	3,000
BROADWAY POINT	300 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	70	3,500
PALOMAR SQUARE	1177 BROADWAY	FREESTANDING	FAST FOOD	E	6	60	56	3,360
	1355 BROADWAY	STRIP	RESTAURANT	E	6	40	100	4,000
	1636 THIRD	STRIP	JACK IN THE BOX	E	6	40	60	2,400
MAIN CENTER	1680 BROADWAY	FREESTANDING	PIZZA	E	6	18	40	720
	1685 THIRD	MIXED USE	FAST FOOD	E	6	30	50	1,500
MAIN CENTER	1282 THIRD AVENUE	FREESTANDING	FAST FOOD	E	6	50	70	3,500
BROADWAY POINT	1680 BROADWAY	FREESTANDING	RESTAURANT	E	6	26	60	1,560
251 PALOMAR	1177 BROADWAY	MIXED USE	FAST FOOD	E	6	20	58	1,120
	251 PALOMAR STREET	STRIP	PIZZA	E	6	25	60	1,500
	2328 MAIN	SPECIALTY	RESTAURANT	E	6	50	50	2,500
	2540 MAIN	FREESTANDING	FAST FOOD	E	6	40	40	1,600
	2578 MAIN	CONVENIENCE	FAST FOOD	E	6	20	50	1,000
		CONVENIENCE	FAST FOOD	E	6	20	50	1,000
EMPLOYMENT EATING AND DRINKING TOTAL								66,492

RALPH'S CENTER	1210 BROADWAY	COMMUNITY	RESTAURANT	R	6	60	90	5,400
	1060 BROADWAY	FREESTANDING	RESTAURANT	R	6	100	60	6,000
PACIFIC COAST COLLEGE	1111 THIRD AVENUE	FREESTANDING	BAR	R	6	25	40	1,000
	251 PALOMAR	MIXED USE	FAST FOOD	R	6	35	60	2,100
1034 THIRD AVENUE	1121 THIRD AVENUE	FREESTANDING	BAR	R	6	40	75	3,000
ARCH PLAZA	1034 THIRD AVENUE	STRIP	BAR	R	6	60	40	2,400
1034 THIRD AVENUE	1037 BROADWAY	STRIP	RESTAURANT	R	6	40	40	1,600
PALOMAR PLAZA	303-315 PALOMAR	STRIP	FAST FOOD	R	6	25	40	1,000
	1300 THIRD AVENUE	SPECIALTY	RESTAURANT	R	6	40	40	1,600
	1141 THIRD AVENUE	FREESTANDING	RESTAURANT	R	6	40	100	4,000
PLAZA DEL REY	1223 THIRD	STRIP	BAR	R	6	50	50	2,500
1120 THIRD CENTER	1120 THIRD AVENUE	STRIP	FAST FOOD	R	6	30	45	1,350
	1049 THIRD AVENUE	STRIP	FAST FOOD	R	6	50	40	2,000
BIG BEAR	1340 THIRD	FREESTANDING	FAST FOOD	R	6	50	50	2,500
	1314 THIRD AVENUE	NEIGHBORHOOD	PIZZA	R	6	25	100	2,500
1100 BROADWAY	1100 BROADWAY	FREESTANDING	BAR	R	6	30	40	1,200
MAIN CENTER	1680 BROADWAY	FREESTANDING	BAR	R	6	50	50	2,500
PALOMAR SQUARE	1355 BROADWAY	MIXED USE	CLUB	R	6	95	60	5,700
	1032 THIRD AVENUE	STRIP	FAST FOOD	R	6	20	116	2,320
PRICE CLUB CENTER	1144 BROADWAY	FREESTANDING	CAFETERIA	R	6	120	60	7,200
MAIN CENTER	1680 BROADWAY	SPECIALTY	FAST FOOD	R	6	20	50	1,000
		MIXED USE	BAR	R	6	87	60	5,220



TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	STEREO	R	7	28	52	1,456
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	STEREO	R	7	36	50	1,800
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	TV	R	7	40	50	2,000
RALPH'S CENTER	1210 BROADWAY	COMMUNITY	STEREO	R	7	91	117	10,647
NAPLES PLAZA	1090 THIRD	STRIP	TV	R	7	40	45	1,800
1068-1082 BROADWAY	1068-1082 BROADWAY	SPECIALTY	POOL SUPPLIES	R	7	15	40	600
	1033 THIRD	FREESTANDING	FURNITURE	R	7	100	258	25,800
	2516 MAIN	FREESTANDING	FURNITURE	R	7	120	60	7,200
	2578 MAIN	CONVENIENCE	TV	R	7	20	50	1,000
	1055 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	100	100	10,000
	1031 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	25	56	1,400
	1095 BAY BOULEVARD	INDUSTRIAL	FURNITURE	R	7	101	151	15,251
AMERICAN DESIGN CENTER	1068 INDUSTRIAL BLVD	MIXSD USE	CARPET	R	7	35	40	1,400
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HOME FURNISHING TOTAL								204,860

PALOMAR VILLAGE	683 PALOMAR STREET	SPECIALTY	PAINT	R	8	47	100	4,700
1068-1082 BROADWAY	1068-1082 BROADWAY	SPECIALTY	HARDWARE	R	8	60	40	2,400
1068-1082 BROADWAY	1068-1082 BROADWAY	SPECIALTY	HARDWARE	R	8	30	40	1,200
PRICE CLUB CENTER	1144 BROADWAY	COMMUNITY	HOME CLUB	R	8	487	235	114,445
BIG BEAR	1340 THIRD	NEIGHBORHOOD	HARDWARE	R	8	153	201	30,753
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BUILDING MATERIALS TOTAL								153,408

BROADWAY POINT	1177 BROADWAY	STRIP	AUTO PARTS	R	9	14	50	784
1100 BROADWAY	1100 BROADWAY	FREESTANDING	AUTO DEALERS	R	9			0
RALPH'S CENTER	1600 BROADWAY	FREESTANDING	AUTO SALES	R	9			0
	1210 BROADWAY	COMMUNITY	AUTO TIRES	R	9	50	110	5,500
SMALL WORLD VILLAGE	531 ORANGE	FREESTANDING	AUTO PARTS	R	9	60	60	3,600
1034 THIRD AVENUE	1418 BROADWAY	MIXED USE	AUTO	R	9	20	30	600
914 THIRD AVENUE	1034 THIRD AVENUE	STRIP	AUTO PARTS	R	9	50	40	2,000
	914 THIRD AVENUE	STRIP	AUTO GLASS	R	9	50	20	1,000
1068-1082 BROADWAY	1001 BROADWAY	FREESTANDING	AUTO DEALER	R	9			0
	1068-1082 BROADWAY	SPECIALTY	AUTO PARTS	R	9	15	40	600
JEROMES	908 THIRD AVENUE	FREESTANDING	AUTO PARTS	R	9	50	110	5,500
GLAD INDUSTRIAL PARK	1385 THIRD	NEIGHBORHOOD	AUTO	R	9	30	80	2,400
GLAD INDUSTRIAL PARK	2488 MAIN	INDUSTRIAL	AUTO PARTS	R	9	40	35	1,400
	2488 MAIN	INDUSTRIAL	AUTO PARTS	R	9	63	81	5,103
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AUTO DEALERS AND SUPPLIES TOTAL								28,487

SW CORNER ORANGE/HILLTOP		FREESTANDING	GAS STATION	R	10	80	50	4,000
1000 THIRD AVENUE	1000 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	50	40	2,000
1291 THIRD AVENUE	1291 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	40	40	1,600
3205 MAIN	3205 MAIN	FREESTANDING	GAS STATION	R	10	60	50	3,000
130 BEYER WAY	130 BEYER WAY	FREESTANDING	GAS STATION	R	10	50	40	2,000
802 THIRD AVENUE	802 THIRD AVENUE	FREESTANDING	GAS STATION	R	10	50	40	2,000
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SERVICE STATION TOTAL								14,600

BROADWAY POINT	1177 BROADWAY	STRIP	GIFT	R	11	19	56	1,004
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED-USE	COMPUTER	R	11	50	40	2,000
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BABY	R	11	30	50	1,500
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	PET	R	11	30	40	1,200
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	GIFTS	R	11	12	50	600
NAPLES PLAZA	1090 THIRD	STRIP	PARTY GOODS	R	11	25	50	1,250
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	SUNGLASSES	R	11	40	50	2,000
NAPLES PLAZA	1090 THIRD	STRIP	PET	R	11	40	45	1,800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	FLOWERS	R	11	17	50	850



TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	PET	R	11	31	52	1,612
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	OFFICE SUPPLIES	R	11	50	60	3,000
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	JEWELRY	R	11	23	52	1,196
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	PET	R	11	30	60	1,800
MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	MUSIC STORE	R	11	50	50	2,500
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	BOOKS	R	11	30	60	1,800
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	COMPUTER	R	11	26	52	1,352
PAC. COMMERCE BANK PLAZA	1180 THIRD	STRIP	GIFTS	R	11	50	60	3,000
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	GLASSES	R	11	20	40	800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	JEWELRY	R	11	24	50	1,200
SMALL WORLD VILLAGE	1418 BROADWAY	MIXED USE	GIFT	R	11	20	20	400
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	ART	R	11	30	50	1,500
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	BIKE SHOP	R	11	40	70	2,800
PRICE CLUB CENTER	1144 BROADWAY	SPECIALTY	PET	R	11	26	50	1,300
251 PALOMAR	1185 THIRD AVENUE	FREESTANDING	TOY	R	11	20	40	800
	251 PALOMAR STREET	SPECIALTY	FLOWER	R	11	25	60	1,500
CAL-STORE PLAZA	1193 BROADWAY	FREESTANDING	TOY	R	11	72	100	7,200
	1324 THIRD AVENUE	FREESTANDING	BASEBALL CARDS	R	11	25	50	1,250
BROADWAY POINT	1700 BROADWAY	SPECIALTY	SPORTS	R	11	75	231	17,325
	1177 BROADWAY	FREESTANDING	VIDEO	R	11	42	40	1,680
TROLLEY SQUARE	317 QUINTARD	STRIP	COMPUTER	R	11	56	80	4,480
	651 PALOMAR STREET	FREESTANDING	FLORIST	R	11	40	40	1,600
PALOMAR VILLAGE	914 THIRD AVENUE	SPECIALTY	JEWELRY	R	11	28	52	1,352
TROLLEY SQUARE	693 PALOMAR STREET	FREESTANDING	JEWELRY	R	11	20	20	400
1324 THIRD AVENUE	651 PALOMAR STREET	SPECIALTY	COMPUTER	R	11	50	45	2,250
	1324 THIRD AVENUE	SPECIALTY	PARTY	R	11	58	52	3,008
1324 THIRD AVENUE	1079 THIRD AVENUE	STRIP	PET STORE	R	11	25	50	1,250
	1324 THIRD AVENUE	FREESTANDING	SEWING	R	11	40	40	1,600
LONGS/VONS CENTER	880 THIRD	STRIP	TROPHY	R	11	25	50	1,250
PALOMAR SQUARE	1355 BROADWAY	NEIGHBORHOOD	GIFT	R	11	20	34	680
PLAZA DEL REY	1223 THIRD	STRIP	VIDEO	R	11	55	116	6,380
BROADWAY POINT	1177 BROADWAY	STRIP	GIFT	R	11	25	45	1,125
1010 BROADWAY	1010 BROADWAY	MIXED USE	VIDEO	R	11	18	56	1,064
TROLLEY SQUARE	651 PALOMAR STREET	SPECIALTY	MUSIC	R	11	50	52	2,600
1010 BROADWAY	1010 BROADWAY	MIXED USE	VIDEO	R	11	48	52	2,496
OXFORD SQUARE	1215 BROADWAY	SPECIALTY	BABY	R	11	20	43	860
1011-1029 THIRD AVENUE	1011-1029 THIRD AVENUE	MIXED USE	DMV SERVICE	R	11	20	43	860
	1407 THIRD AVENUE	SPECIALTY	VIDEO	R	11	80	40	3,200
1034 THIRD AVENUE	1034 THIRD AVENUE	STRIP	ANTIQUES	R	11	20	45	900
MAIN CENTER	1680 BROADWAY	FREESTANDING	KEY SHOP	R	11	50	40	2,000
NAPLES PLAZA	1090 THIRD	STRIP	COMPUTER	R	11	30	40	1,200
PALOMAR SQUARE	1355 BROADWAY	MIXED USE	TOY STORE	R	11	18	40	720
	1085 BAY BOULEVARD	STRIP	VIDEO	R	11	25	45	1,125
AMERICAN DESIGN CENTER	1085 BAY BOULEVARD	FREESTANDING	COLOR TILE	R	11	80	50	4,000
AMERICAN DESIGN CENTER	1008 INDUSTRIAL BLVD.	STRIP	JEWELRY	R	11	20	50	1,000
GLAD INDUSTRIAL PARK	1008 INDUSTRIAL BLVD.	INDUSTRIAL	CANOEES	R	11	20	82	1,640
GLAD INDUSTRIAL PARK	2488 MAIN	INDUSTRIAL	BOATS	R	11	60	82	4,920
GLAD INDUSTRIAL PARK	2488 MAIN	MIXED USE	BEAUTY	R	11	35	20	700
	2488 MAIN	MIXED USE	TOYS	R	11	90	32	2,880
	2488 MAIN	INDUSTRIAL	SUPPLY	R	11	40	68	2,720
	2488 MAIN	INDUSTRIAL	ART	R	11	45	35	1,575
		INDUSTRIAL	STEREO	R	11	25	35	875
OTHER RETAIL TOTAL								
128,189								
NAPLES CENTER	1300 BROADWAY	FREESTANDING	DRY CLEANING	E	12	50	40	2,000
EMPLOYMENT BUSINESS AND PERSONAL RETAIL SERVICE	1111 BROADWAY	STRIP	PRINT	E	12	21	64	1,344
1010 BROADWAY	1010 BROADWAY	MIXED USE	LAUNDRY	R	12	42	48	1,932
1562 THIRD AVENUE	1562 THIRD AVENUE	FREESTANDING	LAUNDROMAT	R	12	40	90	3,600
3,344								

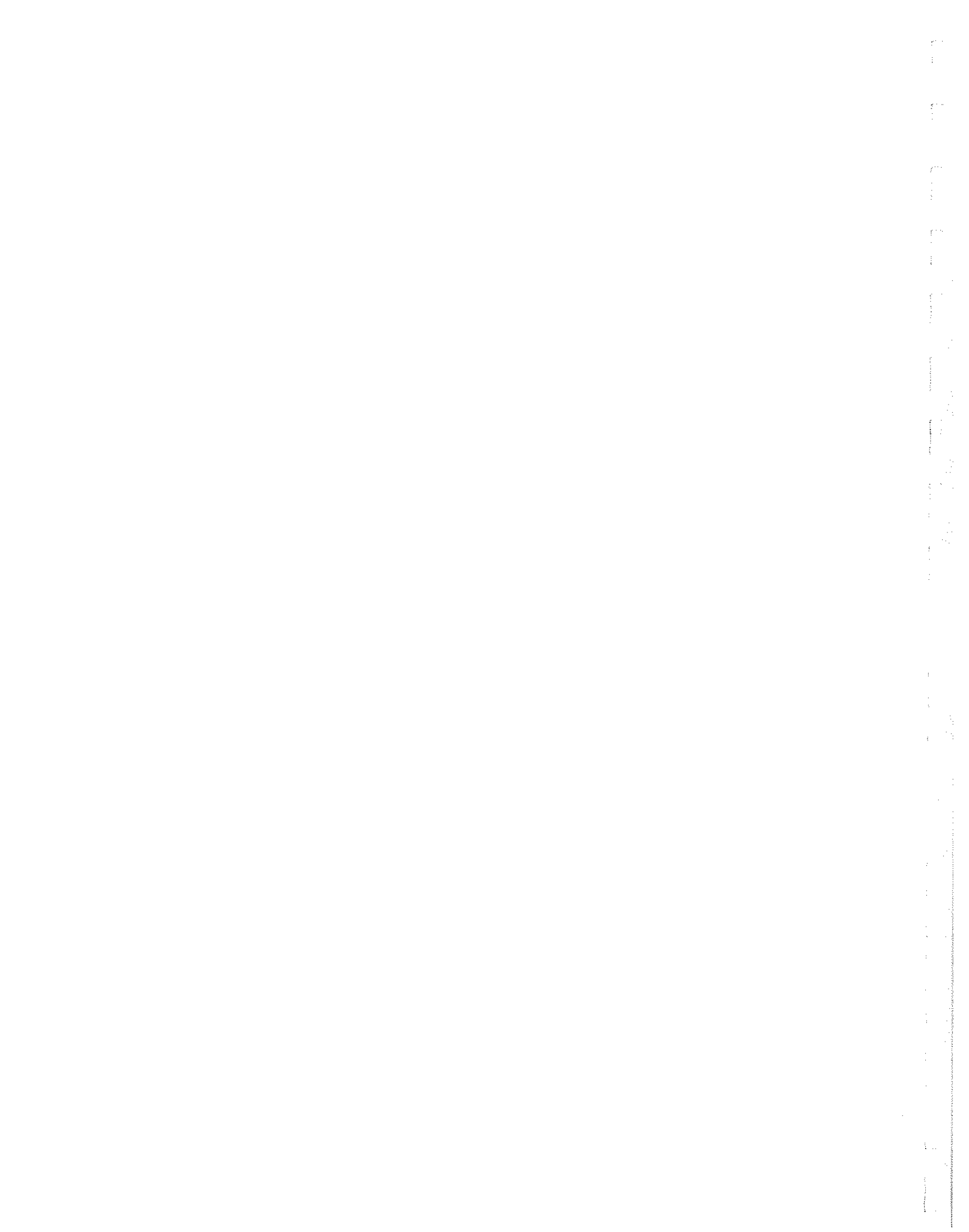
1034 THIRD AVENUE	STRIP	HAIR	R	12	30	40	1,200
914 THIRD AVENUE	STRIP	DRIVING SCHOOL	R	12	20	20	400
1034 THIRD AVENUE	STRIP	CLEANERS	R	12	30	40	1,200
ARCH PLAZA	STRIP	TRAVEL	R	12	20	50	1,000
PALOMAR SQUARE	STRIP	PRINT	R	12	20	55	1,100
PAC. COMMERCE BANK PLAZA	STRIP	KARATE	R	12	25	60	1,500
1038-1044 BROADWAY	STRIP	PRINTING	R	12	20	50	1,000
ARCH PLAZA	STRIP	HAIR	R	12	20	40	800
1011-1029 THIRD AVENUE	STRIP	PRINTING	R	12	40	45	1,800
BIG BEAR	NEIGHBORHOOD	HAIR	R	12	30	100	3,000
NAPLES PLAZA	STRIP	HAIR	R	12	30	45	1,350
1100 BROADWAY	NEIGHBORHOOD	LAUNDRY	R	12	20	100	2,000
BIG BEAR	FREESTANDING	AUTO REPAIR	R	12	30	120	3,000
BIG BEAR	NEIGHBORHOOD	PHOTO	R	12	20	100	2,000
1120 THIRD CENTER	STRIP	BEAUTY	R	12	30	40	1,200
PRICE CLUB CENTER	STRIP	HAIR	R	12	14	50	700
PLAZA DEL REY	STRIP	HAIR	R	12	25	45	1,125
1430 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	100	5,000
1223 THIRD	STRIP	TV REPAIR	R	12	30	45	1,350
1177 BROADWAY	STRIP	ARCADE	R	12	40	58	2,240
1324 THIRD AVENUE	STRIP	LOCKSMITH	R	12	25	50	1,250
985 BROADWAY	STRIP	HAIR	R	12	20	42	840
984 BROADWAY	FREESTANDING	FEST CONTROL	R	12	40	50	2,000
1318 THIRD AVENUE	FREESTANDING	PRINTING	R	12	30	40	1,200
951 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	90	180	10,200
1315 THIRD	NEIGHBORHOOD	TAILOR	R	12	18	67	1,206
900 BROADWAY	FREESTANDING	MASSAGE	R	12	20	60	1,200
1270 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	30	60	1,800
900 BROADWAY	FREESTANDING	UPIOLSTERY	R	12	20	40	800
251 PALOMAR	MIXED USE	AUTO CENTER	R	12	35	60	2,100
1187 THIRD AVENUE	STRIP	SHOE REPAIR	R	12	25	50	1,250
1700 BROADWAY	FREESTANDING	BARBER	R	12	20	40	800
1315 THIRD	FREESTANDING	CLEANERS	R	12	50	50	2,500
1324 THIRD AVENUE	NEIGHBORHOOD	CLEANERS	R	12	29	67	1,943
1175 THIRD AVENUE	STRIP	INTERIOR DESIGN	R	12	25	50	1,250
1592 THIRD AVENUE	FREESTANDING	TV REPAIR	R	12	50	45	2,250
1315 THIRD	NEIGHBORHOOD	HAIR	R	12	20	40	800
1365 THIRD AVENUE	FREESTANDING	HAIR	R	12	18	67	1,206
1385 THIRD	FREESTANDING	CLEANERS	R	12	20	50	1,000
1034 THIRD AVENUE	NEIGHBORHOOD	HAIR	R	12	25	60	1,500
1139 THIRD AVENUE	STRIP	LAUNDRY	R	12	30	40	1,200
1011-1029 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	40	70	2,800
OXFORD SQUARE	STRIP	HAIR	R	12	25	45	1,125
NAPLES PLAZA	SPECIALTY	TRAVEL	R	12	20	40	800
SMALL WORLD VILLAGE	STRIP	HAIR	R	12	20	40	800
PLAZA DEL REY	MIXED USE	HAIR	R	12	25	45	1,125
1120 THIRD CENTER	STRIP	TRAVEL	R	12	20	20	400
LONGS/VONS CENTER	FREESTANDING	AUTO REPAIR	R	12	25	45	1,125
1120 THIRD AVENUE	STRIP	KARATE	R	12	30	30	900
1103 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	50	40	2,000
982 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	60	3,000
880 THIRD	NEIGHBORHOOD	BEAUTY SALON	R	12	40	50	2,000
900 BROADWAY	FREESTANDING	HAIR	R	12	15	60	900
1063 THIRD AVENUE	FREESTANDING	AUTO BODY	R	12	20	60	1,200
1700 BROADWAY	FREESTANDING	PLUMBING	R	12	50	40	2,000
1055 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	60	15	900
1643 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
1052 BROADWAY	FREESTANDING	PHOTO	R	12	50	50	2,500
1034 THIRD AVENUE	STRIP	HAIR	R	12	30	40	1,200
1036 BROADWAY	FREESTANDING	UPHOLSTERY	R	12	40	30	1,200
1068-1082 BROADWAY	SPECIALTY	PRINT	R	12	20	40	800
1000 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	40	60	2,400
1223 THIRD	STRIP	HAIR	R	12	25	45	1,125

LONGSVONS CENTER	880 THIRD	NEIGHBORHOOD	CLEANERS	R	12	24	60	1,440
1324 THIRD AVENUE	1324 THIRD AVENUE	STRIP	BEAUTY	R	12	25	50	1,250
OXFORD SOUTH CENTER	1200 THIRD AVENUE	STRIP	HAIR	R	12	30	35	1,050
ONFORD SOUTH CENTER	1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	42	40	1,980
PALOMAR SQUARE	1200 THIRD AVENUE	STRIP	PRINTING	R	12	40	50	2,000
MUSIC MART PLAZA	1355 BROADWAY	STRIP	BEAUTY	R	12	20	50	1,000
MUSIC MART PLAZA	1181 BROADWAY	SPECIALTY	HAIR	R	12	23	50	1,250
	THIRD/MONTGOMERY	FREESTANDING	AUTO REPAIR	R	12	50	80	4,000
	1181 BROADWAY	SPECIALTY	AUTO REPAIR	R	12	50	50	2,500
	1580 THIRD AVENUE	FREESTANDING	TRANSMISSION	R	12	20	70	1,400
	879 PALOMAR	FREESTANDING	AUTO REPAIR	R	12	40	40	1,600
	1100 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	40	60	2,400
	NAPLES PLAZA	STRIP	LAUNDRY	R	12	70	45	3,150
	TROLLEY SQUARE	SPECIALTY	HAIR	R	12	15	52	780
	651 PALOMAR STREET	MIXED USE	HAIR	R	12	35	20	700
	AMERICAN DESIGN CENTER	INDUSTRIAL	PEST CONTROL	R	12	68	35	2,310
	GLAD INDUSTRIAL PARK	CONVENIENCE	PRINT	R	12	40	40	1,600
	2540 MAIN							
BUSINESS AND PERSONAL RETAIL SERVICE								
								150,502
TOTAL OCCUPIED SQUARE FEET								1,718,008



## **SECTION VI**

# **Consultant Identification**



**SECTION VI**  
**CONSULTANT IDENTIFICATION**

This addendum to the Final Focused Environmental Impact Report For The Palomar Trolley Center EIR-89-4M, was prepared by A.D. Hinshaw Associates in conformance with the California Environmental Quality Act (CEQA), as amended (California Public Resources Code Section 21000 et seq.); the CEQA Guidelines, as amended (California Administrative Code Section 15000 et seq.); and the City of Chula Vista EIR Guidelines.

I hereby affirm that to the best of our knowledge and belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated.

  
Philip L. Hinshaw, President  
A.D. Hinshaw Associates





FINAL FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M  
SCH# 89032915

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

July 12, 1989



This document, entitled Final Focused Environmental Impact Report For The Palomar Trolley Center EIR-89-4M, is a "focused EIR" which concentrates on the potentially significant issues involved with the proposed project. Following the issuance of the Notice of Completion (NOC) on March 29, 1989, the Draft EIR was made available for review by the public and public agencies for a 45-day public review period to critique the EIR and gather addition information not contained within the EIR. During the 45-day public review period from March 29, 1989 to May 12, 1989, comments were received from the following persons, organizations, and public agencies:

- . Roger Daoust, Senior Civil Engineer, City of Chula Vista
- . California Department of Transportation, District 11
- . California Public Utilities Commission

The City of Chula Vista Planning Commission held a public hearing on May 24, 1989, to receive additional comments on the Draft EIR. At the conclusion of the public hearing, the Planning Commission voted unanimously to close the public review period.

In response to the additional information and various comments received during the public review period, some changes have been made to the text, figures and tables of the Draft EIR. These changes were made on pages I-4, I-5, I-7, I-8, 5, 6, 17, 21, 29, 30, 31, and 83. Text revisions within the Draft EIR are indicated by ~~Strikeout~~ and Underline.

The following comment letters and responses, and the revised Draft EIR constitute the Final EIR.



May 5, 1989  
File # YE-030

TO: Doug Reid, Environmental Review Coordinator  
FROM: Roger Daoust, Senior Civil Engineer *WD*  
SUBJECT: E.I.R. (Palomar Trolley Center)

Following are the Engineering Department's Comments on the subject E.I.R.:

1. Table 3.1.3, page 21 - Table shall be revised to show ADT's of 12,000 and 7,500 associated with level of service "C" on modified collector and light collector streets respectively. Levels of service A and B for same road classifications shall be revised accordingly.
2. Section 3.1.3.1, Page 29 - Second paragraph shall be revised as shown in attached photocopy to make it consistent with ADT for level of service "C" for Prime Arterial (table 3.1.3) and with the cumulative ADT shown in Figure 3.1.4 of same report.
3. Section 3.1.3.3, page 29 and page 30 - Text shall be revised to make it consistent with the first paragraph of that section that explicitly recommends the relocation of the existing traffic signal at the Palomar/Trolley Station to the main project entry.
4. Section 3.1.3.4, page 30 - Shall indicate that an access easement or agreement is needed to perpetuate the public's right to access.
5. Section 3.1.3.8, page 31 - Shall be revised to read "The project proposes to cul de sac the north end of Jayken Way, south of the project. The final location of location of the cul de sac will be determined in a future stage."
6. Section 3.1.4, page 31 - First paragraph shall be revised to delete the reference to the new circulation element which has not yet been adopted by the City.

7. Page I-5 - Mitigation measure #8 is shown to cul de sac Jayken Way south of the project. No other discussion of this proposal as a mitigation measure is given, nor is a rationale presented to substantiate this proposal. Inasmuch as vacation of the street is proposed some consideration of its value as an access to or across the project site needs to be included. This would appear to be particularly important since a comparison of figures 3.1.4 and 3.1.5 show that traffic on Palomar, Broadway and Industrial are all lowered by virtue of Jayken Way being available.

Table 3.1.7 and paragraphs 5 and 6 on page 26 appear to argue for the provision of this access. The transportation access discussion on page I-4 seems particularly to favor the retention of Jayken Way.

The consideration of a project alternative which provides access through the project site and to the south seems to be clearly indicated.

LdT:jg

(A\MEMOS\PALOTRCT.DOC)

## Roger Daoust's Letter Attachment A

Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS E according to the Roadway Classification Standards contained in the Circulation Elements, as indicated in the Willden report. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus,~~ it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by

Response #1

Table 3.1.3 has been revised to incorporate the new information.

Response #2

Page 29 has been revised as shown on the attachment.

Response #3

Pages 29 and 30 have been revised to be internally consistent.

Response #4

Page 30 has been revised to reflect the comment.

Response #5

The revised wording has been inserted on page 31.

Response #6

Page 31 has been revised to delete the reference to the new Circulation Element.

Response #7

The following additional text has been added to Page 17.

"If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance".

The following additional alternative has been added to Section 4.0 of the Draft EIR (see page 83).

**"4.4 JAYKEN WAY ACCESS**

This alternative assumes that access is provided to the project site from the south via Jayken Way. Currently Jayken Way ends on the south side of the San Diego Gas and Electric easement located adjacent to the southern boundary



of the project site. Thus, the extension of Jayken Way would cross the SDG&E easement to gain access to the project site. A redesign of the building locations and internal circulation (see Site Plan, Figure 2.2.1) would be required to provide for this connection to the south.

#### Transportation/Access

As explained on page 17 of this EIR, if the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance. These differences are presented in Figures 3.1.4 and 3.1.5.

The only intersection Level of Service that would be affected is the Broadway/Palomar Street intersection. As stated on page 26, the LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. If access is also provided to Anita Street via Jayken Way, the Broadway/Palomar Street intersection would operate at LOS B.

#### Community Social Factors

This alternative would have no effect on Community Social Factors.

#### Maintenance of Adopted Growth Management Threshold Standards

This alternative would have no effect on the adopted Threshold Standards."

The following summary of the Jayken Way alternative has been added to page I-7.

"The Jayken Way alternative assumes that access to Anita Street is provided by extending Jayken Way to the southern boundary of the project site. This alternative would not adversely impact the surrounding street network and would increase the Level of Service at the Broadway/Palomar Street intersection from LOS C to LOS B (assuming that dual left turn lanes on east bound Palomar Street are also constructed)."

Memorandum

STATE CLEARINGHOUSE  
ATTENTION Garrett Ashley

Date : May 8, 1989  
File No.: 11-SD-005  
6.8

From : District 11  
DEPARTMENT OF TRANSPORTATION

Subject : DEIR (FOCUSED) FOR THE  
PALOMAR TROLLEY CENTER,  
CHULA VISTA, SCH 89032915

- 8. Pages 29 and 30 - Caltrans District 11 is concerned about potential impacts to the Interstate Route 5 interchange at Palomar Street. Mitigations for those impacts need to be worked out with the City of Chula Vista. Also, trolley patronage directly impacts Interstate 5 and we strongly recommend that existing access for the Palomar Street Trolley Station be maintained or improved.

Our contact person for Interstate Route 5 is Jim Linthicum, District Project Studies Engineer, (619) 237-6952.

  
JAMES T. CHESHIRE, Chief  
Environmental Planning Branch

MO:yg

Response #8

The City of Chula Vista and CALTRANS are currently preparing plans for the reconstruction of the I-5/Palomar Street interchange (see EIR, page 29). The improvements to Palomar Street and its intersections with Industrial Avenue and Broadway will improve traffic flows on Palomar Street. These improvements would not adversely impact the I-5 interchange.

The relocation of the Trolley Station entrance traffic signal would not adversely impact traffic flow in and out of the station. Right-turn in and out access movements are recommended to remain (see Mitigation Measure #3, pg. 29).

## UTILITIES COMMISSION

P.O. BOX 94102  
SAN DIEGO, CALIFORNIA 92102

April 4, 1989

Douglas D. Reid  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Subject: California Public Utilities Commission (CPUC) Response  
to Draft EIR for the Palomar Trolley Center  
(SCH# 89032915)

Dear Mr. Reid,

The California Public Utilities Commission's staff has reviewed the Draft EIR for the above-mentioned project.

9. Please note that if altering at-grade crossings of rail tracks requires authorization of the CPUC. In addition, the CPUC requires that control of signalized intersections within 200 feet of railroad track crossings be pre-empted by train traffic. Please call Roy Lathrop (415-557-1429) if you have any questions about this comment.

Sincerely,

George Hersh  
Environmental Program Manager  
Environmental Section  
Commission Advisory and Compliance Division

cc: State Clearinghouse

Response #9

No altering of the at-grade rail crossing is anticipated. The traffic signals in the area currently operate to allow for pre-empted train traffic, and no changes are anticipated.

## PLANNING COMMISSION HEARING COMMENTS

MAY 24, 1989

### Commission's Comments

10. When will traffic improvements be made?
11. Does the project provide mitigation for I-5/Palomar Street interchange impacts?
12. Is there sufficient stacking room for west bound traffic on Palomar Street east of the rail (trolley) tracks?
13. Is there room for a bike lane on the north side of Palomar Street?

### Pacific Scene's Comments

14. The traffic generation factor used for the Existing Zoning Alternative is too low. A factor of 12 trips per 1,000 square feet should be used instead of 8 trips per 1,000 square feet. The lot coverage for the Existing Zoning Alternative should be 35 to 45 percent instead of 25 percent. Using a trip generation rate of 12 trips per 1,000 square feet and a lot coverage of 40 percent would result in 2,557 ADT (12.23 ac. X 43,560 sq.ft./ac X 0.40 lot coverage X 12 trips/1,000 sq.ft. = 2,557 ADT).

### Jehovah Witness Kingdom Hall Representative's Comments

15. There is an existing drainage problem near the southern project boundary and Jayken Way that should be corrected.

### Resource Conservation Commission Representative's Comments

16. The Commission recommends certification of the EIR.
17. The Commission recommends that the four restaurant pads should be deleted from the project.

Response #10

The traffic improvement mitigation measures will be made a condition of approval of the project.

Response #11

The City of Chula Vista and CALTRANS are currently planning improvements to be made to the interchange, however there is no schedule for the construction of the interchange improvements. The Palomar Trolley Center project will be required to make improvements to Palomar Street between the interchange and Broadway.

Response #12

Willdan Associates reports that there is sufficient stacking room for traffic along westbound Palomar Street.

Response #13

The City Traffic Engineer reports there will be five feet of paved area available for a bike lane on the north side of Palomar Street.

Response #14

The traffic generation factor used for the Existing Zoning Alternative was 90 trips per acre. This factor was taken from the traffic analysis prepared by Willdan Associates. Multiplying this factor by the acreage of the project site, 12.23 acres, results in a traffic generation of 1,100 average daily trips (ADT). SANDAG's Vehicular Traffic Generation Rates For The San Diego Region also indicates that 90 trips per acre is the traffic generation factor for industrial parks. In addition to this factor, SANDAG also indicates 8 trips per 1,000 square feet of gross floor area as a traffic generation factor for industrial parks. The assumed gross floor area for the Existing Zoning Alternative (137,500 sq.ft.) was derived by dividing the 1,100 ADT by the 8 trips per 1,000 sq.ft. factor  $((1,100/8) \times 1,000 = 137,500)$ . This assumed gross floor area square footage is a valid assumption considering the amount of area which would be required for setbacks, off-street parking, and landscaping.

Response #15

According to the City of Chula Vista's Engineering Department, the earthen channel located south of the project boundary is a poor drainage feature which possesses problems such as standing water. The Engineering Department indicates that the proposed project will not worsen the existing drainage problem and may even improve the current situation by drawing away surface runoff from that area. The City indicated, however, that the project will not be responsible for improving the drainage feature.

Response #16

No response required.

Response #17

This suggestion has been noted for possible future consideration by the City.



REVISED  
DRAFT FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER  
CHULA VISTA  
EIR-89-4M

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

March 22, 1989

Revised July 6, 1989



## TABLE OF CONTENTS

### LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
1.2.1 Comparison of Alternatives	I-9
3.1.1 Trip Generation, Current Zoning	14
3.1.2. Trip Generation, Proposed Project	15
3.1.3 City of Chula Vista Proposed Standard Street Classifications	21
3.1.4 Cumulative ADT and LOS	22
3.1.5 New Circulation Element Roadway Capacity Standards	23
3.1.6 Existing Study Area Segment Volumes	23
3.1.7 Intersection Levels of Service in the Project Vicinity	25
3.2.1 Traffic Volumes	39
3.2.2 Market Area Population and Housing Estimates	41
3.2.3 Market Area Household Income Estimates	42
3.2.4 Retail Expenditure Potential 1988	44
3.2.5 Retail Expenditure Potential 1990	45
3.2.6 Market Area Employment Base	46
3.2.7 Market Area Employment Base Retail Support Projections	47
3.2.8 Existing Retail Centers	50
3.2.9 Planned Retail Developments	56
3.2.10 Estimated Square Feet of Retail Space by Type of Business	58
3.2.11 Potential Sales - Supermarket/Drugstore Center	59
3.2.12 Potential Sales - Off-Price Shopping Center	60
3.2.13 Potential Impact - Supermarket/Drugstore Center	62
3.2.14 Potential Impact - Off-Price Shopping Center	63
3.2.15 Market Share Capture	64
3.2.16 Study Site Potential Sales tax Revenues	70



PALOMAR TROLLEY CENTER EIR

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
1.0	INTRODUCTION	
	1.1 Purpose	I-1
	1.2 Executive Summary	I-4
2.0	PROJECT DESCRIPTION AND SUMMARY	
	2.1 Location	1
	2.2 Project Characteristics	1
	2.3 Related Projects	7
3.0	ENVIRONMENTAL ANALYSIS	
	3.1 Transportation/Access	10
	3.2 Community Social Factors	32
	3.3 Maintenance of Adopted Growth Management Threshold Standards	72
4.0	ALTERNATIVES	
	4.1 Alternative #1 - "No Project"	81
	4.2 Alternative #2 - Existing Zoning	81
	4.3 Alternative #3 - Reduced Project	82
5.0	UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS	84
6.0	THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	85
7.0	IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT	87
8.0	GROWTH INDUCING IMPACT OF THE PROPOSED ACTION	88
9.0	REFERENCES	89
10.0	CONSULTANT IDENTIFICATION	90

## TABLE OF CONTENTS

### APPENDICES

- A. Initial Study, Notice of Preparation and Responses
- B. Translation Table, Montgomery Specific Plan
- C. Traffic Analysis
- D. Economic Impact Analysis
- E. Preliminary Drainage Analysis

### LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
2.1.1 Regional Map	2
2.1.2 Vicinity Map	3
2.1.3 Aerial Photograph	4
2.2.1 Site Plan	6
2.3.1 Related Projects	9
3.1.1 Existing Daily Traffic Volumes	11
3.1.2 Trip Distribution	16
3.1.3 P.M. Peak Hour Trips	18
3.1.4 Cumulative ADT	19
3.1.5 Cumulative ADT With Jayken Court Access	20
3.2.1 Site Plan	34
3.2.2 Existing Retail	36
3.2.3 Traffic Distribution	38
3.2.4 Planned Retail Developments	55
3.3.1 Drainage Map	74

## 1.0 INTRODUCTION

### 1.1 PURPOSE

This document is an Environmental Impact Report (EIR) which addresses the development of a private project named Palomar Trolley Center, proposed by Pacific Scene, Incorporated. The applicant proposes to develop a 12.23 acre site as a community shopping center incorporating a total of 127,365 gross square feet of building space. The proposed site is located in the Harborside Community of the Montgomery Specific Plan area of the City of Chula Vista.

The California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et. seq.) requires the preparation of Environmental Impact Reports (EIRs) or other environmental analysis for any project the City of Chula Vista intends to carry out or approve. The purpose of an EIR is to inform the public and the decision-makers about the nature of the project being considered and the extent and kinds of impacts the project and alternative projects will have on the environment if the project is carried out.

Environmental Impact Reports must contain discussions of specific topics as outlined in the State CEQA Guidelines (California Administrative Code Sections 15000 et. seq.) for the implementation of CEQA prepared by the State Secretary for Resources. These guidelines are periodically updated to comply with changes in CEQA and court interpretations. The following list identifies the required CEQA sections and where they are located in this EIR.

<u>Required Description and Analysis</u>	<u>EIR Section</u>
1. Summary (Sect. 15123)*	Section 1.2
2. Project Description (Sect. 15124)	Section 2.0
3. Environmental Setting (Sect. 15125)	Section 3.0
4. Environmental Impact (Sect. 15126 (a),(b),(c))	Section 3.0
5. Alternatives To Proposed Project (Sect. 15126(d))	Section 4.0
6. The Relationship Between Local Short-term Uses Of Man's Environment And The Maintenance And Enhancement Of Long-term Productivity (Sect. 15126(e))	Section 6.0
7. Significant Irreversible Environmental Changes (Sect. 15126(f))	Section 7.0
8. Growth Inducing Impacts (Sect. 15226(g))	Section 8.0
9. Cumulative Impacts (Sect.15130)	Section 3.0

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\* Applicable Sections of the State CEQA Guidelines are contained in parentheses.

A preliminary environmental analysis was conducted by the Planning Department staff to determine areas of potential environmental impact. Possible significant adverse impacts which may result from the project were identified by the City staff through completion of an Initial Study. Three areas identified by City staff are Circulation/Traffic, Socio-economic Impacts, and The Maintenance of Adopted Threshold Standards. All other issues were determined not to have potentially significant environmental impacts and therefore are not addressed in this EIR.

The environmental consultant to the City is A.D. Hinshaw Associates, of San Diego, California. Preparers of and contributors to this report are listed in Section 10.0. Key contact persons are:

City of Chula Vista

Mr. Doug Reid  
Environmental Review Coordinator  
Planning Department  
276 Fourth Avenue  
Chula Vista, CA 92010  
(619)691-5101

Environmental Consultant

Mr. Philip L. Hinshaw  
A.D. Hinshaw Associates  
6136 Mission Gorge Rd., Ste. 111  
San Diego, CA 92120  
(619)280-2264

Applicant

Mr. A. James Moxham  
Pacific Scene, Inc.  
2505 Congress Street  
San Diego, CA 92110  
(619)299-5100

This document, entitled Draft Environmental Impact Report, is a "focused EIR" which concentrates on the potentially significant issues involved with the proposed project. The draft EIR will be made available for review by the public and public agencies for 45 days to critique the EIR and gather additional information not covered here. The draft EIR will be available for review at the Planning Department, 276 Fourth Avenue.

The determination that the City of Chula Vista is the "lead agency" was made in accord with Sections 15050, 15051, and 15367 of the State CEQA Guidelines, which define the lead agency as the "public agency which has principal responsibility for carrying



out or approving the project." This EIR has been prepared in accordance with the criteria, standards, and procedures of:

- . the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et. seq.);
- . the State CEQA Guidelines (California Administrative Code Sections 15000 et. seq.);
- . the Environmental Review Procedures of the City of Chula Vista; and
- . the regulations, requirements and procedures of any other responsible agency with jurisdiction by law.

A Notice of Preparation was prepared as a part of the environmental review process and mailed to affected agencies, organizations and persons who may have an interest in this project. Agencies or interested persons not contacted or who have not responded to the Notice of Preparation will have the opportunity to comment during the public review of the Draft EIR. Comments received by the City of Chula Vista together with the responses to such comments, will be included in the Final EIR in accordance with the guidelines and procedures of the State and County.

Relevant reports and other reference material from which data or conclusions have been drawn are listed in Section 8.0. Numbers in brackets in the text of this EIR (e.g., [A-1, p.1]) refer to the documents listed in this section.

## 1.2 EXECUTIVE SUMMARY

This section summarizes the significant and adverse impacts anticipated to occur as a result of the approval of the proposed Specific Plan Amendment (SPA), Zone Change and future approvals required to implement the project including Street Vacations, Design Review, Grading Permit, Tentative Parcel Map, and Site Plan and Architecture Review; and the subsequent development of the Palomar Trolley Center.

### TRANSPORTATION/ACCESS

The proposed Palomar Trolley Center will add approximately 6,250 newly generated average daily trips (ADT) to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the proposed project's traffic is added to that of recently approved projects, Palomar Street is projected to operate at level of service (LOS) E under the existing Circulation Element classification, ~~and LOS F under the new Circulation Element classification.~~

Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. Industrial Boulevard between Palomar Street and Main Street will deteriorate to LOS D. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects.

The intersection of Palomar Street/Broadway will deteriorate from LOS B to LOS D following the construction of the project. The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F and would continue at this level after construction of the Palomar Trolley Center.

To mitigate the adverse impacts to the local street network, the following measures are recommended to be implemented.

1. Improve Palomar Street to the Major Street Classification with a raised median along the frontage of the Palomar Center.
2. Improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing.
3. ~~Conduct a detailed traffic signal removal analysis for the purpose of relocating the traffic signal at the Palomar Street/Trolley Station entry to the main project entry.~~

4. Provide an internal connection between the proposed project and the Trolley Station.
5. Provide dual left-turn lanes on the westbound approach of the Palomar Street/Project Entry intersection.
6. Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection.
7. Conduct a detailed site analyses for the individual restaurants at the time of conditional use permit application.
8. ~~Cul-de-sac-the--north-end--of-Jayken--Way-south--of-the-SDG&E right-of-way, south-of-the-project.~~

These measures will mitigate all of the adverse impacts to a less than significant level. The City's Threshold Standards will be met if the recommended mitigation measures are implemented.

#### COMMUNITY SOCIAL FACTORS

The proposed retail center would continue the trend of increasing competitiveness among smaller centers along Broadway. The potential for business losses or failures is rooted in location and design problems associated with these centers/outlet. While the Palomar Trolley Center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences.

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers.

Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies can not be ascribed to the eventual marketing of the Palomar Trolley Center, since it is not large enough to impact the market, and its eventual uses have not been specifically identified.

Development of the proposed project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. Although the subject development is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

Because no significant adverse socioeconomic impacts have been identified, there are no mitigation measures to be associated with the Palomar Trolley Center project.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present...", but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged [A-7 p.8]. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infill sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.

#### **MAINTENANCE OF ADOPTED GROWTH MANAGEMENT THRESHOLD STANDARDS**

Because the site is located in a substantially developed area where public services and facilities are already provided, the development of the site is not expected to result in any impacts to the maintenance of the City's Adopted Growth Management Threshold Standards for Fire/Emergency Medical Service, Parks and Recreation, Sewer, and Water.

There will be significant cumulative impacts to the maintenance of Police Service Threshold Standards as a result of implementing the proposed development and other projects which have been recently approved. To mitigate these cumulative impacts, it is recommended that the Growth Management Oversight Committee (GMOC) review the current level of service of the Police Department and, if warranted, that the City Council hold a public hearing for the purpose of adopting a moratorium on the

acceptance of new tentative maps or other discretionary approvals applications during which time the City shall prepare specific mitigation measures for adoption which are intended to bring the condition into conformance. The degree to which they are mitigated will be determined by the measures implemented by the City.

Preliminary hydrology calculations indicate that the development of the proposed project will result in an increase of surface runoff of 13 cfs for Q<sub>10</sub> flows and 17 cfs for Q<sub>50</sub> flows at the sump located south of the project. Depending on the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows, the development of the proposed project may have an effect upon the City's threshold standards for drainage.

It should be noted that all the assumptions used in the preliminary hydrology calculations are based upon the most current drainage study on file with the City, which was prepared more than 20 years ago. Records were found to be incomplete and, at best, outdated. Therefore, it is recommended that a more thorough hydrology study be conducted in order to better determine the downstream effects of the proposed project and, accordingly, its effect upon the City's threshold standards for drainage.

#### **ALTERNATIVES**

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. The "No Project" alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition and no significant environmental impacts are expected to occur as a result of this alternative.

The "Existing Zoning" alternative would develop the site in accord with the Specific Plan land use designation, Research and Limited Industrial, and the existing zoning designation, M52-Limited Impact Industrial. Total gross floor area is assumed to be 137,500 sq.ft.

The "Reduced Project" alternative assumes a "reduced scale of development" of the proposed project. This alternative reduces the gross floor area by approximately 15,335 sq.ft. for a total project size of approximately 112,030 sq.ft. gross floor area.

The "Jayken Way" alternative assumes that access to Anita Street is provided by extending Jayken Way to the southern boundary of the project site. This alternative would not

adversely impact the surrounding street network and would increase the Level of Service at the Broadway/Palomar Street intersection from LOS C to LOS B (assuming that dual left turn lanes on east bound Palomar Street are also constructed).

Table 1.2.1 lists the environmental issues and a comparison of the impacts associated with the proposed project and the alternatives.

Table 1.2.1  
COMPARISON OF ALTERNATIVES

	ALTERNATIVES		
	Proposed Project	Existing Zoning	Reduced Project
TRANSPORTATION/ACCESS	6,248 ADT	1,100 ADT	5,489 ADT
COMMUNITY SOCIAL FACTORS	No Physical Deterioration	No Physical Deterioration	No Physical Deterioration
MAINTENANCE OF THRESHOLD STANDARDS			
Fire and Emergency Medical Service	3-7 Minute Response	3-7 Minute Response	3-7 Minute Response
Police Services*	4 Minute Response	4 Minute Response	4 Minute Response
Parks and Recreation	No Impact	No Impact	No Impact
Drainage	Drainage Study Required	Drainage Study Required	Drainage Study Required
Sewer	21,540 gpd Adequate Facilities Available	23,212 gpd Adequate Facilities Available	18,930 gpd Adequate Facilities Available
Water Required Fire Flow	30.57 ac ft/yr 5,000 gpm Service Available	12.23 ac ft/yr 5,000 gpm Service Available	30.57 ac ft/yr 5,000 gpm Service Available
Jayken Wy. Access			6,248 ADT Slightly Improved Circulation No Physical Deterioration

\* Current Level Of Service is below City Threshold Standard  
Note: No environmental impacts would result from the "NO Project" alternative





## 2.0 PROJECT DESCRIPTION

### 2.1 LOCATION

The proposed Palomar Trolley Station Center is located in the City of Chula Vista. Chula Vista is located in the South Bay area of the County of San Diego, approximately 8 miles south of the City of San Diego's downtown and approximately 7 miles from the international border with Mexico (See Figure 2.1.1). The property is contained within the U.S.G.S. Imperial Beach Quadrangle (See Figure 2.1.2). The 12.23+ acre project site is located within the Harborside "B" subcommunity of the Montgomery Specific Plan area, south of Palomar Street and immediately east of the Palomar Street Trolley Station (See Figure 2.1.3).

Montgomery is located in the southwestern area of the City of Chula Vista, on the low coastal plain on the eastern shore of San Diego Bay. It has a gently rolling terrain with low hills to the north and east which slope downward to the south and west. The Montgomery Specific Plan describes Montgomery as "a low-profile, medium density, suburban community which is substantially developed. It is characterized by its mixed land use pattern, strip commercial, incomplete infrastructure, scarcity of park sites, and generally unkept appearance." Harborside is described in the Specific Plan as having land use pattern of mixed commercial, industrial, and residential uses, lacking overall community integrity [A-1].

### 2.2 PROJECT CHARACTERISTICS

#### A. Requested Actions

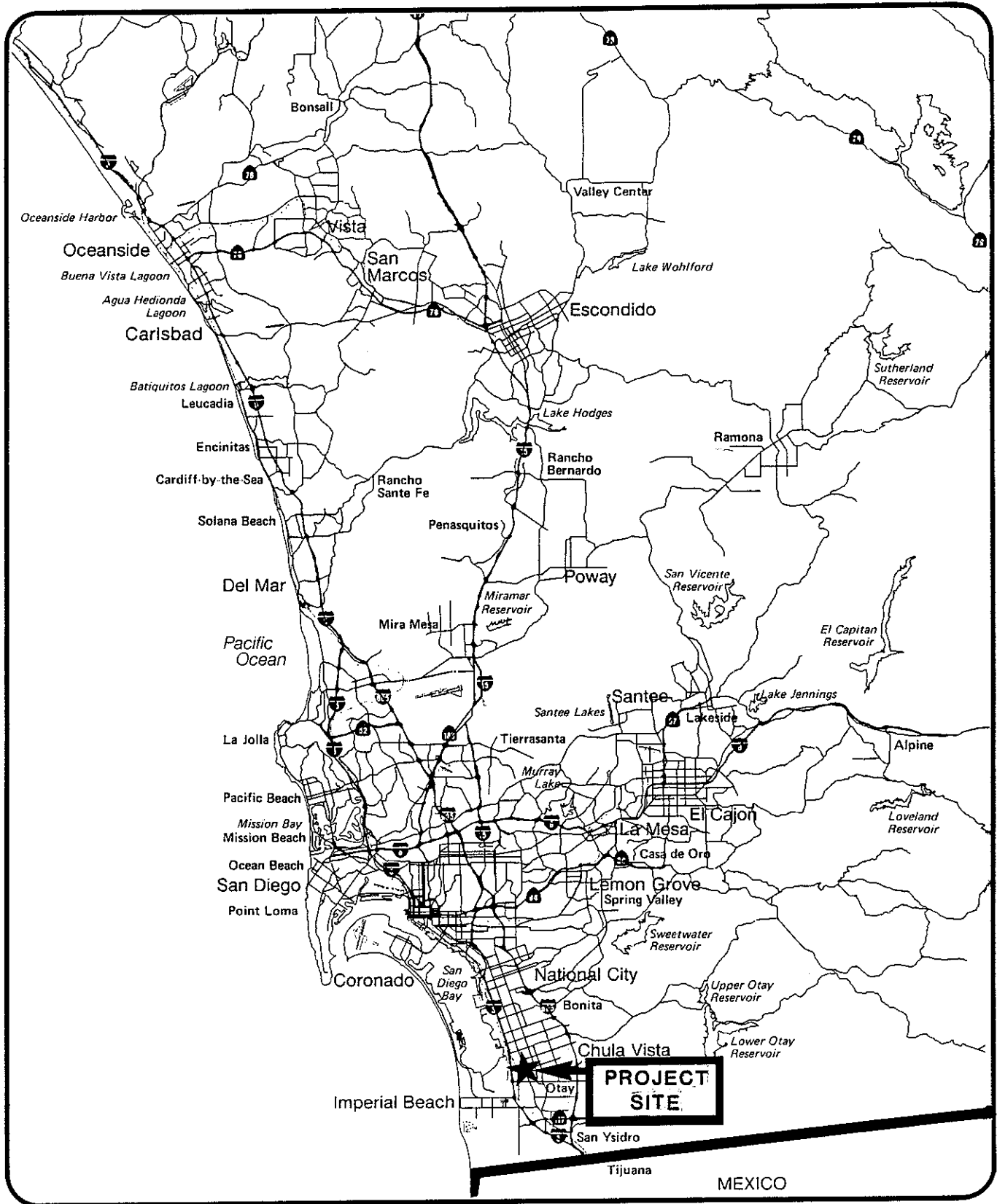
The development of the proposed project will initially require a Specific Plan Amendment (SPA), and a Zone Change. Future approvals required to implement the project include Street Vacations, Design Review, Grading Permit, Tentative Parcel Map, and Site Plan and Design Review.

#### 1. Specific Plan Amendment

The existing Montgomery Specific Plan land use designation for the site is Research and Limited Industrial, which is designated for light and limited industrial uses. Typical land uses intended for this designation include industrial parks, and research and development parks.

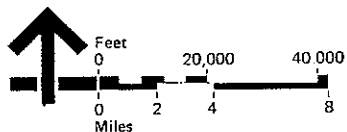
The proposed SPA designation is Mercantile and Office Commercial which is designated for sales of convenience and durable goods/services, and offices. Typical land uses intended for this designation include community shopping centers and offices, and mixed commercial centers and strips.





SOURCE: San Diego Association of Governments

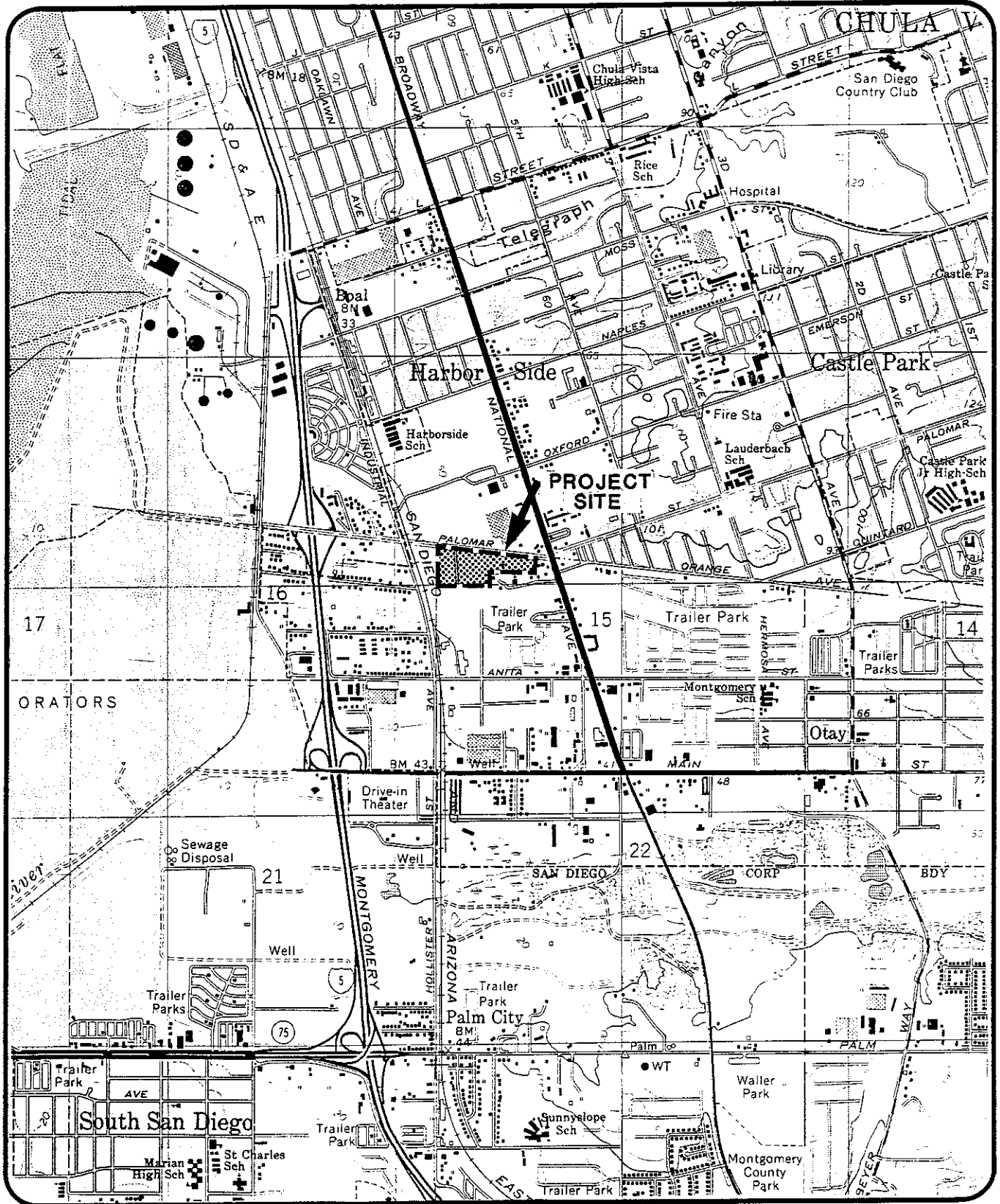
Figure 2.1.1



## Regional Map

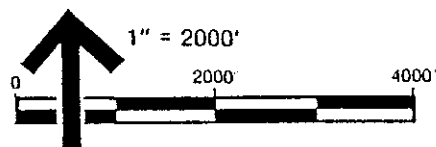
A. D. HINSHAW ASSOCIATES





SOURCE: USGS Quadrangle Imperial Beach

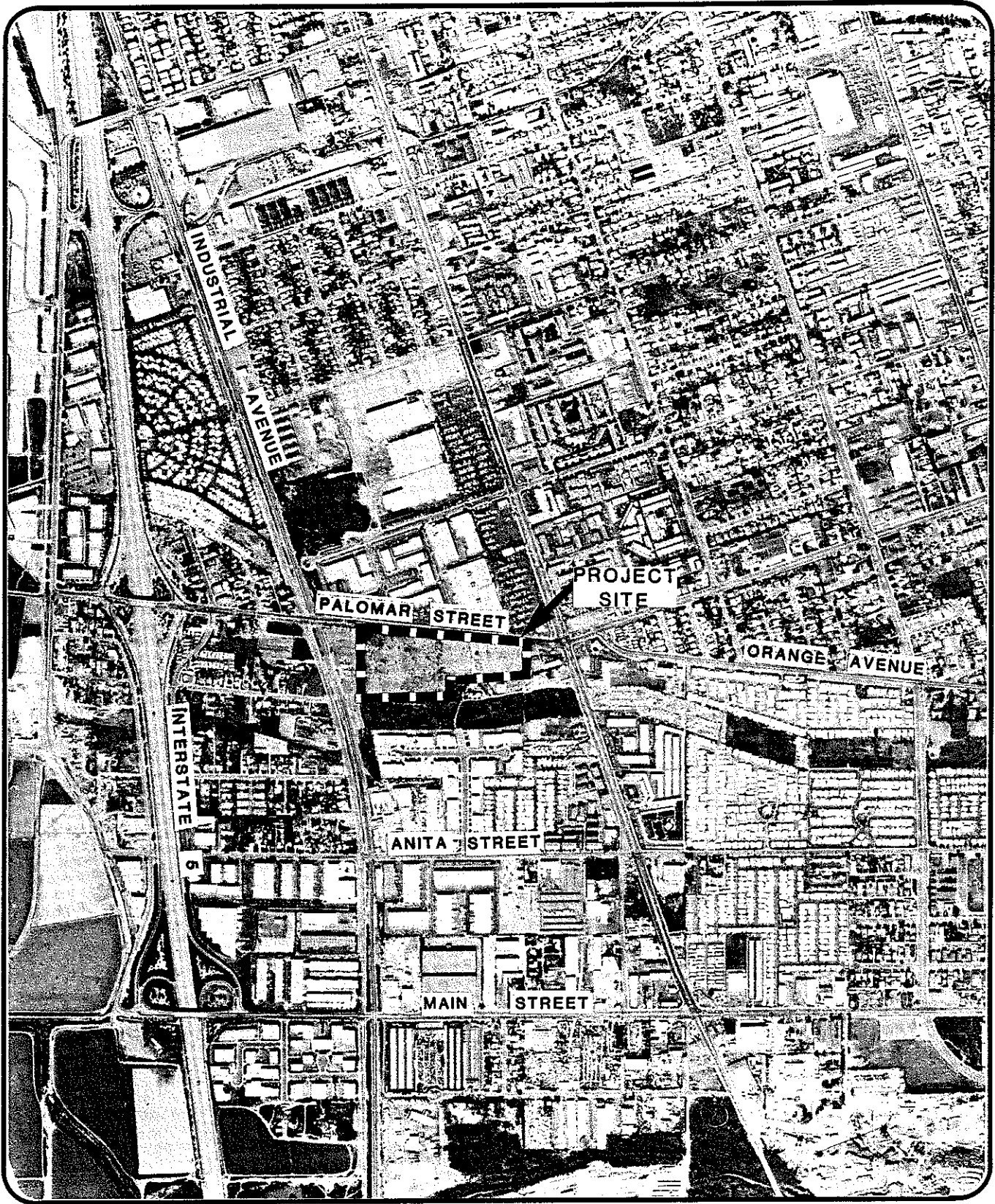
Figure 2.1.2



Vicinity Map

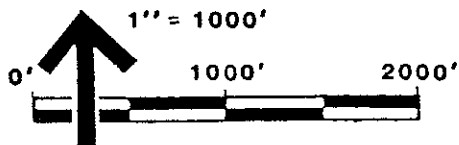
A. D. HINSHAW ASSOCIATES





SOURCE: Aerial Fotobank Inc.

Figure 2.1.3



Aerial Photo

A. D. HINSHAW ASSOCIATES





## 2. Zone Change

The Montgomery Community is governed by the San Diego County Zoning Ordinance, as adopted by the City of Chula Vista upon the annexation of Montgomery in December, 1985 [A-2]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2, sect. 2520]. As stated in the County Zoning Ordinance, the Limited Impact Industrial Use zone is intended to "create and preserve areas where manufacturing and industrial uses which evidence no or very low nuisance characteristics may locate", and "to create a community of industries in a high quality industrial park or a strip of low impact industrial uses."

The proposed zoning for the project site is E-N-Neighborhood C-C, Central Commercial Zone, from the City of Chula Vista's standard City Zoning Ordinance [A-3, chap. 19.34]. As stated in the Chula Vista Zoning ordinance, the purpose of this zone is to "provide a shopping center for convenience shopping in a residential neighborhood where analysis of residential population demonstrates that such facilities are necessary and desirable."

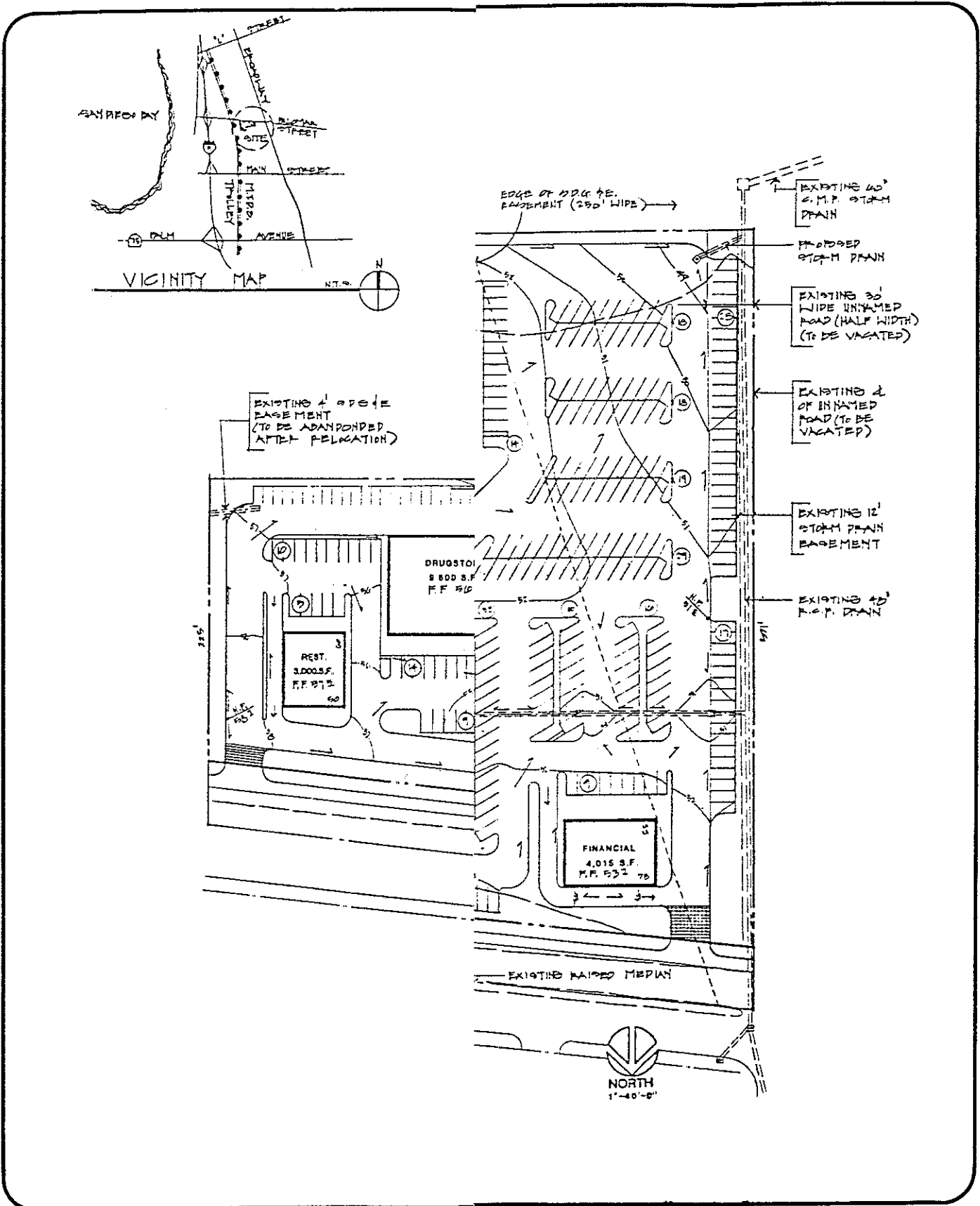
The Montgomery Specific Plan contains a "Table of Translation" which "embodies proposed zoning amendments and changes which are essential to the effective implementation and execution of the Montgomery Specific Plan, and the conversion of Montgomery (from County zoning ordinances) to Chula Vista's standard City zoning. This table lists the General/Specific Plan designations followed by the appropriate County Zoning and suggested City Zoning designations applicable for each designation [A-1]. ~~The proposed zoning, E-N-Neighborhood Commercial is not listed as a suggested City zone for the Mercantile and Office Commercial Specific Plan Designation and is, therefore, inconsistent with the proposed SPA land use designation according to the Specific Plan (see Appendix B).~~ The suggested City zones for the Mercantile and Office Commercial designation are:

- . C-O, Administrative & Professional Office Zone;
- . C-C, Central/Commercial Zone; and
- . C-T, Thoroughfare Commercial Zone.

## 3. Street Vacations

The preliminary site plan for the proposed project assumes the vacating of two unnamed "paper" streets. The roads to be vacated are a 60-foot wide street bisecting the property and a 30-foot wide road adjacent to the westerly property boundary (see Figure 2.2.1). A request for the vacation of the 60-foot wide street was made by an earlier prospective developer of this property. That proposal was not approved. The City may condition the road vacations to provide access for northbound traffic on Jayken Way should it be extended north across the San



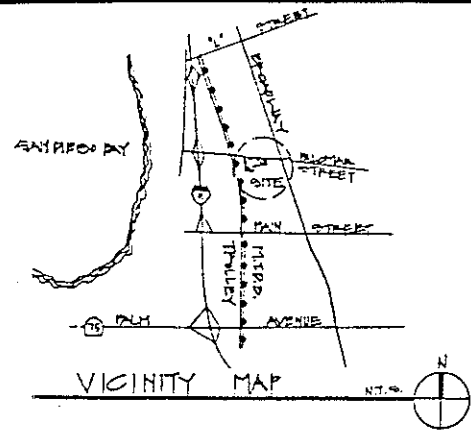


SOURCE: Brown Leary Architecture and Planning

Figure 2.2.1

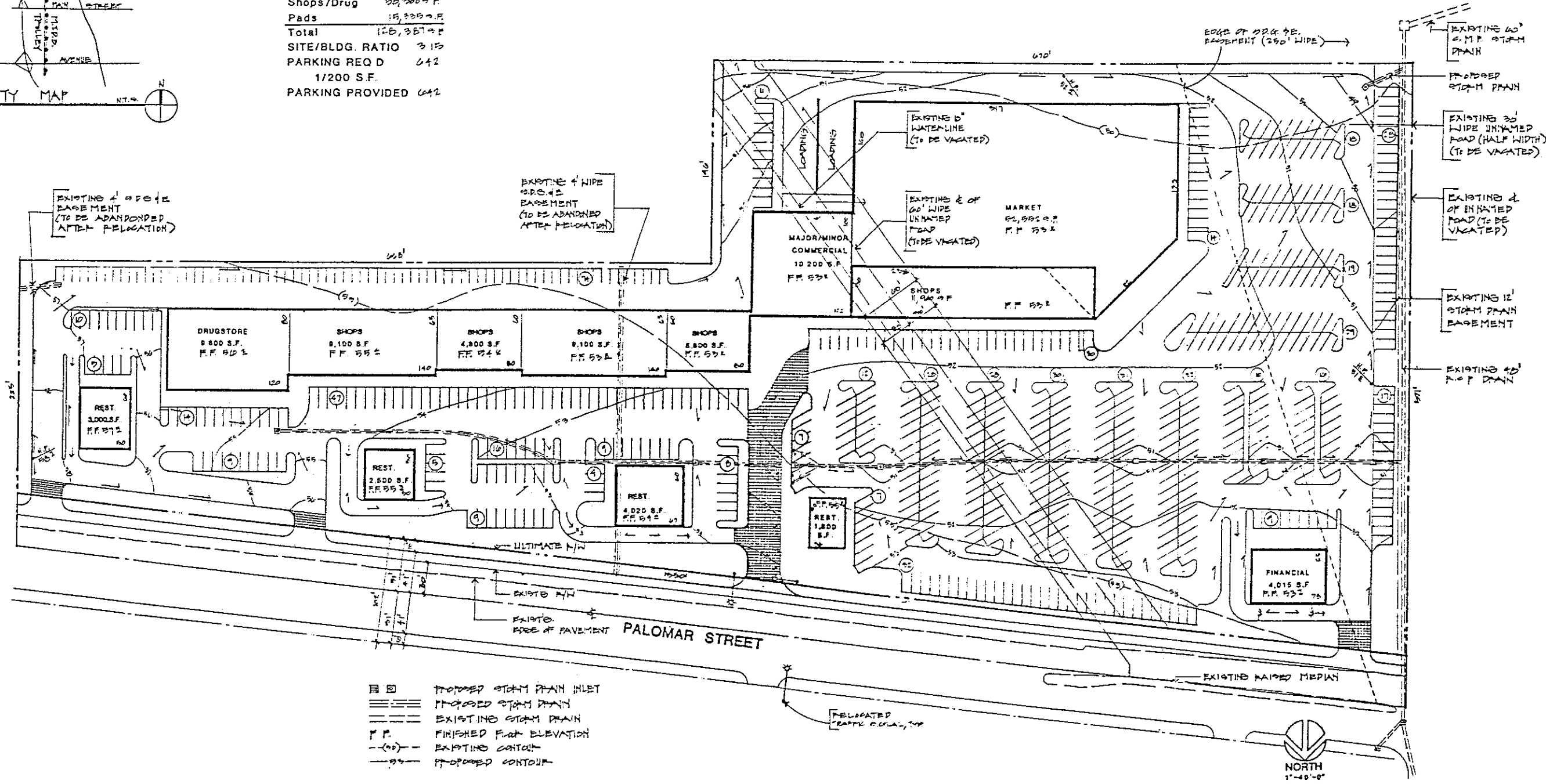
Site Plan





**RESUME**

SITE AREA	- 532,720 S.F.
BLDG. AREA	
Market	52,552 S.F.
Comm	10,200 S.F.
Shops/Drug	30,700 S.F.
Pads	15,339 S.F.
Total	128,357 S.F.
SITE/BLDG. RATIO	3.15
PARKING REQ D	642
1/200 S.F.	
PARKING PROVIDED	642



NOTE:  
THE ELEVATIONS & DRAINAGE PATTERN SHOWN  
HEREON ARE CONCEPTUAL & DO NOT NECESSARILY  
REPRESENT A DETAILED SITE & ARE SUBJECT TO CHANGE.

SOURCE: Brown Leary Architecture and Planning

Figure 2.2.1

Site Plan



Diego Gas and Electric (SDG&E) right-of-way to the southern boundary of the site; however, the preliminary site plan does not indicate this.

4. Design Review, Grading Permit, Tentative Parcel Map, Site Plan and Architectural Review

The tentative map, site plan and grading plans have not yet been submitted to the City. They would be prepared only if the Specific Plan Amendment and Rezone are approved. When, and if, the plans are prepared and submitted, they would be reviewed by the City's Environmental Review Coordinator. The appropriate environmental documents will be prepared following the review of these documents.

**B. Proposed Improvements**

The Palomar Trolley Center preliminary plan proposes a community shopping center incorporating a total of 128,387 gross square-feet of building space to be constructed on the site (see Figure 2.2.1). The project is proposed to be developed as one phase. The center is planned to include a major supermarket, retail shops and pads for four drive-through restaurants and a bank or other financial institution. A parking ratio of 5 spaces per 1,000 sq. ft. of floor area will result in 642 parking spaces.

The 128,387 square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shop, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 52,552; miscellaneous shops and a drug store would comprise 50,300 square feet. A major/minor shop would occupy 10,200 square feet, and the five pads would provide 15,335 square feet of space.

The proposed improvements of 128,387 sq.ft. of retail space is larger than the previous proposal submitted to the City. The Traffic Analysis was based upon the original proposal of 127,500 sq.ft. of retail space. The Socio-economic Analysis was based on a revised proposal of 127,365 square feet. The difference of 1,022 sq.ft. between the current site plan and the previous site plan is less than one percent. This difference does not affect the validity of the traffic and socio-economic analyses.

**2.3 RELATED PROJECTS**

Most of the land uses surrounding the project site are commercially and industrially developed. Surrounding land uses include the Palomar Street Trolley station to the west, commercial and limited industrial uses to the north, commercial

uses to the east, and a 250-foot wide SDG&E right-of-way to the south. Industrial and mixed uses are located south of the SDG&E right-of-way.

Five recently approved projects within the vicinity of the proposed Palomar Trolley Center may cumulatively interact with, or be adversely affected by the proposed project. Figure 2.3.1 indicates the location of these projects in relation to the proposed project site. The projects consist of:

1. Anita/Broadway Commercial Center

Two triangular shaped parcels totaling 7.6 acres located on both sides of the 1600 block of Broadway between Anita Street and Main Street. The western parcel will include 2 commercial buildings totaling 52,626 sq. ft., and the eastern parcel will contain 2 commercial/light industrial buildings totaling 57,582 sq. ft.

2. Genesis Plaza Commercial Center

Two adjacent parcels totaling 2.16 acres located on the northeast corner of Broadway and Palomar Street. The project will include 3 commercial retail building buildings totaling 26,720 sq. ft.

3. Price Club Plaza Center

A community shopping center consisting of 4 buildings totaling 291,441 sq.ft. located on the west side of Broadway between Naples Street and Oxford Street.

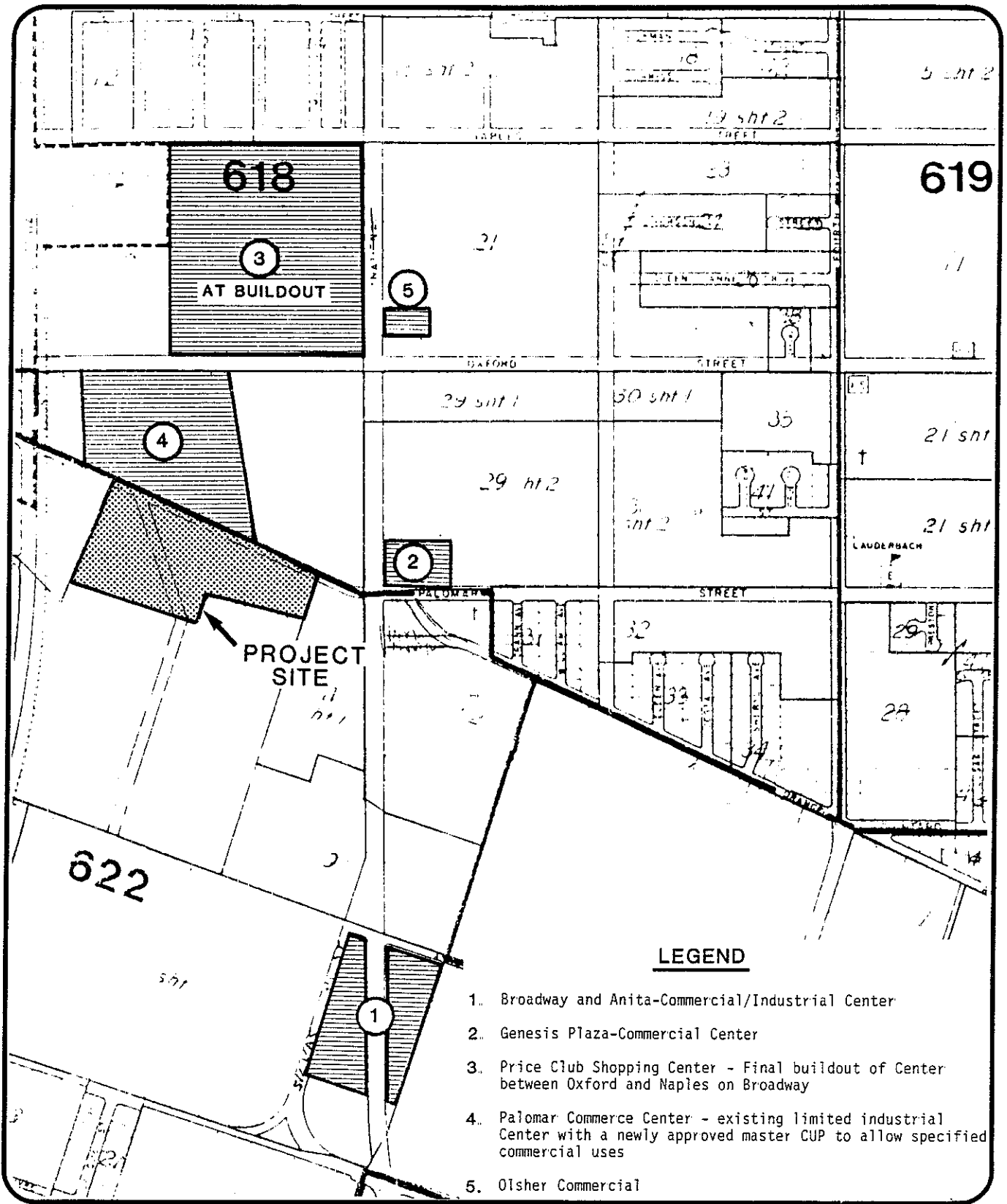
4. Palomar Commerce Center

A limited industrial complex consisting of 2 buildings totaling 54,625 sq. ft. on 4.79 acres, located across Palomar Street from the proposed project site.

5. Olsher Commercial Building

A 9,955 sq.ft. retail commercial building located on a rectangular lot of 31,353 square feet fronting Broadway, approximately 100 feet north of Oxford Street.





**LEGEND**

1. Broadway and Anita-Commercial/Industrial Center
2. Genesis Plaza-Commercial Center
3. Price Club Shopping Center - Final buildout of Center between Oxford and Naples on Broadway
4. Palomar Commerce Center - existing limited industrial Center with a newly approved master CUP to allow specified commercial uses
5. Oisher Commercial

SOURCE: City of Chula Vista

Figure 2.3.1

**Related Projects**

A. D. HINSHAW ASSOCIATES

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### 3.0 ENVIRONMENTAL ANALYSIS

#### 3.1 TRANSPORTATION/ACCESS

A traffic analysis for the proposed Palomar Trolley Center was prepared by Willdan Associates to assess the potential transportation impacts resulting from the construction of the project [A-4]. The report has been reviewed by JHK and Associates (JHK) to verify the study methodology and results for accuracy and to ensure that all relevant transportation issues were addressed in sufficient detail [A-5].

The JHK report review indicates that the Willdan study results are accurate, however, JHK adds additional comments and mitigation measures based upon the new roadway capacity standards developed for the recently prepared City of Chula Vista Circulation Element. This new Circulation Element is currently being released for public review and is anticipated to be adopted within the next six months. The Willdan analysis was based upon the roadway capacities of the current Circulation Element.

This section summarizes the Willdan report and integrates the results of the JHK review. Information added to the analysis by the JHK report is noted. Both the Willdan Analysis and the JHK review are contained in their entirety in Appendix C.

##### 3.1.1 PROJECT SETTING

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley station (see Figure 2.1.2). The project proposes four points of access from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes to relocate the existing traffic signal at the entrance to the trolley station to this central driveway. The site is currently vacant and surrounding land uses consist of commercial and light industrial uses. Regional access to the site is provided by Interstate 5 (I-5) via its diamond interchange with Palomar Street.

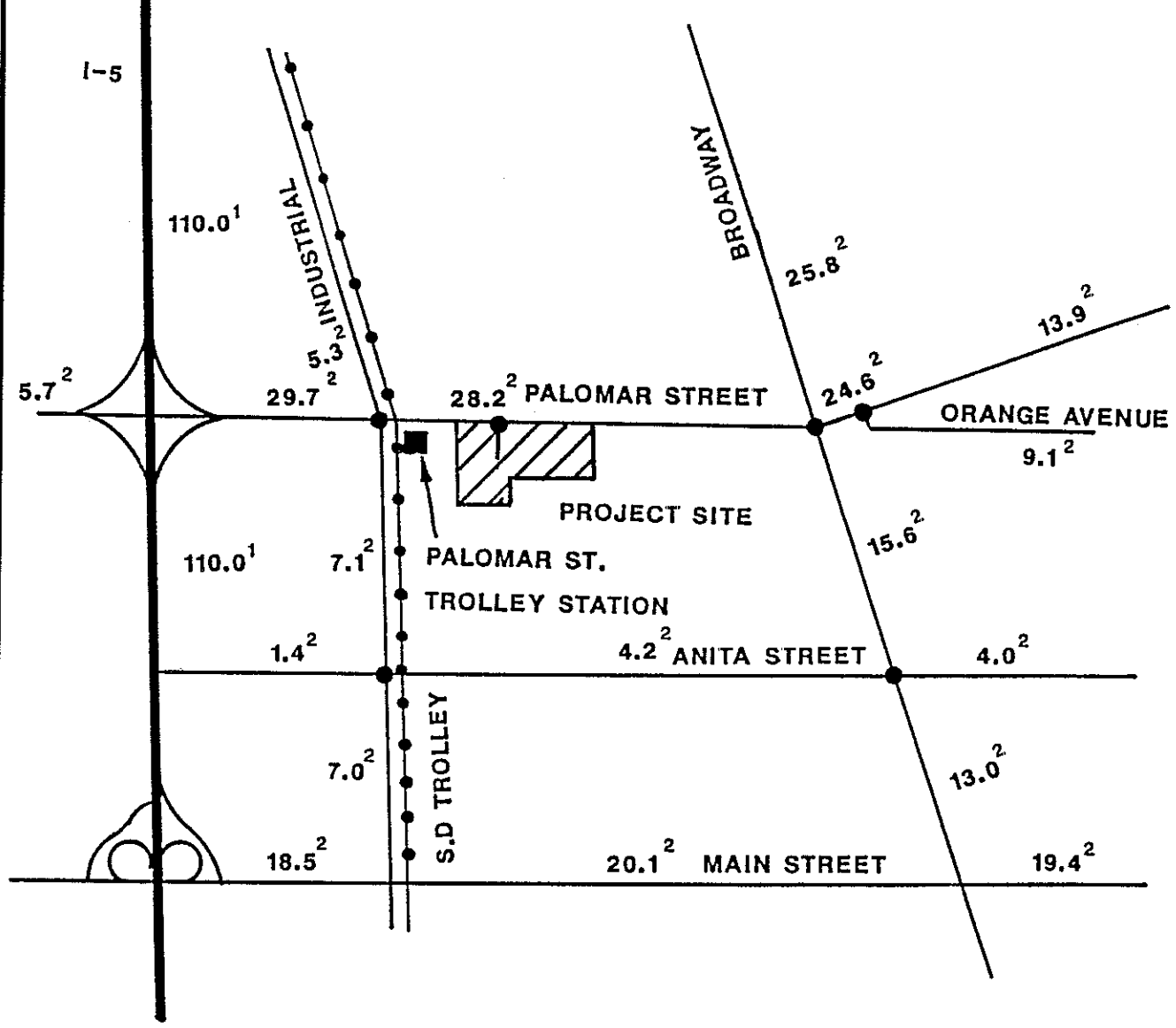
Interstate 5 is a divided eight-lane freeway running north and south through western San Diego County. According to the California Department of Transportation (CALTRANS), the 1987 average annual daily traffic (ADT) on I-5 was 110,000 ADT north and south of Palomar Street (see Figure 3.1.1).

Palomar Street is an east-west major roadway constructed to four travel lanes between I-5 and Orange Avenue. Along the project frontage, Palomar Street is constructed with four travel lanes and a center left turn lane. The intersections of Palomar Street with Industrial Boulevard, the trolley station, and Broadway are controlled by traffic signals. The traffic signal





NO SCALE



SOURCES: CALTRANS<sup>1</sup>  
 CITY OF CHULA VISTA, 1987 TRAFFIC FLOW<sup>2</sup>  
 ● INTERSECTIONS ANALYZED

SOURCE: Willdan Associates

Figure 3.1.1

# Existing Daily Traffic Volumes

A. D. HINSHAW ASSOCIATES



at the Palomar Street trolley station is approximately 380 feet east of the traffic signal at the Palomar Street/Industrial Boulevard intersection.

Palomar Street near the project site is classified as a four-lane major road by the Current Circulation Element. However JHK's review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista indicates this section of Palomar Street is classified as a Class I Collector based on its existing cross section/configuration. This discrepancy in classification is due to the fact that the Circulation Element standards of the new element were not in effect at the time the Willdan report was prepared. The new Circulation Element also classifies the segment of Palomar Street between I-5 and Broadway as a six-lane Major Street in the future. Broadway and Orange Avenue are classified as four-lane Major Streets, and Industrial Boulevard and Anita Street are classified as Class III Collector Streets in the current and new Circulation Element.

According to the latest traffic counts compiled by the City of Chula Vista, Palomar Street carries 29,700 average daily trips (ADT) east of its diamond interchange with I-5. East and west of Broadway, Palomar Street carries 24,600 and 28,200 ADT, respectively.

Broadway is a north-south major roadway running through the City of San Diego (Beyer Boulevard), Chula Vista, and National City (National City Boulevard). In the project vicinity, Broadway is constructed with four travel lanes (plus turn lanes) and has a raised median. Strip commercial land uses front this roadway in the project vicinity. North and south of Palomar Street, Broadway currently (1987) carries 25,800 and 15,600 ADT, respectively.

Industrial Boulevard runs north and south between "L" Street and Coronado Avenue (in the City of San Diego) and acts as a frontage road east of I-5. The San Diego trolley tracks run along the east side of this roadway along its entire length. Industrial Boulevard is constructed with two travel lanes in the project vicinity and carries 5,300 and 7,100 ADT north and south of Palomar Street, respectively.

Anita Street is an east-west two-lane roadway in the project vicinity (with on-street parking) and serves primarily high density residential and industrial land uses. Between Industrial Boulevard and Broadway, Anita Street currently carries 4,200 ADT.

According to JHK's review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista, the segment of Palomar Street between I-5 and

Broadway should be classified as a Class I Collector based on its existing cross-section/configuration. Additionally, the new Circulation Element plan classifies this section of Palomar Street as a six-lane Major Street in the future. The JHK review also states that Broadway and Orange Avenue are classified as four-lane Major Streets, while Industrial Boulevard and Anita Street are classified as Class III Collector Street. These classifications are the same in both the existing and new Circulation Elements.

The project site is well served by public transit. As previously mentioned, the Palomar Street trolley station is adjacent to the project. The San Diego trolley provides service between downtown San Diego and the International Border crossing during the peak and off-peak commuting periods. San Diego Transit Local Route 32 provides service along Broadway, with a connection to the "H" Street trolley station and the International Border crossing. Chula Vista Transit Local Route 702 serves Palomar Street (and the trolley station) and provides a connection to the "H" Street trolley station.

### 3.1.2 IMPACTS

#### Trip Generation

The traffic which will result from the proposed project (as well as other nearby approved projects) has been estimated using accepted trip generation rates and peak hour factors which are based on categories of land uses. These rates have been developed by various agencies and summarized by the San Diego Association of Governments (SANDAG) in their Traffic Generators manual.

According to SANDAG, the 127,500 sq.ft. commercial site will generate 70 trips per 1,000 sq.ft. of gross floor area (GFA) at its driveways. Some of these trips, however, will already be on the street system and are either linked with other trips or stopover trips (also known as "passerby" trips). The City of San Diego has completed research on passerby or linked trips, by conducting detailed surveys at similar sites in the City of San Diego. Linked trips refer to a driver stopping at a commercial establishment on their way home from another trip, then continuing home. Therefore, the trip is already on the street system, and should not be "double counted" by the gross traffic generation rate.

The recommended cumulative or linked trip rate for a community shopping center (100,000 to 300,000 sq.ft. GFA) is 49 trips per 1,000 sq.ft. of GFA. This trip reduction is acceptable to the City of Chula Vista Traffic Engineer.



Table 3.1.1 indicates the trip generation for the project site assuming development under current light industrial zoning. Table 3.1.2 summarizes the generation of expected trips from the proposed project and recently approved projects identified by the City of Chula Vista.

**TABLE 3.1.1  
TRIP GENERATION  
CURRENT ZONING**

PM Peak Hour Land Use	Intensity	Rate	ADT	Trip	
				%	In
Out Light Ind.	12.23 ac	90/ac	1,100	12%	26 106

Source: Wildan Associates

As shown in Table 3.1.2 the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). Nearby approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would be 1,100 ADT, with 132 trips occurring during the PM peak hour (see Table 3.1.2). Therefore, the proposed project would generate an additional 5,148 ADT with 494 PM peak hour trips compared to the current light industrial zoning. Due to the proposed land uses (primarily commercial) the PM peak hour is critical since only a minimal amount of commercial traffic is expected during the AM peak hour. Analyzing the peak hour is important, because this period generally places the highest demand on the surrounding street system.

Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks and public buildings. A major element is the interaction between commercial connectors and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site. This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 3.1.2 shows the distribution of trips to and from the proposed project site.

As shown in Figure 3.1.2, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35 and 15 percent north and south along



Table 3.1.2

TRIP GENERATION

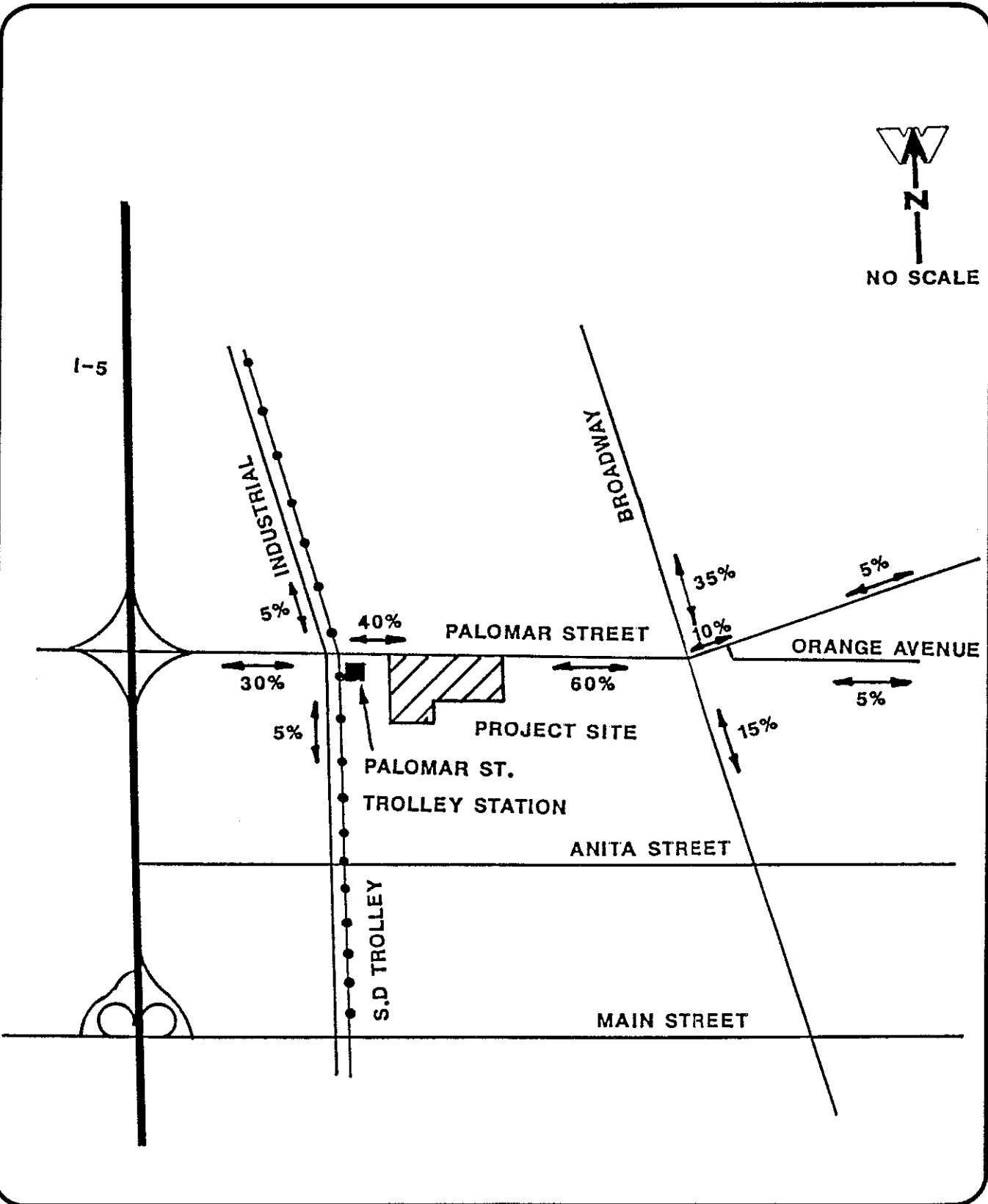
Proposed Project:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>Hour Out</u>
Comm.	127,500 sf	49/1,000 (linked)	6,248	10%	313	313
Comm.	127,500 sf	70/1,000 (driveway)	8,925	10%	447	446
Tract 86-18:*						
Comm. Shops	12,000 sf	40/1,000	480	9%	22	22
Light Ind.	54,000 sf	10/1,000	<u>540</u>	15%	<u>16</u>	<u>65</u>
			1,020		38	87
Home Club, Chula Vista:**						
Home Club	109,848 sf	60/1,000	6,590	9%	300	300
Retail	42,625 sf	40/1,000	1,700	9%	80	80
Fast Food	2,529 sf	700/1,000	1,770	8%	70	70
Light Ind.	265,000 sf	8/1,000	<u>2,120</u>	12%	<u>50</u>	<u>200</u>
			12,180		500	650

\* Trip generation data obtained from addendum to traffic study for Palomar Street Home Club, Chula Vista (J. Federhart & Associates, 4-30-87).

\*\* Trip generation data obtained from Traffic Impact Analysis Home Club, Chula Vista, California, Linscott, Law & Greenspan, 10-20-88.





SOURCE: Willdan Associates

Figure 3.1.2

Trip Distribution

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Broadway, respectively, and 10 percent continuing east along Palomar Street and Orange Avenue. The remaining 40 percent will orient to and from the west along Palomar Street, with 30 percent estimated to access I-5 for destinations north and south.

Figure 3.1.3 shows the assignment of the proposed project's daily and PM peak hour trips. Figure 3.1.4 shows existing ADT plus the proposed project's ADT and other approved projects daily traffic volumes on the surrounding street network. It should be noted that the approved project's daily and PM peak hour trips were assigned consistent with their respective traffic studies. Figure 3.1.5 shows existing traffic plus the proposed project and other approved projects daily traffic volumes assuming the project takes access from the south via Jayken Court to Anita Street.

If the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance.

#### Short-term Street Segment Impacts

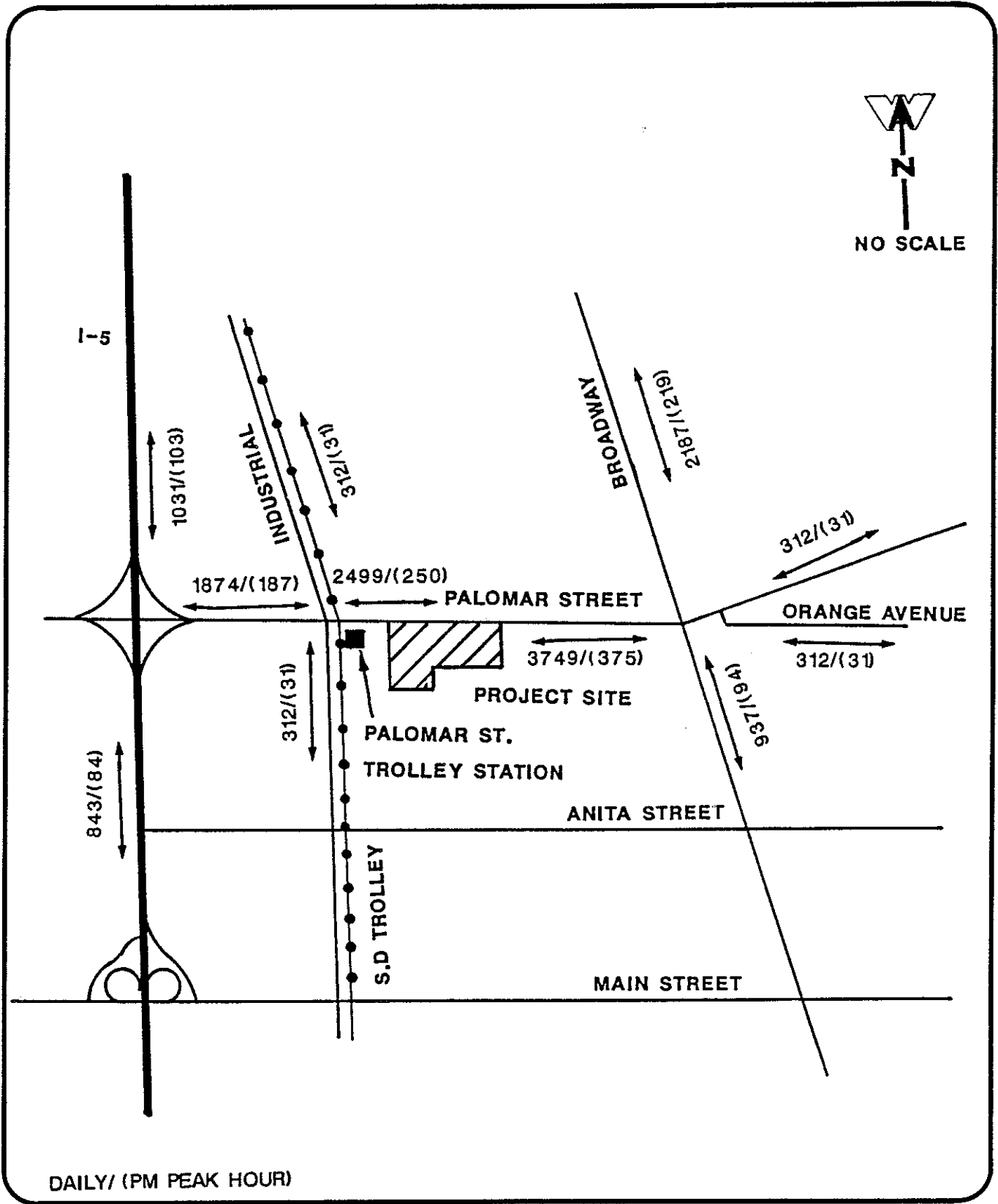
To assess the short-term impacts of the proposed shopping center on street segment capacities, Willdan utilized the City of Chula Vista Proposed Standard Street Classifications (see Table 3.1.3 which was developed through discussions with the City Traffic Engineer. The classifications are based on the approximate Level Of Service (LOS) C capacities and correlates ADT to levels of service for different road classifications. Table 3.1.4 shows the existing, and existing plus the proposed project and the other approved projects ADT and approximate LOS.

As shown in Table 3.1.4, all roadway segments operate at LOS C or better in the project vicinity under existing conditions. With the addition of the approved projects and the proposed Palomar Center, the LOS on a number of segments will drop to LOS E. This is considered a significant impact.

JHK's review of existing segment volumes utilizing standards in the new Circulation Element indicates that Palomar Street is classified as a Class I collector and is currently operating below LOS C. The approximate ADT volume for LOS C operating conditions on the newly developed Circulation Element are shown in Table 3.1.5.





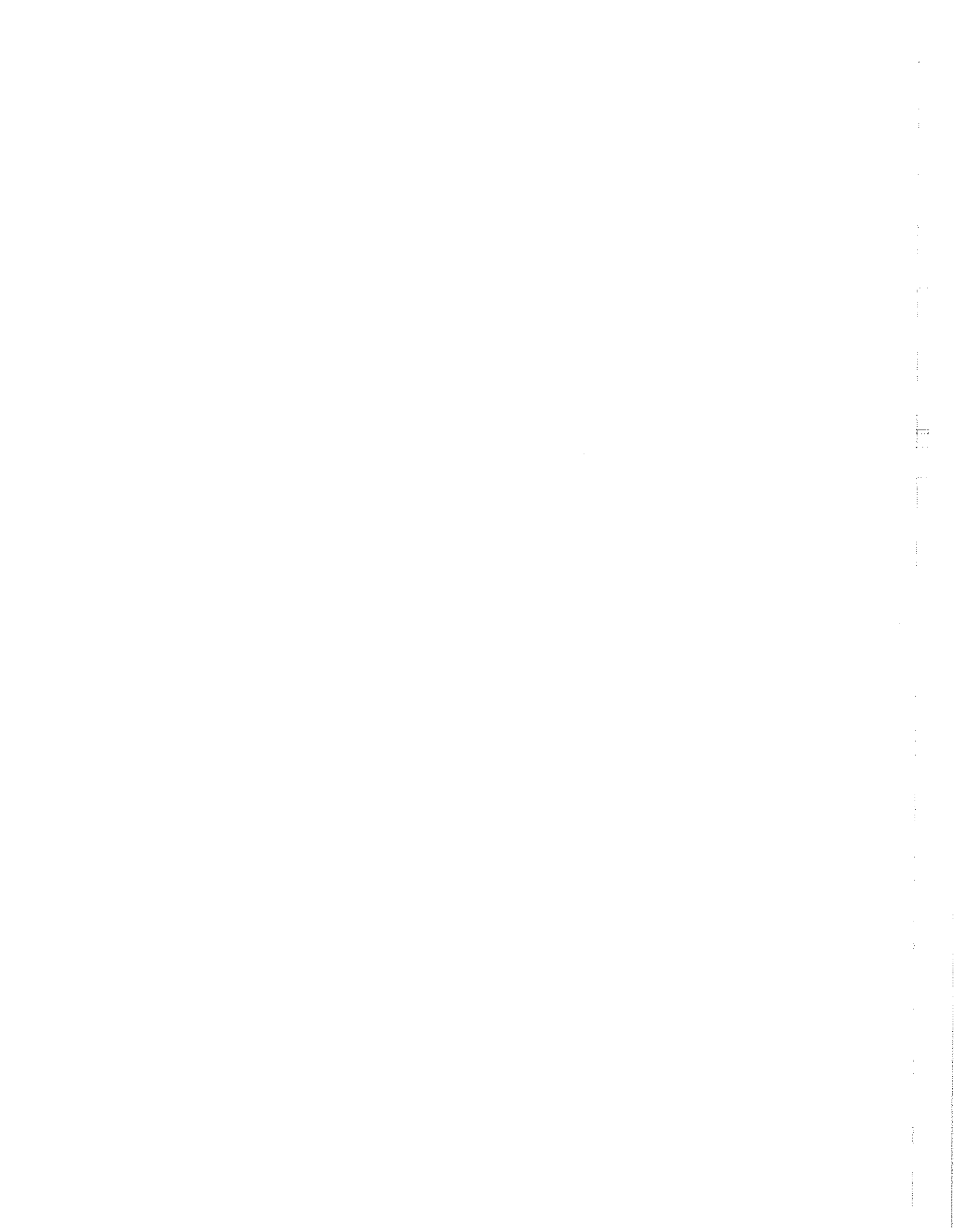


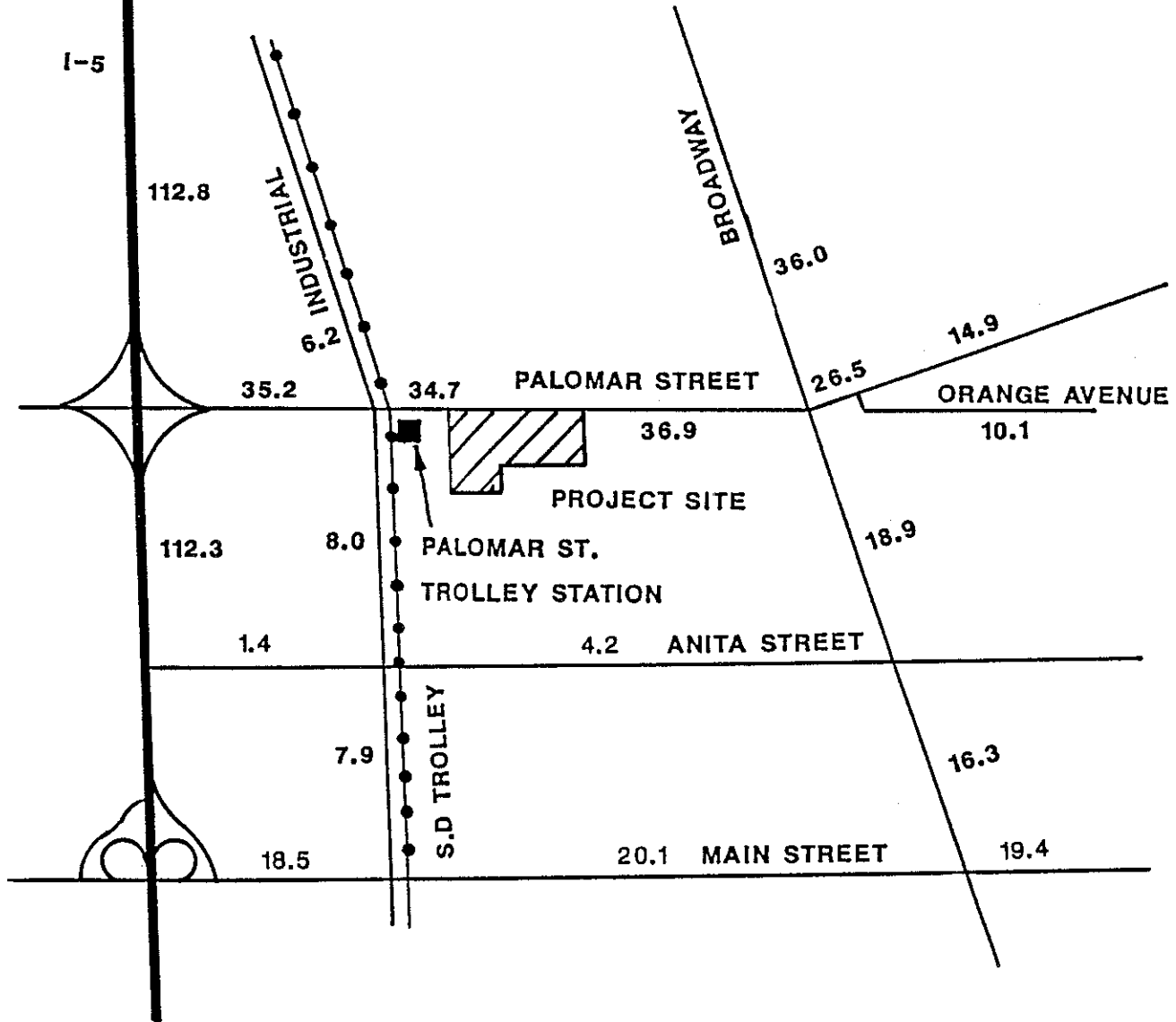
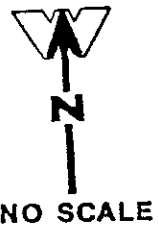
SOURCE: Willdan Associates

Figure 3.1.3

Project ADT with P.M. Peak Hour

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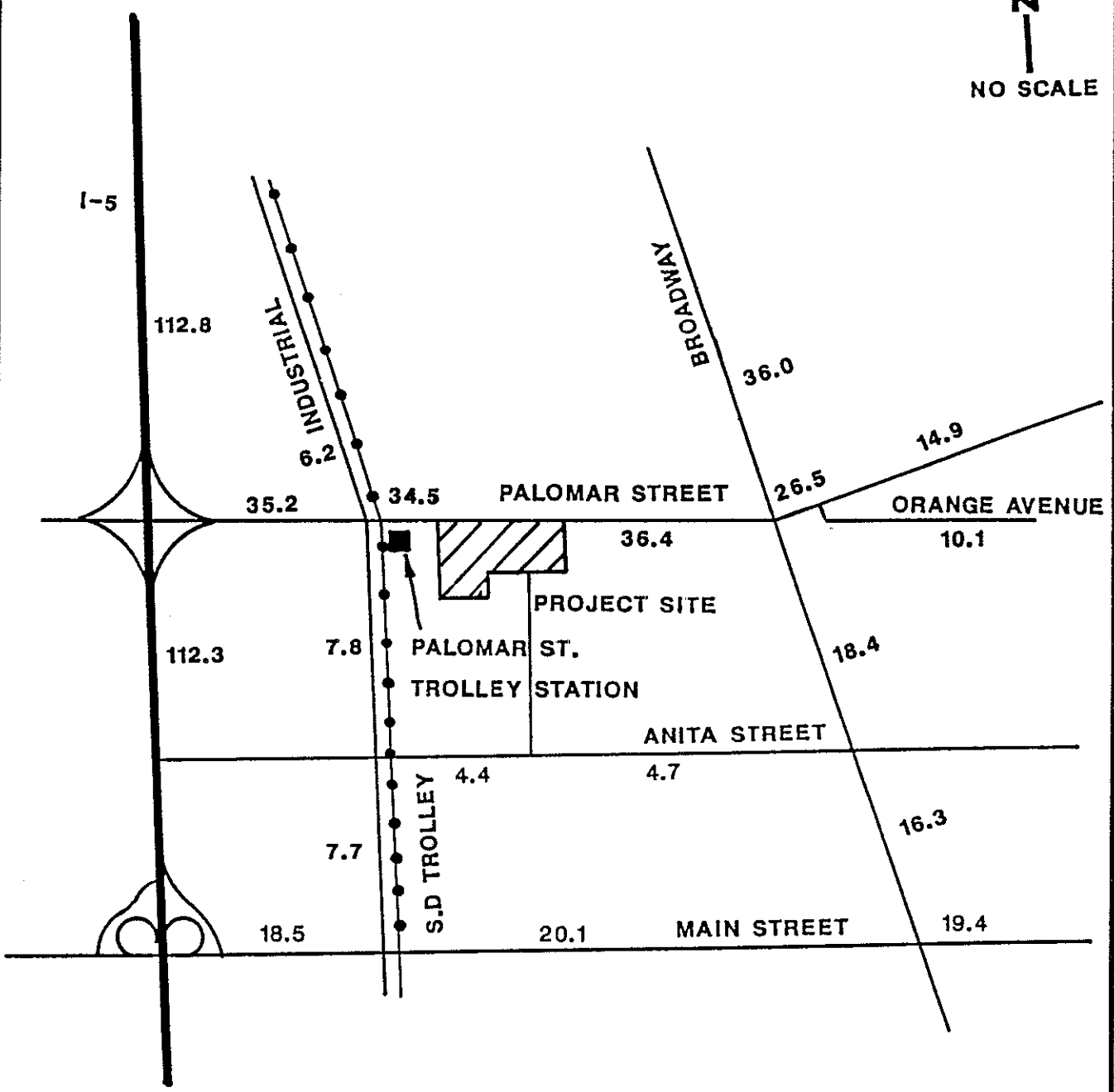
SOURCE: Willdan Associates

Figure 3.1.4

Cumulative ADT

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SOURCE: Willdan Associates

Figure 3.1.5

### Cumulative ADT with Jayken Court Access

A. D. HINSHAW ASSOCIATES

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**Table 3.1.3**

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION  
AVERAGE DAILY VEHICLE TRIPS

ROAD		LEVEL OF SERVICE				
CLASS	X-SECTION V/C RATIO	A (.6)	B (.7)	C* (.8)	D (.9)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500
Major Road	80/100	22,500	26,300	30,000	33,800	37,500
Collector	<del>72/84</del>	16,500	19,300	22,000	24,800	27,500
Modified Collector	52/72	9,000	10,500	12,000	13,500	15,000
Light Collector	40/60	5,600	6,600	7,500	8,500	9,400

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.





**Table 3.1.4**

Selected Street Segments and Associated Levels of Service  
(volumes in thousands)

<u>Street Segment</u>	<u>Configuration</u>	<u>Existing Volume</u>	<u>LOS</u>	<u>Existing + Project *</u>	<u>LOS</u>	<u>With Access to South*</u>	<u>LOS</u>
<u>Palomar St.</u>							
- I-5 to Industrial	4 lanes	29.7	C (<C)	35.2	E (F)	35.2	E (F)
- Industrial/Trolley Station	"	28.2	C (<C)	34.7	E (F)	34.5	E (F)
- Trolley Station/Broadway	"	28.2	C (<C)	36.9	E (F)	36.4	E (F)
- Broadway/Orange	"	24.6	B	26.5	C	26.5	C
<u>Industrial Blvd.</u>							
- N. of Palomar	2 lanes	5.3	A	6.2	A (B)	6.2	A (B)
- Palomar to Anita	"	7.1	A	8.0	B (D)	7.8	B (D)
- Anita/Main	"	7.0	A	7.9	B (D)	7.7	B (D)
<u>Broadway</u>							
- N. of Palomar	4 lanes	25.8	B	36.0	E	36.0	E
- S. of Palomar	"	15.6	A	18.9	A	18.4	A
<u>Anita St.</u>							
- Industrial/Jayken	2 lanes	4.2	A	4.2	A	4.4	A
- Jayken/Broadway	"	4.2	A	4.2	A	4.7	A

\* Includes trips from approved projects.

( ) LOS using new Circulation Element Roadway Classifications



**Table 3.1.5  
NEW CIRCULATION ELEMENT  
ROADWAY CAPACITY STANDARDS**

<u>Facility Type</u>	<u># of Lanes</u>	<u>Approx. LOS C ADT</u>
Expressway	6	70,000
Six-Lane Prime Arterial	6	50,000
Six-Lane Major Street	6	40,000
Four-Lane Major Street	4	30,000
Class I Collector	4	22,000
Class II Collector	2	12,000
Class III Collector	2	7,500

Source: JHK and Associates

Based on a review of the existing segment volumes in the study area JHK prepared Table 3.1.6 which indicates the classification of the study area streets and details the relationship of existing volumes to the roadway capacities listed in Table 3.1.5.

**Table 3.1.6  
EXISTING STUDY AREA SEGMENT VOLUMES**

<u>Study Area Streets</u>	<u>Facility Type</u>	<u>Existing Volume</u>	<u>Relationship to Capacity</u>
Palomar Street	Class I	28,200	Over
Anita Street	Class III	4,200	Under
Main Street	Class I	20,100	Under
Industrial Blvd.	Class III	7,100	Under
Broadway	Four-Lane Major Street	25,800	Under

Source: JHK and Associates

Palomar Street between I-5 and Broadway is forecasted to carry between 34,700 and 36,900 ADT under existing plus project plus approved project conditions (see Table 3.1.4). This relates to LOS E for the four-lane major roadway classification of the



current Circulation Element. Utilizing the new Circulation Element roadway classifications, JHK determined that Palomar Street will operate at LOS F under the existing plus project approved project conditions.

Based on the classification of Palomar Street in the new Circulation Element as a Six-Lane Major Street from I-5 to Broadway and the daily traffic volumes resulting from the development of this site coupled with volumes from other approved projects, it is apparent that additional roadway capacity will be required in the near-term. The existing volume level on this section of Palomar Street will rise from approximately 28,200 vehicles per day (vpd) to between 34,700 and 36,900 (see Table 3.1.4). The current LOS C operating capacity of Palomar Street is 22,000 vpd and the capacity of the new six-lane major facilities which is planned for this segment is 40,000 vpd. Thus, when the new six-lane roadway cross section is constructed, acceptable Levels of Service will be achieved. Also, the construction of this new cross section may restrict access to the Trolley Station site to right-turns in and out only. This restriction will be dictated by the design of a continuous raised median between Industrial Boulevard and the main signalized entrance driveway to the proposed Trolley Center site. Additionally, the traffic signal relocation described previously will provide optimal signal spacing resulting in improved traffic flow along this section of Palomar Street.

Broadway, north of Palomar Street, is projected to operate at LOS E under existing plus project plus approved project conditions as a four-lane major roadway (see Table 3.1.4). No significant impacts are expected on Broadway south of Palomar Street.

The Willdan report, utilizing the current Circulation Element roadway standards indicates that Industrial Boulevard north of Palomar Street will operate at LOS A. Using the new Circulation Element roadway classifications the LOS for this segment is LOS B. The segments of Industrial Boulevard between Palomar and Anita, and between Anita and Main Street, will operate at LOS B using the current Circulation Element roadway classifications. When the new Circulation Element classifications are used, however, the LOS drops to D (see Table 3.1.4). A determination will need to be made by the City of Chula Vista as to which standards are valid for this project so that developer fees associated with the deterioration of levels of service on roadways in the project vicinity can be determined.

The segment of Palomar Street between Broadway and Orange avenue will also be widened to six lanes as part of the Genesis Plaza Commercial Center Project (see Section 2.3).

Anita Street will continue to operate at acceptable levels of service under existing plus project plus approved projects development in their current two-lane configurations.

Should the proposed project take access to Anita Street via Jayken Court in addition to Palomar Street, similar impacts to those noted above are expected to the nearby street segments.

Short-term Intersection Impacts

Intersections are of particular interest, since the LOS at which an intersection operates is an indication of the travel delay which can be expected. With respect to the Palomar Center, the intersections of interest are Palomar Street/Industrial Boulevard, Palomar Street and the project entry, Palomar Street and the Trolley Station entrance, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. Table 3.1.7 summarizes the projected LOS at during the PM peak hour at these intersections for existing conditions and existing plus project plus other approved projects.

TABLE 3.1.7  
INTERSECTION LEVELS OF SERVICE  
IN THE PROJECT VICINITY

<u>Intersection</u>	<u>Existing LOS</u>	<u>Existing + Project LOS *</u>	<u>With Access Assumed South LOS *</u>
Palomar/Industrial	F	C <sup>1</sup>	C <sup>1</sup>
Palomar/Broadway	B	C <sup>1</sup>	C <sup>1</sup>
Palomar/Orange	A	A	A
Broadway/Anita	A	A	A
Industrial/Anita	A/B	B	B
Palomar/Trolley Station	C	C <sup>2</sup>	C <sup>2</sup>
Palomar/Project Entry	N/A	C <sup>1</sup>	C

\* Includes approved projects

1 With mitigation

2 Assumes unsignalized

Source: Willdan Associates

The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the LOS expected. The method used was specified by the City of Chula Vista assigning hourly lane capacities of 1,700 and 1,500 vehicles per hour of green time for through and turn lanes, respectively, and summing of the critical volumes. The appendix to the Willdan Traffic Report

show these calculations and contain a description of conditions and ranges for the various LOS.

Since the Industrial Boulevard/Anita Street intersection is controlled by a four-way stop, the Multi-way Stop Control Analysis described in "Transportation Research Board Special Report No. 209, Highway Capacity Manual" was utilized to analyze this intersection under existing and existing plus project plus approved projects conditions.

Under existing conditions, the Palomar Street/Industrial Boulevard intersection operates at LOS F during the PM peak hour (see Table 3.1.6). However, if this intersection were improved to accommodate one left, one through, and one right turn lane on the northbound and southbound approaches (with left turn phasing) the LOS would improve to "C". When the proposed project's and approved projects peak hour trips are added to this intersection, the LOS remains at "C".

The Palomar Street/Trolley Station intersection currently operates at LOS C with no north or south left turn passing phasing provided. The project proposes to remove the traffic signal from this location and relocate it to the east to provide improved signal spacing. This will not impact the capacity of the Trolley Station access as it will still operate at LOS C. Left turns from the station will be more difficult, although with signals on either side there should be sufficient gaps to allow these turn movements. Should the project develop under the current light industrial zoning and take access from the existing Trolley Station signal, the resulting LOS would be C. However, the impacts associated with the close signal spacing (to Industrial Boulevard) would be magnified under this scenario.

The project entry will operate at LOS C assuming it is signalized and westbound Palomar Street is improved to accommodate dual left turn lanes. This LOS remains at C if access is provided south to Anita Street via Jayken Court.

The intersection of Palomar Street/Broadway is currently fully phased and operates at LOS B during the PM peak hour. The LOS falls to D under the existing plus project scenario. When the proposed project was assumed to have access to Anita Street via Jayken Court, the LOS remains at D. The LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. When access is also assumed south to Anita Street via Jayken Court, the LOS at this intersection is B. The traffic signals of this intersection and the Palomar Street/Orange Avenue intersection will be interconnected and computer controlled to phase the flow of traffic as part of the Genesis Plaza Commercial Center project. All other intersections operate at LOS B or higher during the PM peak hour under either access scenario.

### Long-Term Impacts

The City of Chula Vista is currently revising their Circulation Element in conjunction with the revision to their General Plan. As part of the Circulation Element update, a series of buildout travel forecasts were performed (with four different density scenarios) to estimate future street classifications required to accommodate travel demand. Preliminary forecast volumes for the street network in the project vicinity indicate future volumes will stabilize at today's levels or decrease. This seems reasonable, because land uses in the project vicinity are virtually at buildout today, and future development in this area would be a result of redevelopment. Also, with buildout of planned land uses in the City's eastern area, some existing traffic could be redistributed. Therefore, the Willdan Study considers the existing plus project plus Chula Vista Tract 86-18 scenario as the worst case analysis. It should be noted, that volumes along I-5 will be much higher than today. This is a result of future development in the Otay Mesa area.

### Access

Primary access to the proposed project is via a central driveway opposite the access to the recently constructed shopping center on the north side of Palomar Street. Three other points of access are proposed, which would be restricted to right turns in and out only (this would be in conjunction with the construction of a raised median on Palomar Street along the project frontage).

These right turn only driveways will handle relatively small volumes of traffic. Since Palomar Street is relatively straight and level, there will be good sight distance from all driveways. The proposed traffic signal will also create gaps in traffic. Therefore, Willdan concludes that these driveways will operate without problems.

JHK notes that an alternate access to the Trolley Center site could be provided via Jayken Way to the south. The project will cul-de-sac the north end of Jayken Way south of the project. The final location of the cul de sac will be determined in a future stage. This alternative point of access would provide internal circulation opportunities for vehicles destined to the Trolley Center from Anita Street and the industrial and commercial developments south of the proposed project.

### Internal Circulation and Parking

The current site plan indicates four points of access to the center's internal circulation system. The central access is via the signalized project entry and three right turn only driveways



to the east. Circulation within the center is provided by an inner loop road around the center. Connecting to the inner loop road are a series of parking aisles. If a southerly access is taken from Anita Street via Jayken Court, internal circulation should be reanalyzed at the time a modified site plan is available.

The plan also indicates four restaurant pads on the north side of the property (adjacent to Palomar Street) which could include drive-through operations. This could significantly affect internal traffic patterns should all four restaurants operate with drive-through windows. Since specific details regarding the restaurant site plan and drive-through operations are not available at this time, they should be evaluated on an individual basis at the conditional use permit stage of approval. At that time, issues such as stacking and site specific internal circulation should be addressed to the satisfaction of the City Traffic Engineer.

The site plan shows 637 parking spaces to serve the 137,500 sq.ft. shopping center. This equates to one parking space for every 200 sq.ft. of GFA. This is consistent with the City of Chula Vista zoning requirements for commercial uses. The spaces are located evenly throughout the site, therefore no parking impacts are anticipated.

#### Summary of Impacts

The proposed Palomar Trolley Center will add approximately 6,250 newly generated ADT to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the proposed project's traffic is added to that of recently approved projects, Palomar Street is projected to operate at LOS E under the existing Circulation Element classification and LOS F under the new Circulation Element classification.

Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects.

### 3.1.3 MITIGATION MEASURES

To mitigate the adverse impacts to the local street network, the following measures are recommended to be implemented:

1. Improve Palomar Street to the Major Street Classification with a raised median along the frontage of the Palomar Center. This will increase the roadway capacity and improve traffic flow.

As a prerequisite to development, the Palomar Trolley Center project will be required to improve Palomar Street to 6-lane Major Street standards. ~~It will still operate at LOS-E according to the Roadway Classification Standards contained in the Circulation Element, as indicated in the Willdan report. This segment of Palomar Street will not operate at LOS-E until buildout conditions occur and it is upgraded to a six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus, it~~ It is recommended that six through lanes of capacity be provided along this segment of Palomar Street between I-5 and Broadway to address near-term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area. The City does not have right-of-way to expand Palomar Street on the north side. Sufficient space to add lanes exists, however, and may be obtained by eliminating on-street parking on that segment.

The City of Chula Vista and CALTRANS will reconstruct the I-5/Palomar Street interchange. The Palomar Trolley Center project will be required to widen the segment of Palomar Street between I-5 and Industrial Boulevard to 6-lane Major Street standards. This action will mitigate the projected LOS E and help traffic flow of this roadway segment. The intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since the analysis for the Palomar Center was conducted under peak conditions, the overall LOS E is overstated.

2. The project will improve the Industrial Boulevard approaches to the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing. This will improve PM peak hour LOS to "C" from the existing LOS "F".
3. Relocate the traffic signal at the Palomar Street/Trolley Station entry to the main project entry. This will create a beneficial impact for traffic flow along this section of Palomar Street.

~~JHK recommends that a detailed traffic signal removal analysis be conducted before relocating the traffic signal~~

~~from the Trolley Station entry to the project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection.~~ JHK further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by the provision of a continuous raised median extending along Palomar Street between I-5 and Broadway.

Also, the new signalized intersection at the main entrance driveway to the Trolley Center site should be aligned with the existing access driveway located along the north curb line of Palomar Street in this vicinity. The relocation of the traffic signal to the project entry should provide improved signal spacing and the availability of adequate gaps in the traffic stream. ~~A detailed analysis will provide more insight to these unknown factors.~~

4. Provide an internal connection between the proposed project and the Trolley Station. This will allow left turning vehicles from the Trolley Station to use the Palomar Center's signalized entry to avoid very long traffic delays during the PM peak hour. This configuration would require an access easement agreement ~~or agreement~~ that would perpetuate the public's right to access [B-4].
5. Provide dual left-turn lanes on the westbound approach of the Palomar Street/Project Entry intersection. This will allow the intersection to operate at LOS C during the PM peak hour.

JHK recommends that a raised median be incorporated into the design of the main entrance driveway serving the Trolley Center site. This raised median should be continuous for a distance of approximately 150 feet south of the signalized intersection at Palomar Street.

6. Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection. This will result in LOS C with the Willdan report trip distribution assumption. Under the revised JHK trip distribution and assignment the LOS at this intersection would drop to LOS C. The LOS at all other project intersections would remain constant under this revised trip distribution and assignment scenario. The project will also provide dual left-turn lanes and one right-turn lane on southbound Broadway north of its intersection with Palomar Street. With this mitigation, the LOS at this intersection will meet the City's threshold standards. These intersection improvements may help alleviate some of the existing congestion on the roadway segment of Broadway north of Palomar Street.

7. Conduct a detailed site analyses for the individual restaurants at the time plans are submitted for Design Review. JHK further recommends that the total number of access driveways for this site be reviewed by the City of Chula Vista. This review should concentrate on the specific requirements for individual access driveways and the spacing between access driveways on the Trolley Center site as well as the spacing between Trolley Center driveways and driveways serving other developments along the south curb line of Palomar Street.
8. ~~The project will cut-de-sac--the--north--end--of--Jayken-Way south-of-the-SDG&E-right-of-way,--south-the-project.~~

#### 3.1.4 ANALYSIS OF SIGNIFICANCE

The increase in traffic associated with the proposed project and other approved projects in the area will significantly impact the level of service (LOS) on Palomar Street between I-5 and Broadway. This segment would operate at LOS E under the four-lane major road classification of the current City Circulation Element. ~~If--the-new--Circulation-Element--(currently under-review)--classification-of--a-Class--F-Collector-is-applied the-segment-would-operate-at-LOS-F.--This-impact-can-be-mitigated by-improving-Palomar-Street-to-the-ultimate-six-lane-Major-Street classification-of-the-new--Circulation-Element.~~ Improvements to the Palomar Street/Broadway intersection may help alleviate some of the existing congestion on the roadway segment of Broadway north of Palomar Street.

The City's traffic threshold standards are:

1. City-wide: Maintain LOS C or better at all intersections, with the exception that LOS D may occur at signalized intersections for a period not to exceed a total of two hours per day.
2. West of I-805: Those signalized intersections which do not meet Standard #1 above, may continue to operate at their current (1987) LOS, but shall not worsen.
3. City-wide: No intersection shall operate at LOS F as measured for the average weekday peak hour.

These standards will be met if the recommended mitigation measures are implemented. The intersections that would operate below standard without mitigation are Palomar Street/Industrial Boulevard, Palomar Street/Broadway, and Palomar Street/Project entry.

The intersection of Palomar Street/Broadway is projected to fall to LOS D under the existing plus project scenario. This LOS

can be improved to C if eastbound Palomar is improved to accommodate a dual left turn lane. The Palomar Street/Industrial Boulevard intersection currently operates at LOS F during the P.M. peak hour. If the recommended mitigation measures are implemented the LOS will improve to C. The Project Entry intersection with Palomar Street would operate below LOS C unless the intersection is signalized and westbound Palomar Street is improved to accommodate dual left lanes.

### 3.2 COMMUNITY SOCIAL FACTORS

An Economic Impact Analysis for the Palomar Trolley Center was prepared by CIC Research, Inc. to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the proposed project. Of primary concern are retail centers located along Broadway; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis. This section presents the findings of a socioeconomic analysis. The complete study is contained in Appendix D.

#### Methodology and Assumptions

Data collection tasks include both primary and secondary approaches. The primary data gathering involved a detailed survey of retail businesses and centers in the Montgomery Specific Plan area. This survey allowed firsthand observation of business activity levels, traffic and pedestrian circulation patterns. However, the main benefit of this survey was the identification of all retail businesses in the Montgomery Specific Plan area and on-site estimated of gross square footage. This approach was preferred to utilizing the City's computerized data base which provides acreages by Standard Industrial Classification code classifications (SIC). Retail and other observed businesses were then grouped into the categories employed by the State Board of Equalization, which are nearly equivalent to groupings in which consumer demand estimates were generated by National Decision Systems (NDS). The resulting data base, provided both supply and demand estimations, was then analyzed in relation to the changed expected from the subject development.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory, Traffic Analysis for Palomar Trolley Center, and SANDAG Series VII demographic forecasts. Interviews and meetings with City planning and traffic engineering staff allowed CIC to adjust or supplement the published data.

Principal among the assumptions employed in the analysis was that within six months of opening, the subject development would effectively be fully occupied. This assumption was made for three reasons:

1. The primary hypothesis, and purpose of the study, is that the size of the subject center will cause it to be a major element in the area's retail base. It is expected that the center will have at least one anchor

space leased prior to obtaining construction financing and that leasing of other spaces will follow. Thus, it is reasonable to assume a high level of occupancy.

2. This study is not intended to represent a feasibility analysis for the subject development.
3. Only a balanced mix of retail can be assumed to occupy the subject center's non-anchor space. No firm plans have been set determining the eventual tenant mix. Concluding that a certain type of retail should not be represented in the center due to possible over-supply would constitute a feasibility determination, and would also invalidate the original propose of the study which is to identify impacts to other businesses and facilities resulting from development of the subject site.

The 127,365 square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shop, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 45,280; miscellaneous shops and a drug store would comprise 51,750 square feet. In-line shops would occupy 15,000 square feet, and the five pads would provide 15,335 square feet of space (see Figure 3.2.1).

Four points of access are planned from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes relocating the existing traffic signal at the entrance to the trolley station to this central driveway.

Development of the study site as proposed would increase the importance of the Palomar/Broadway commercial node as a shopping district. Interaction with existing retail at the Ralphs/Target center (225,900 square feet) directly to the north, and the Price Club center's 291,400 square feet, together with retail projects along Broadway will create a synergistic relationship from which the subject site may benefit. The current 28,200 average daily trips (ADT) passing the site would also support retail businesses, and, unlike other centers in the immediate area, the center is elongated as it fronts on Palomar Street, providing a high degree of visibility to the project.

The factors described above combine to create a situation that favors the viability of the subject development, and all other things being equal, could draw sales away from other nearby businesses. The remainder of this section analyzes the potential competition and impact from the planned center.





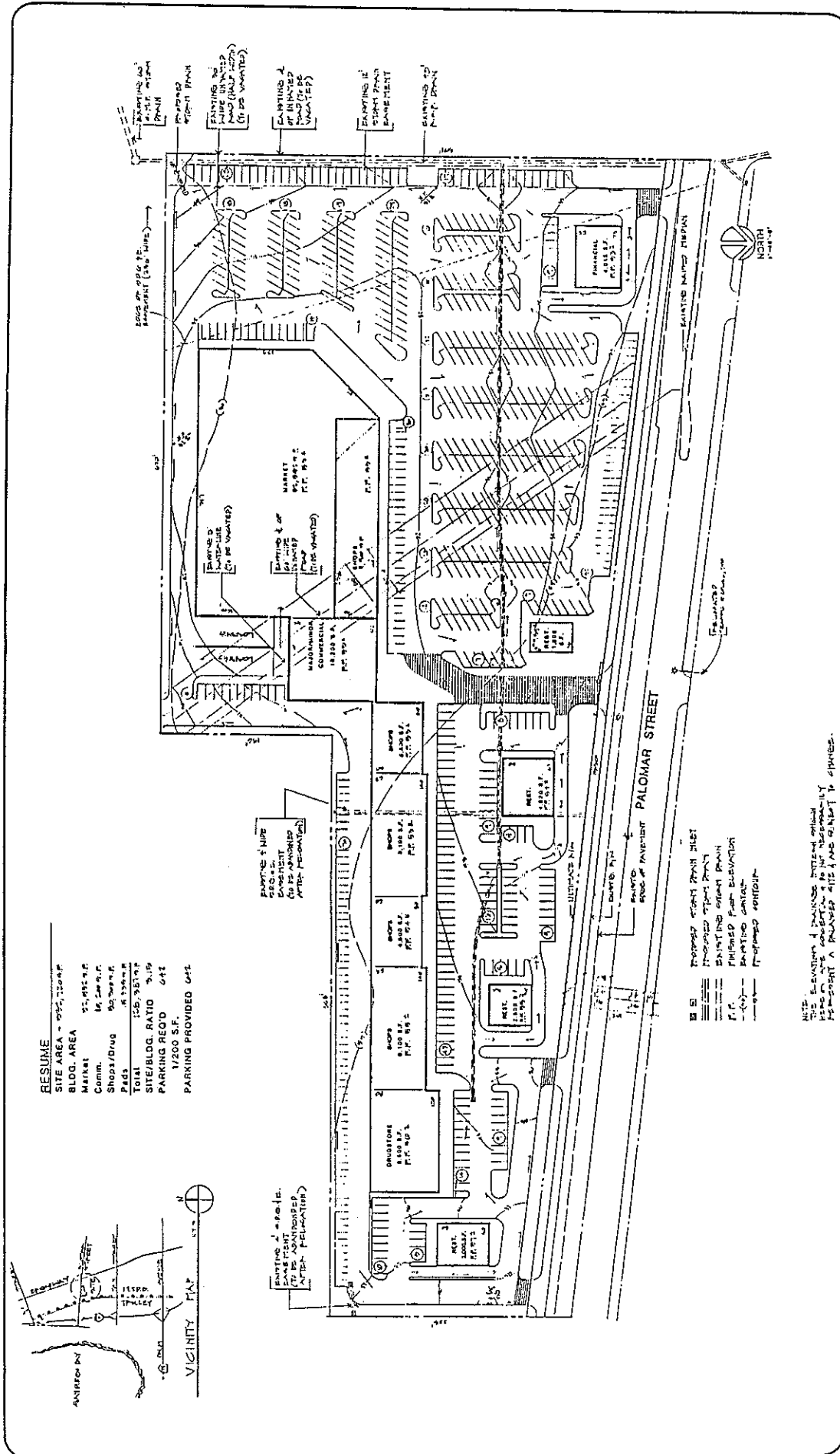


Figure 3.2.1  
Site Plan

A. D. HINSHAW ASSOCIATES

SOURCE: Brown Leary Architecture and Planning



The proposed development would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Alternatively, depending on the chosen tenants, the site could represent a community shopping center with an off-price department store as the principal anchor.

Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area generates from 15 to 20 percent of sales and could extend the trade area to a 3.0 mile radius.

Community centers are typically developed around a department store or a large variety store ranging from 100,000 to 300,000 square feet with a site area of 10 to 30 acres. The primary trade area generally extends three to five miles. The secondary trade area can extend the trade area to a seven to ten mile radius.

Given the large amount of nearby community-sized shopping centers, the market area is expected to draw support from a customer base of approximately three miles.

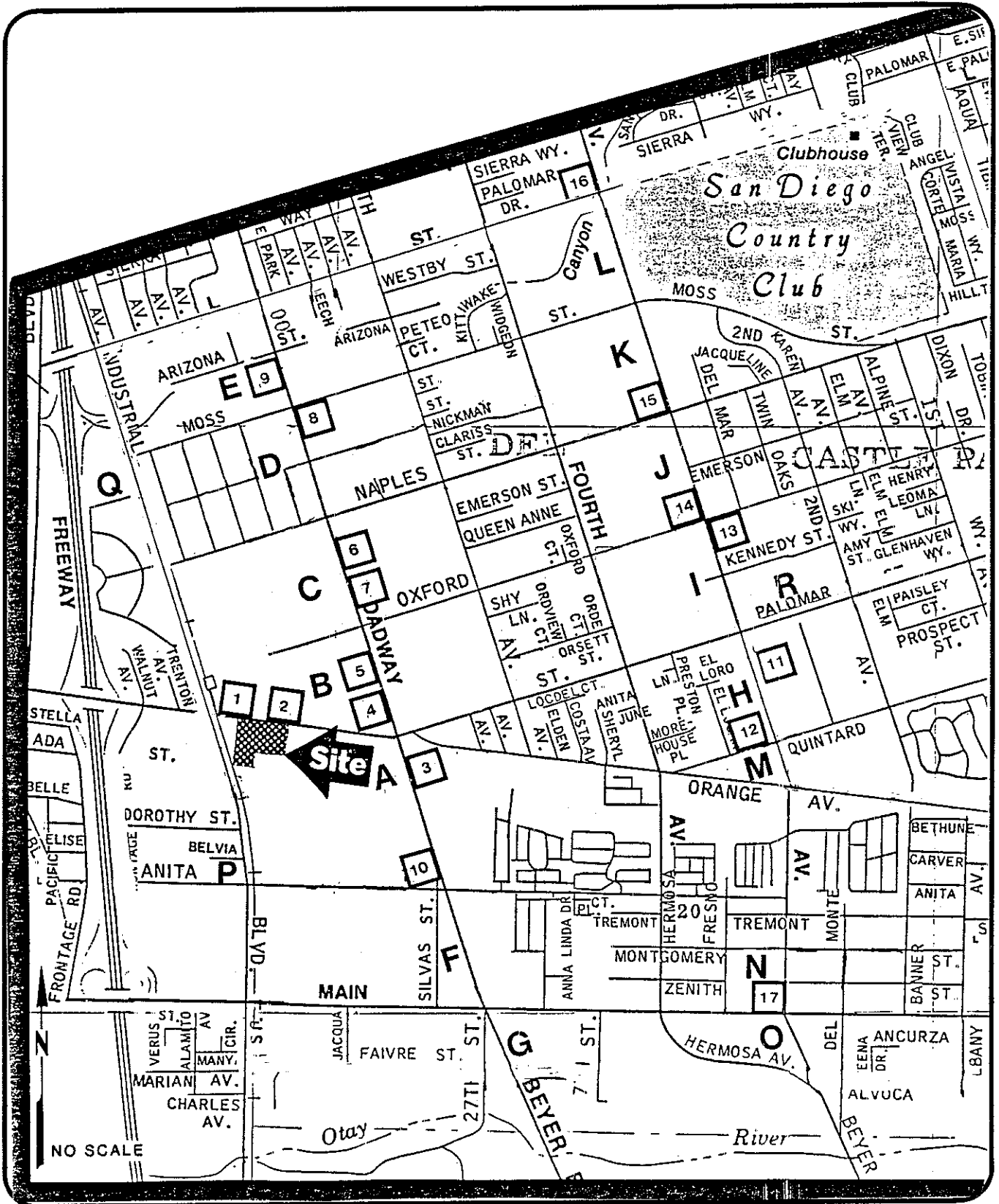
### 3.2.1 PROJECT SETTING

A determinant of the market impact area is the location of competitive retail space in relation to the proposed development. CIC Research conducted a windshield survey to locate, classify and measure all existing retail establishments within the Montgomery Specific Plan area (see Figure 3.2.2). The retail locations are graphically presented in Figure 3.2.2 by retail center and by blocks of freestanding and strip retail space. The following paragraphs detail specifics for each center and block in terms of estimated square feet by retail classification.

Based on two possible combinations of the envisioned tenant types for the subject development and the location of potentially competitive projects, CIC determined the potentially impacted retail areas to include Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway Street clearly represents the largest retail market with a total of 830,378 square feet, of which 661,896 are classified as anchored retail centers ranging in size from 6,000 to 290,000 square feet. Third Avenue

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SOURCE: CIC Research, Inc., 1988

Figure 3.2.2

## Existing Retail Centers

A. D. HINSHAW ASSOCIATES

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represents the second largest retail market with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of anchored retail space in centers and 11,600 square feet of freestanding or small strip space centers. These three streets represent the majority of retail developments that may be potentially physically impacted due to an oversupply of retail space caused by the development of the subject property.

#### Traffic Patterns and Volumes

Traffic distribution for the proposed project (see Figure 3.2.3) was determined by Willdan Associates and confirmed by JHK and Associates. The majority of trips (60%) are projected to be generated from traffic originating from the east along Palomar Street and only 15 percent will orient from Broadway south of Palomar. This would indicate that retail developments along Broadway north of Palomar will have higher potential to be impacted both positively and negatively by the proposed development than retail developments along Broadway south of Palomar. Only ten percent of the traffic to the site is projected to orient from Palomar and Orange Avenue east of Broadway, indicating a potentially slight impact on retail development along Third Avenue.

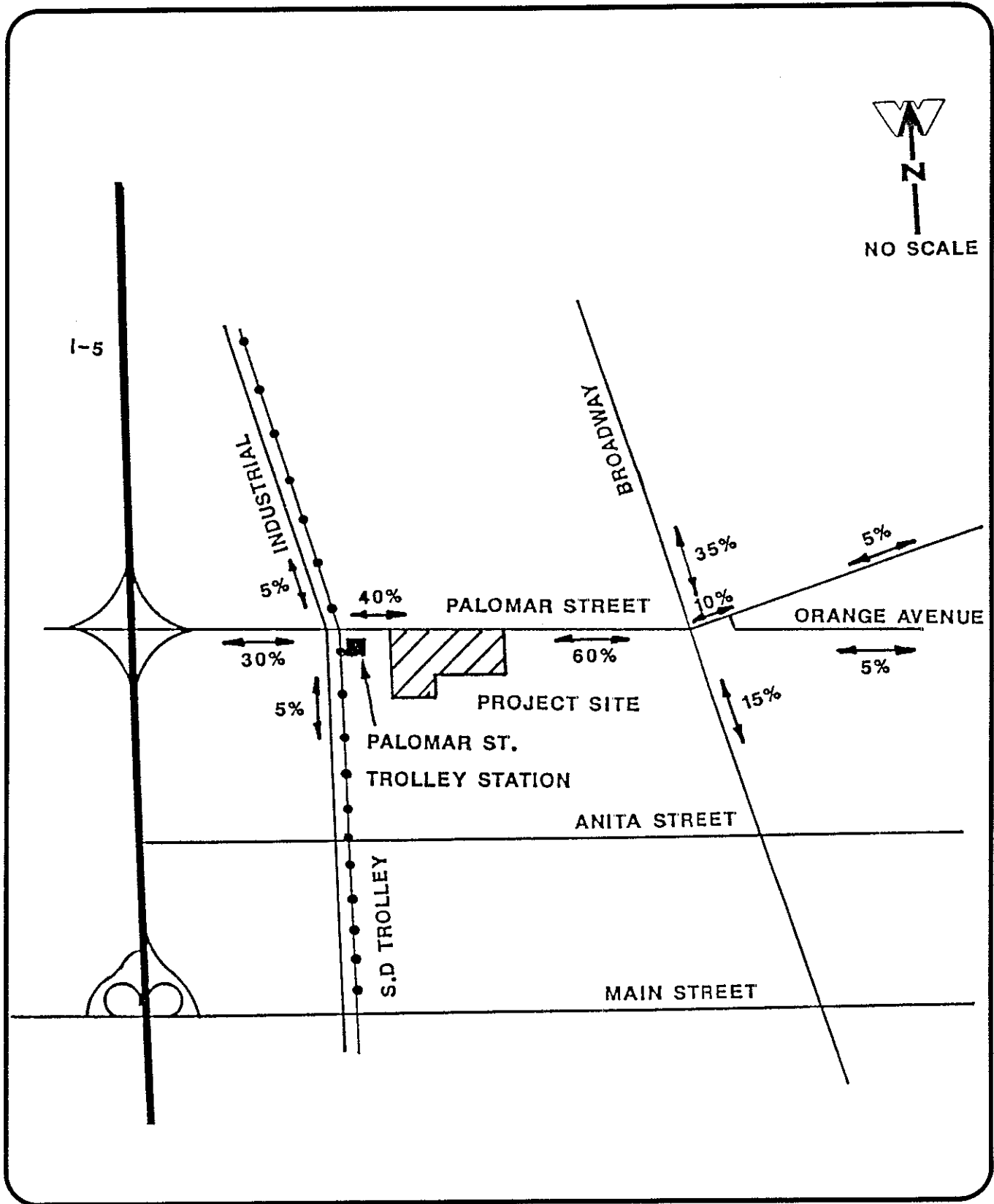
A projected 40 percent of the traffic to the site will orient to and from the west. Of this 40 percent, ten percent will orient from Industrial Boulevard, which has virtually no competitive retail space. An estimated 30 percent of the traffic to the study site will orient to and from Interstate 5. Interstate 5 (I-5) travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. However, it can be assumed that trip origins would be concentrated in proximity to the site with less frequency at greater distances from the Palomar Street interchange with I-5.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exits are presented in Table 3.2.1. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

Palomar Street between I-5 and Industrial Boulevard has experienced the highest percentage change in traffic volumes from 1986 to 1987 (26.9%). The traffic patterns indicates Palomar Street is the major western entrance to the Montgomery Specific Plan area. The major traffic routes within the market impact area includes Palomar east to Broadway and north on Broadway.







SOURCE: Willdan Associates

Figure 3.2.3

### Traffic Distribution

A. D. HINSHAW ASSOCIATES



### Table 3.2.1

AVERAGE DAILY TRAFFIC VOLUMES  
(in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>% Change 1986-1987</u>	<u>% Change 1983-1987</u>
<b>Broadway</b>							
L Street & Naples Street	18.6	18.6	18.6	23.2	25.9	11.6%	39.2%
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	18.8	43.2
Palomar Street & Main Street	12.8	12.8	12.8	16.4	15.6	-4.9	21.9
<b>Industrial</b>							
Naples Street & Palomar Street	4.3	4.3	3.9	5.6	5.3	-5.4	23.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	-6.6	65.1
<b>Main Street</b>							
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	11.7	37.7
<b>Orange Avenue</b>							
Melrose Avenue & Interstate 805	17.9	18.8	18.8	18.8	23.2	23.4	29.6
<b>Otay Valley Road</b>							
Melrose Avenue & Interstate 805	14.0	14.0	14.0	14.9	18.9	26.8	35.0
<b>Palomar Street</b>							
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4	23.4	29.7	26.9	39.4
Industrial Blvd. & Broadway	22.0	22.0	22.1	22.9	28.2	23.1	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	-6.1	10.3
Fourth Avenue & Third Avenue	13.5	13.5	13.5	13.9	14.0	0.7	3.7
Third Avenue & Hilltop Drive	11.6	11.6	11.6	12.1	12.4	2.5	6.9
<b>Telegraph Canyon Road</b>							
L Street & Interstate 805	28.4	28.4	28.4	30.7	37.5	22.1	32.0
<b>Third Avenue</b>							
L Street & Moss Street	19.0	22.0	22.7	22.7	21.6	-4.8	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5	21.1	2.9	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7	19.7	19.6	-0.5	-2.0
Palomar Street & Quintard St.	15.6	15.6	15.6	15.9	18.0	13.2	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	5.8	15.9

Source: San Diego Association of Governments  
CIC Research, Inc., 1988



Broadway, extending north from Palomar Street to Naples Street and to L Street, experienced the largest traffic increase from 1986 to 1987 (18.8% and 11.6%, respectively) compared to the southern section of Broadway (Palomar Street to Main Street) with traffic decreasing 4.9 percent during the same period.

The percentage changes (1986 to 1987) in traffic volumes on the southern section of Third Avenue at Palomar Street/Quintard Street and Quintard Street/Main Street are greater (13.2% and 5.8%, respectively) than the northern section at Oxford Street/Palomar Street, Naples Street/Oxford Street, and L Street/Moss Street (-0.5%, 2.9% and 4.8%, respectively). However, in terms of actual numbers, the northern section has higher recorded traffic counts than the southern sections of Third Avenue.

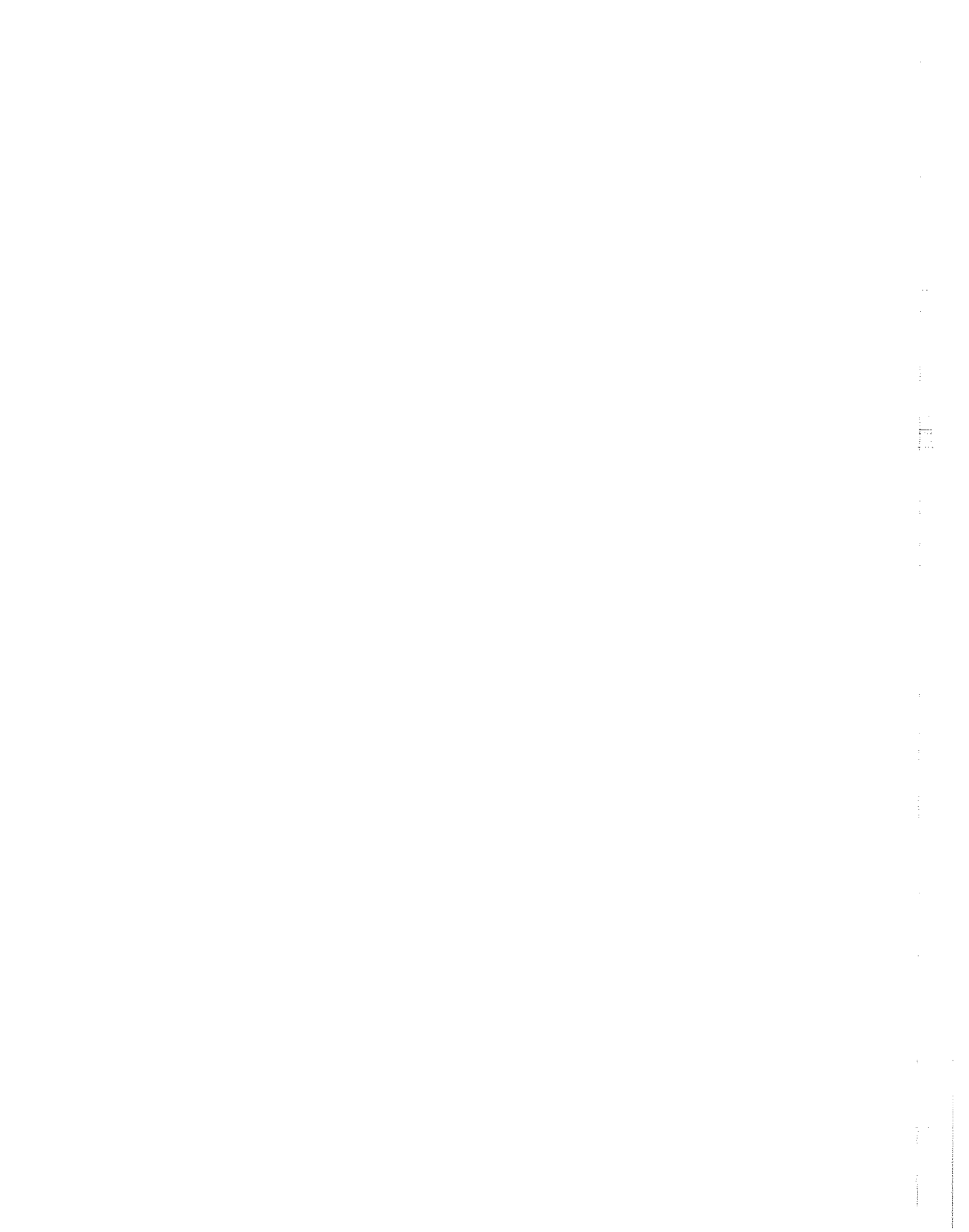
The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1987 ADT volumes ranging from 15,600 to 27,900 as compared to Third Avenue which ranges from 14,600 to 21,600. Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

#### Demographic Profile

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Table 3.2.2 and 3.2.3). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway. A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within the primary market area (1.5 mile radius) the population is projected to grow at 0.1 percent per year from 30,258 in 1988 to 30,413 in 1993 (see Table 3.2.2). The 3.0-mile radius is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. These growth rates represent the slowest population increases in the four categories. Also, housing unit projections from 1988 to 1993 for the 1.5 mile radius represent the slowest growth (0.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile radius. Again, these areas represent the slowest growth compared to the 5.0 or 10.0 mile areas. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table 3.2.3. The income level within a trade area is important not only in terms of total dollars available, but also in relation to spendable income by retail category. The 1.5-mile radius has the lowest average



**Table 3.2.2**

MARKET AREA POPULATION AND HOUSING ESTIMATES

	1988		1990		1993		Annual Percentage Change	
	<u>1980</u>	<u>Estimate</u>	<u>Estimate*</u>	<u>Estimate*</u>	<u>Estimate</u>	<u>Estimate</u>	<u>1980-90</u>	<u>1988-93</u>
Population:								
1.5-mile distance	30,512	30,258	30,336	30,413	(.06)%	.1%		
3.0-mile distance	144,540	164,919	171,748	178,576	1.7	1.6		
5.0-mile distance	210,985	252,223	265,719	279,215	2.3	2.1		
10.0-mile distance	514,576	606,458	635,945	665,431	2.1	1.9		
Housing Units:								
1.5-mile distance	11,748	12,908	12,956	13,004	1.0	.2		
3.0-mile distance	48,416	57,449	59,936	62,423	2.2	1.7		
5.0-mile distance	70,384	86,301	91,015	95,729	2.6	2.1		
10-mile distance	166,511	203,670	215,030	226,390	2.6	2.1		

\*1990 estimates by CIC Research, Inc.

Source: National Decision Systems





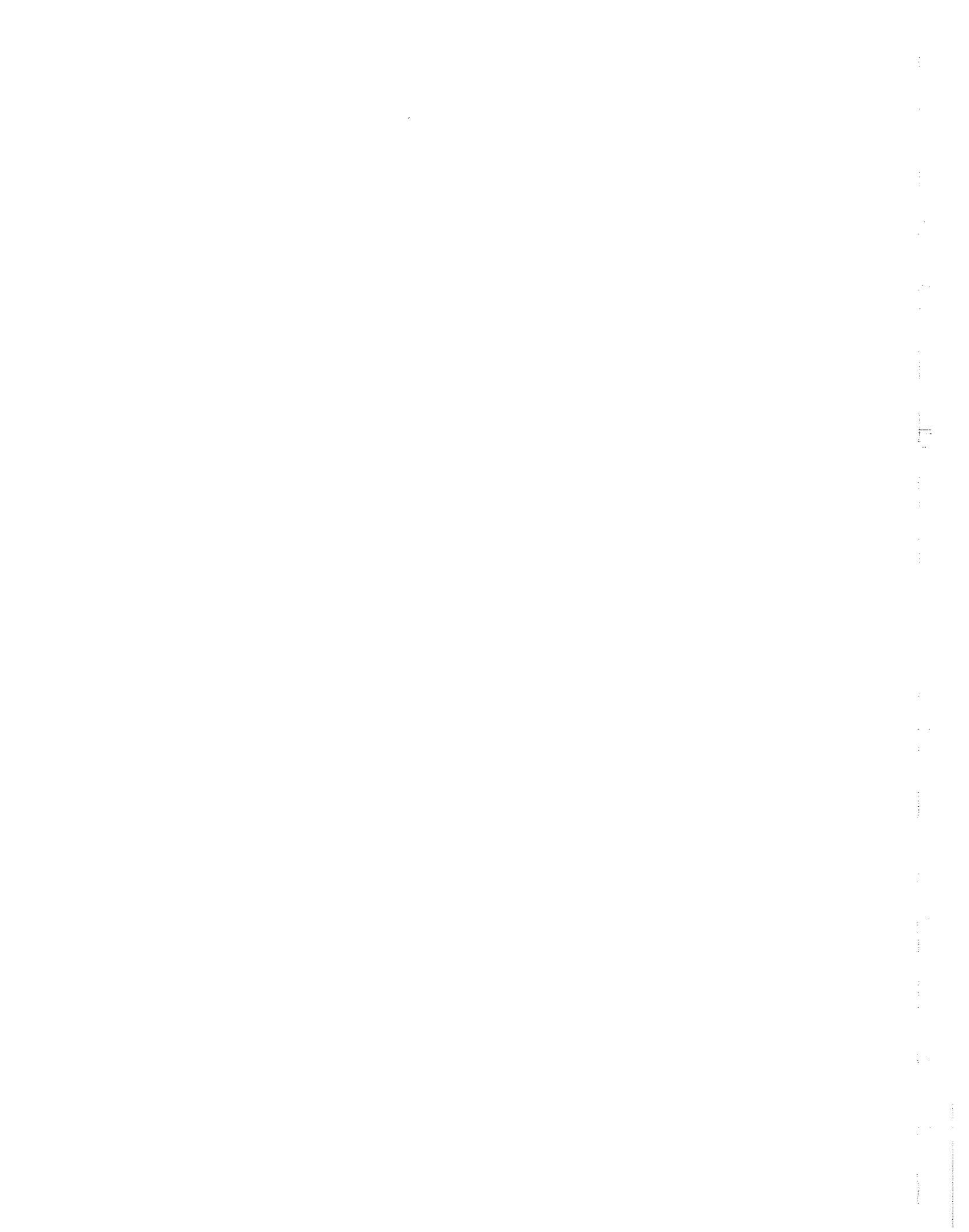
Table 3.2.3

MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile</u> <u>Distance</u>	<u>3.0 Mile</u> <u>Distance</u>	<u>5.0 Mile</u> <u>Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems



household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). Within the 1.5 mile radius the majority (53%) have annual household incomes ranging from \$7,500 to \$24,999, whereas the 3.0 mile radius has only 39 percent of the population within the same income range. The population within the 1.5 mile radius will spend a higher proportion of household income on food, compared to the 3.0 or 5.0 mile radii, due to the lower average household income. On the other hand, the residents within the 3.0 and 5.0 mile areas will spend a higher proportion of their income on nonfood items. The income level of trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

#### Retail Expenditure Potential

Current (1988) and forecasted (1990) retail expenditures by State Board of Equalization (SBE) categories for the four areas are detailed in Tables 3.2.4 and 3.2.5. Retail expenditures are relative to the number of households and retail establishments within the given market area.

Potential expenditures for food stores (1988) represent the largest proportion of total retail sales within each category, approximately 22.6, 21.7, 21.6 and 21.8 percent for the 1.5, 3.0, 5.0 and 10.0 mile areas, respectively (see Table 3.2.4). The discrepancies are due to the variance in household incomes between the four categories as explained in the previous section. On the other hand, potential expenditures for the "other retail" category are proportionately lower for the 1.5 mile radius (8.6%), compared to the 3.0 mile radius (10.5%), 5.0 mile radius (10.5%), and the 10.0 mile radius (10.2%). These trends are indications of the lower disposable incomes for the residents of the 1.5 mile radius.

#### Employment Base Retail Expenditure Potential

Given the large amount of industrially zoned land within the trade area, an analysis of the employment base retail expenditures potential was performed. CIC determined the total occupied square feet of industrial space within the market area (see Table 3.2.6). An estimate of employment was calculated using a ratio of three employee per 1,000 square feet of industrial space. A total of 4,311 employees were estimated to work within the market area. These 4,311 employees currently support a major portion of 83,910 square feet of retail space within the market area (see Table 3.2.7). Employment base-supported retail space was generally identified as eating and drinking establishments of convenience centers located adjacent to an industrial area. Employment projections in Table 3.2.7 are



**Table 3.2.4**

RETAIL EXPENDITURE POTENTIAL  
1988  
(values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$38,916	\$192,317	\$289,283	\$670,186
Eating & drinking place	17,283	85,179	128,122	296,957
Drug & proprietary	6,421	30,078	45,214	105,721
Gasoline service station	15,500	78,485	118,091	272,475
General merchandise	26,970	128,644	193,423	450,831
Apparel & accessories	7,864	42,279	63,657	145,467
Furniture, furnishings & equip.	7,850	45,637	68,769	155,296
Automotive dealer	29,008	150,580	226,631	520,791
Hardware, lumber & garden	7,892	40,764	61,348	141,091
Other retail	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
Total retail	<u>\$172,531</u>	<u>\$887,239</u>	<u>\$1,335,200</u>	<u>\$3,072,930</u>

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Source: CIC Research, Inc., 1988  
National Decision Systems



**Table 3.2.5**

RETAIL EXPENDITURE POTENTIAL  
1990  
(values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$42,918	\$238,076	\$374,078	\$865,469
Eating & drinking place	19,060	105,446	165,677	383,486
Drug & proprietary	7,081	37,235	58,467	136,527
Gasoline service station	17,094	97,160	152,706	351,870
General merchandise	29,743	159,253	250,119	582,197
Apparel & accessories	8,673	52,339	82,316	187,854
Furniture, furnishings & equipment	8,657	56,496	88,927	200,547
Automotive dealer	31,991	186,409	293,061	672,542
Hardware, lumber & garden	8,704	50,463	79,330	182,203
Other retail	<u>16,352</u>	<u>115,470</u>	<u>181,893</u>	<u>405,644</u>
Total retail	<u>\$190,273</u>	<u>\$1,098,347</u>	<u>\$1,726,574</u>	<u>\$3,968,339</u>

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Source: CIC Research, Inc., 1988  
National Decision Systems





Table 3.2.6

MARKET AREA\*  
EMPLOYMENT BASE

<u>Project</u>	<u>Address</u>	<u>Total Occupied Square Feet</u>	<u>Est. # of Employees**</u>
Palomar Commerce Center	635-675 Naples	78,000	234
Chula Vista Oxford Park	635 Oxford	30,000	90
Southrail Business Park	Jayken Street	128,000	384
	698 Anita St.	18,000	54
South Bay Bus. Park	653 Anita St.	67,000	201
Rancho Anita Industrial	757 Anita St.	129,000	387
	779 Anita St.	12,000	36
	799 Anita St.	10,000	30
	817 Anita St.	10,000	30
Brittania Bus. Center	675 Anita St.	95,000	285
South City Bus. Center	2240 Main St.	160,000	480
Bay View Commerce Ctr.	1021 Bay Blvd.	265,000	795
Bayside Business Park	1120 Bay Blvd.	50,000	150
	1008 Ind. Blvd.	17,000	51
	916 Ind. Blvd.	19,000	57
Glade Industrial Park	2446 Main St.	62,000	186
Norsouth Industrial Park	2222 Verus St.	45,000	135
Sky Trio Industrial Park	7020 Alamitos Ave.	20,000	60
Redlich Industrial Park	2540 Main St.	60,000	180
	2203 Verus St.	-0-	-0-
	2400 Main St.	<u>162,000</u>	<u>486</u>
	Total	1,437,000	4,311

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\*Market area includes industrial projects located along the Interstate 5 corridor from "L" Street to Main Street, within Chula Vista.

\*\*Estimated number of employees was calculated using a ratio of three employees per 1,000 square feet.

Source: CIC Research, Inc., December 1988



Table 3.2.7

MARKET AREA INDUSTRIAL EMPLOYMENT  
BASE AND RETAIL SUPPORT PROJECTIONS\*

	<u>1988</u>	<u>1995</u>	<u>2000</u>	<u>2010</u>	<u>Annual Percent Change</u>
Employees	4,311	4,834	5,025	5,728	1.3%
Retail space**	83,910	94,095	97,822	111,486	1.3%
Supported by area industrial employees (sq.ft.)					

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\*Projections (growth rates) were based on SANDAG employment projections for Chula Vista.

\*\*Based on a field survey conducted by CIC Research, Inc., 1988.

Source: SANDAG, July 1988  
CIC Research, Inc., 1988



based on SANDAG forecasts for Chula Vista. An estimated additional 1,250 square feet of retail space will be supported annually. Although these increases are not large, the rate of growth in employment at 1.5 percent annually is significantly greater than the meager 0.1 percent annual increases forecast for population growth.

### 3.2.2 IMPACTS

In this section, the market analysis and determination of potential impacts to businesses and facilities are described. Under the first three headings the subject retail project and existing businesses/facilities are described, followed by the determination of possible impacts.

#### Tenant Plan

The proponent, Pacific Scene Properties, provided tenant profile information to CIC Research from its leasing agent. The broker, Flock & Avoyer Commercial Real Estate, is seeking tenants to comprise a supermarket and/or supermarket and drug center. Alternatively, the center may be anchored by users such as Lionel Leisure (similar to Toys R Us), National Lumber, or other nonfood retailers. This choice between alternatives could greatly complicate the market analysis, not only because of the two options presented, but also because of the resulting tenants and the amount of space they would occupy may be completely different from what is contemplated at this time. In addition, the type and size of auxiliary shops remains undefined. Therefore, the analysis will consider the tenant types currently proposed, and employ a degree of sensitivity to the comparison with existing and proposed retail businesses to evaluate those that could be impacted the most by a given assortment of tenants at the study site.

The basic elements of the current plan include a 45,280 square foot market, a 15,00 square foot space for major commercial user, and 51,750 square feet for smaller shops with an 8,000 to 10,000 square foot drug store. There are also four pads for restaurants ranging in size from under 2,000 square feet to over 4,000 square feet. Apparently three restaurants will be fast foods, and the fourth a coffee shop (Carrows, Denny's) or other national or regional chain (refer back to Figure 3.2.1).

Potential auxiliary tenants for the supermarket/drug store concept could include dry cleaners, one-hour photo, delicatessen, yogurt shop, etc. The alternative off-price center could have major tenants such as T.J. Maxx, Marshall's or 3-D bed & Bath. Smaller tenants could include Clothestime Women's Wear, Public Image, Warehouse Records, Patrini's Shoes or Volume Shoes, etc. Possible additional tenants for either concept could be food uses

such as pizza, ice cream, donut, yogurt, or a delicatessen (if not applicable above). In other words, these options could represent a typical tenant mix at a large convenience center, a neighborhood or community retail center.

#### Existing Retail Base

Of the 1,614,453 square feet of commercial space surveyed in the Montgomery Specific Plan area, 1,489,941 is occupied by retail tenants/owners. The difference is accounted for by 55,761 square feet in office, service or medical use, and 68,751 square feet of vacant space (4.4% vacancy). The subject project would add 127,365 square feet or 8.2 percent to the current base of occupied and vacant retail space.

A field survey conducted by CIC Research identified 17 retail centers within or adjacent to the Montgomery Specific Plan area. An additional 555,669 square feet is distributed in the area as strip retail, primarily along Broadway and Third Avenue. Figure 3.2.2 locates these centers and strip retail areas. The map code in the first column of Table 3.2.8 on the following pages keys to the center locations in Figure 3.2.2 identifying the address/location, types of tenants, square footage, occupancy rates, and weekday and weekend observed parking lot occupancies to each specific location.

The principal retailing areas are found along Broadway and Third Avenue. The largest centers are located along these streets. Two centers can be designated as community shopping centers, i.e. the Price Club center (291,441 square feet) and the Ralphs/Target center (225,924 square feet). These centers (map codes 4&5) create a strong destination retail district that extends to the limits of the Price Club's trade area, as it overlaps with similar trade areas for its Santee warehouse to the northeast and Morena Boulevard facility to the north. The subject development would receive some benefit from being adjacent to this assemblage of destination retail uses, since many shoppers would pass by the site between Broadway and I-5. Other "spin-off" or convenience centers already exist, i.e. Palomar Village (home improvements, map code 1), Trolley Square (miscellaneous retail, map code 2), and Palomar Square (convenience, map code 3).

In Figure 3.2.4 and Table 3.2.9, four new centers are described which will further add to this concentration of retail space. Olsher commercial center (map code 20) and Genesis Plaza (map code 21) would be located on the east side of Broadway. An expansion of the Price Club center would add more square footage at that location (map code 18). Somerset Plaza is the largest planned center, comprising 110,208 square feet. In total, the destination and surrounding centers will comprise 720,424 square feet of retail space for the vicinity of Palomar Street and

## Table 3.2.8

### EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS

Map Code	Area	Project/Address	Type of Tenant	Sq. Ft.	Occupancy Rate	Weekday Observed Activity	Weekend Observed Activity
1	Palomar	Palomar Village/ 700 Palomar St.	hardware appliance vacant	8,772 12,300 <u>14,250</u> 35,322	60%	N/A	N/A
2	Palomar	Trolley Square/ 700 Palomar St.	clothes bakery restaurant stereo other hair	16,380 2,704 2,600 1,456 7,176 <u>780</u> 31,096	100	37%	29%
3	Broadway	Palomar Square/ 1300 Broadway	jewelry donut liquor fast food other service vacant	1,000 1,000 4,640 8,000 10,790 1,000 <u>8,320</u> 34,750	77	38	40
4	Broadway	Ralphs Center/ 1200 Broadway	clothes Target Ralphs fast food stereo auto	36,002 105,625 55,250 12,900 10,647 <u>5,500</u> 225,924	100	69	77
5	Broadway	Price Club/ 1200 Broadway	clothes Price Club spec. food fast food home furn. hardware other services	14,450 118,800 3,100 2,800 31,396 114,445 5,750 <u>700</u> 291,441	100	N/A	N/A
6	Broadway	Naples Center/ 1100 Broadway	other services vacant nonretail	2,624 3,840 10,048 <u>3,940</u> 20,452	51	N/A	N/A
7	Broadway	Broadway Point/ 1100 Broadway	clothes convenience fast food home furn. auto other vacant nonretail	3,360 952 5,600 3,360 784 6,608 4,928 <u>2,072</u> 27,664	82	N/A	N/A





Table 3.2.8  
(continued)

Map Code	Area	Project/Address	Type of Tenant	Sq. Ft.	Occupancy Rate	Weekday Observed Activity	Weekend Observed Activity				
8	Broadway	Arch Plaza/ 1000 Broadway	spec. food	760	51%	N/A	N/A				
			restaurant	1,600							
			hair	800							
			vacant	<u>3,000</u>							
				6,160							
9	Broadway	Cal-Store Plaza/ 900 Broadway	sports	17,325	83	N/A	N/A				
			vacant	<u>3,440</u>							
				20,765							
10	Broadway	Main Center/ 1700 Broadway	boots	3,440	96	57%	32%				
			convenience	1,680							
			rest./bar	18,200							
			toy	720							
			vacant	1,440							
			nonretail	<u>9,260</u>							
				34,740							
11	Third	Vons Center/ 1300 Third	clothes	8,509	100	75	74				
			discount	8,188							
			drug	17,850							
			Vons	33,441							
			restaurant	3,805							
			furniture	16,080							
			services	5,855							
			nonretail	<u>6,499</u>							
									100,227		
			12	Third				Big Bear Center/ 1300 Third	clothes	2,500	96
discount	5,000										
Big Bear	26,010										
liquor	2,500										
restaurant	11,160										
hardware	30,753										
other	3,500										
services	5,000										
vacant	<u>3,660</u>										
					90,083						
13	Third	Plaza Del Rey/ Third & Oxford	liquor	1,800	94	N/A	N/A				
			fast food	1,350							
			stereo	5,400							
			other	2,925							
			services	4,725							
			vacant	1,125							
			nonretail	<u>2,475</u>							
			19,800								
14	Third	Pacific Com. Bank/ Third & Oxford	drug	1,500	91	N/A	N/A				
			spec. food	3,300							
			restaurant	6,600							
			stereo	1,800							
			other	9,600							
			services	3,000							
			vacant	3,000							
			nonretail	<u>3,000</u>							
									31,800		

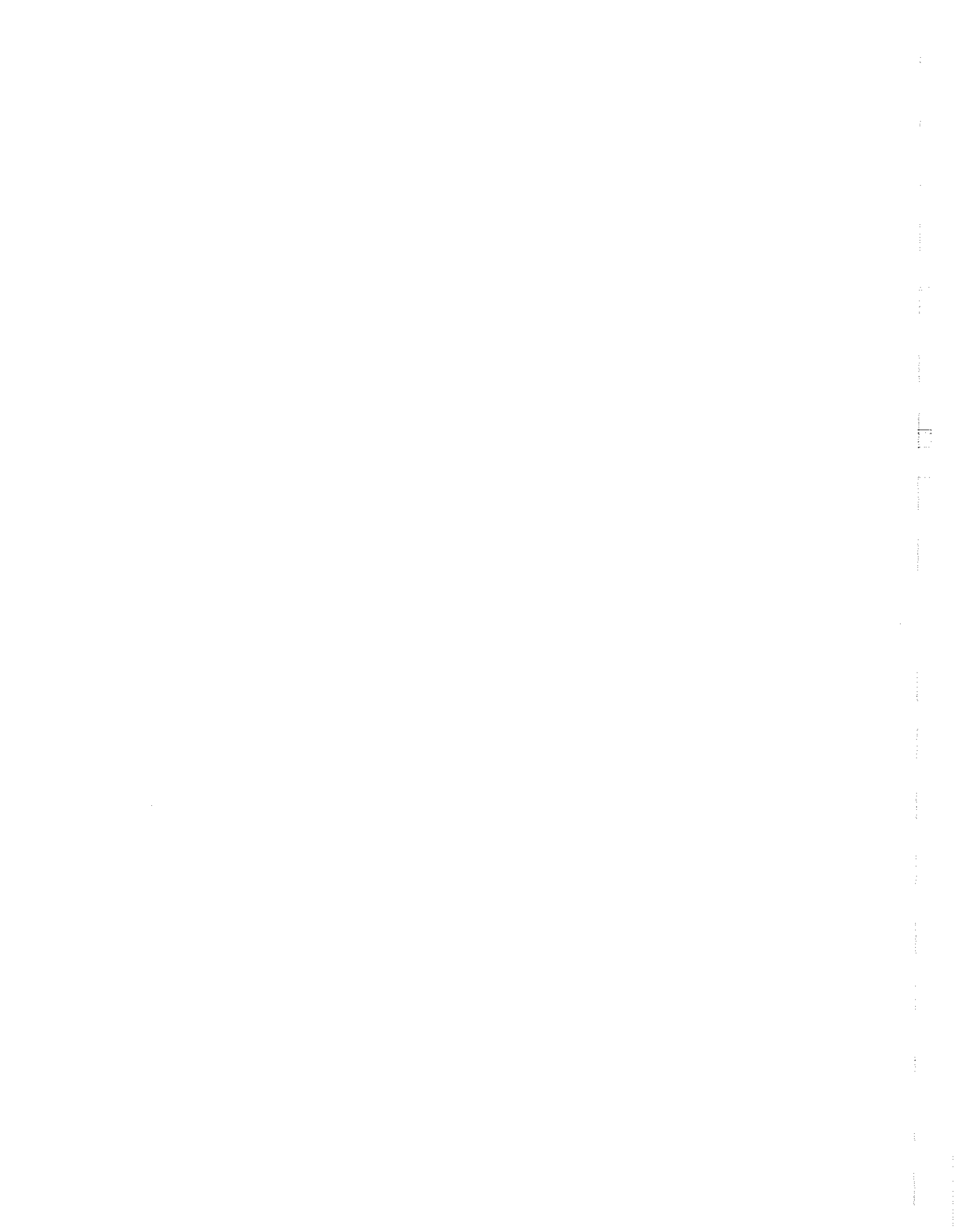


Table 3.2.8  
(continued)

<u>Map Code</u>	<u>Area</u>	<u>Project/Address</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>	<u>Weekday Observed Activity</u>	<u>Weekend Observed Activity</u>
15	Third	Naples Plaza/ Third & Naples	spec. food liquor restaurant stereo other service nonretail	4,200 1,250 6,525 1,800 4,175 5,625 <u>3,625</u> 27,200	100%	N/A	N/A
16	Third	Longs/Vons Ctr./ 800 Third	drug Vons spec. food fast food other services	22,750 22,100 1,320 1,020 1,580 <u>2,340</u> 51,110	100	69	78
17	Third	Health Spa Center 1100 Third Avenue	clothing merchandise fast food services	1,200 1,600 4,250 <u>3,200</u> 10,250	100	N/A	N/A

Freestanding Businesses by Block (excluding major centers)

<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
A	Broadway	1300 Broadway	convenience restaurant dry cleaners	2,000 6,000 <u>2,000</u> 10,000	100%
B	Broadway	1200 Broadway	clothes furniture other retail services nonretail	1,600 10,230 4,640 800 <u>800</u> 18,070	100%
C	Broadway	1100 Broadway	rest./bar auto dealer toy auto repair vacant	11,500 N/A 14,400 6,000 <u>3,000</u> 34,900	91%
D	Broadway	1000 Broadway	convenience spec. food restaurant furniture services vacant nonretail	5,580 1,800 11,400 6,000 12,532 5,060 <u>6,300</u> 48,672	90%
E	Broadway	900 Broadway	services	7,200	100%
F	Broadway	1600 Broadway	auto sales	N/A	100%



### Table 3.2.8

(continued)

Freestanding Businesses by Block (excluding major centers)

<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
G	Broadway	1700 Broadway	discount	22,500	93%
			convenience	2,400	
			market	8,100	
			other retail	1,680	
			auto repair	11,680	
			vacant	<u>3,280</u>	
			49,640		
H	Third	1300 Third	convenience	2,400	100%
			market	10,000	
			rest./bar	11,300	
			furniture	2,250	
			other retail	4,500	
			services	13,000	
			nonretail	<u>5,700</u>	
			49,150		
I	Third	1200 Third	drug	1,050	100%
			spec. food	3,850	
			fast food	17,650	
			furniture		
			& appl.	8,750	
			auto repair	3,400	
			services	3,050	
			nonretail	<u>2,550</u>	
			40,300		
J	Third	1100 Third	rest./bar	9,500	95%
			appliances	2,300	
			auto repair	6,700	
			other retail	7,600	
			services	3,050	
			vacant	<u>1,500</u>	
K	Third	1000 Third	clothes	4,400	99%
			donut	1,500	
			K-Mart	100,362	
			liquor	2,000	
			fast food	18,850	
			appliances	1,600	
			furniture	25,800	
			hardware	3,600	
			auto parts	2,600	
			gasoline	2,000	
			other retail	7,900	
			services	11,425	
			vacant	600	
			nonretail	<u>6,600</u>	
			189,237		
L	Third	900 Third	jewelry	400	100%
			fast food	4,200	
			auto parts	5,500	
			gasoline	2,000	
			auto glass	1,000	
			services	<u>400</u>	
			13,500		



Table 3.2.8  
(continued)

Freestanding Businesses by Block (excluding major centers)

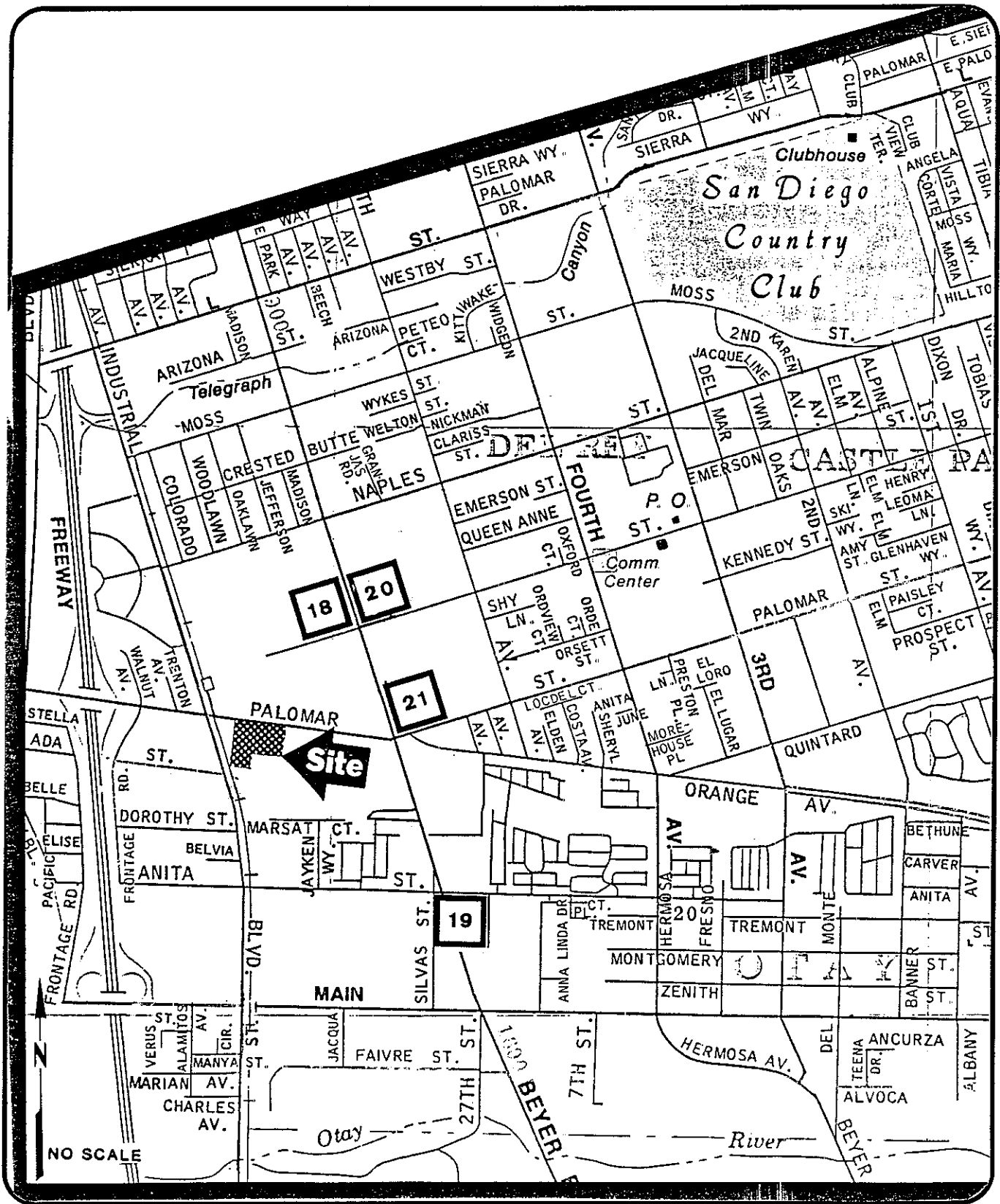
<u>Map Code</u>	<u>Area</u>	<u>Block &amp; Street</u>	<u>Type of Tenant</u>	<u>Sq. Ft.</u>	<u>Occupancy Rate</u>
M	Third	1400 Third	donut pizza	1,500 1,500 <u>3,000</u>	
N	Third	1600 Third	convenience spec. food fast food auto repair	3,000 1,200 5,250 4,000 <u>13,450</u>	100%
O	Third	1700 Third	convenience liquor gasoline	3,000 2,250 2,000 <u>7,250</u>	100%
P	Ind.	1400 Industrial	convenience restaurant	2,000 2,000 <u>4,000</u>	100%
Q	Ind.	1000 Industrial	toy services nonretail	15,390 6,720 2,940 <u>25,050</u>	100%
R	Palomar	200 Palomar	restaurant other vacant	8,000 1,500 2,100 <u>11,600</u>	82%

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Source: CIC Research, Inc., 1988







SOURCE: CIC Research, Inc., 1988

Figure 3.2.4

## Planned Retail Developments

A. D. HINSHAW ASSOCIATES



Table 3.2.9

PLANNED RETAIL DEVELOPMENTS

<u>Map Code</u>	<u>Development</u>	<u>Location</u>	<u>Expected Tenant Types</u>	<u>Sq. Ft.</u>	<u>Project Status</u>
18	Price Club Center	Broadway & Oxford	Silo, Carls Jr., retail	13,000 2,600 <u>1,500</u> 17,100	N/A
19	Sommerset Plaza	Broadway & Anita	retail/food showroom	52,626 <u>57,582</u> 110,208	5-89 completion
20	Olsher Commercial	1181 Broadway	retail	9,955	6-89 completion
21	Genesis Plaza	Broadway & Palomar	retail	26,720	N/A

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Source: Chula Vista Planning Department  
Area commercial brokers  
CIC Research, Inc., 1988



Broadway. In addition, strip retail on the three blocks in this area amounts to 62,970 square feet (map codes A, B & C). Again, most outlets are convenience or spin-off uses drawing from the customer base generated by the destination retail, and from residents in the immediate market area.

The locations of centers and strip retail in relation to Palomar Trolley Center will partially determine competitiveness. However, the large amount of space also creates more drawing power for the area. This effect results from the type of retail businesses present (i.e. destination or convenience). In some cases, adding more of the same type of outlets can create an over-supply situation. Alternatively, developing more of a single use, such as fast food restaurants, can create a level of critical mass that will generate additional activity for similar uses.

Retail businesses in the centers and strip facilities surveyed are categorized by State Board of Equalization groupings in Table 3.2.10. Further classification into market base designations were made to distinguish those supported primarily by the residential community and others catering to daytime employment, particularly employees of nearby industrial parks. A total of 1,489,941 square feet representing 320 establishments were identified. The largest number of outlets were found in the eating and drinking places category (70) with over one-fourth catering the employment base. The greatest square footage is in the general merchandise group. In terms of the overall distribution of firms and square footage, there is a relatively high concentration of restaurants, while automotive retailers are quite few.

#### Sales Estimation

As was stated in the methodology and assumptions section, it is not the purpose of this report to determine the feasibility or tenant mix for the site. However, to estimate potential market area impacts, two concepts provided by the proponent's leasing agent were expanded to the point at which the project's influence could be tested.

In Table 3.2.11, the supermarket/drug store concept is presented. Table 3.2.12 presents a square footage and sales distribution for an off-price center. Sales per square foot for each scenario were developed from the Urban Land Institute's "Dollars and Cents of Shopping Centers" and represent medians; however, sales levels could exceed these amounts for outlets that are particularly appropriate for the location, and income levels of area households. The major difference between the two approaches is represented by the sales rate and square footage for a supermarket in Scenario 1, producing and indicated total gross income for the entire center of \$27,998,000.



**Table 3.2.10**

**ESTIMATED SQUARE FOOTAGE OF  
RETAIL SPACE BY TYPE OF BUSINESS**

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	65,766	33			65,766	33
General merchandise	389,550	9			389,550	9
Drug stores	43,150	4			43,150	4
Food stores	177,311	24	26,836	10	204,147	34
Packaged liquor	14,440	6			14,440	6
Eating and drinking places	139,830	51	53,730	19	193,560	70
Home furnishings and appliances	141,169	21			141,169	21
Building materials and farm implements	157,570	6			157,570	6
Auto supplies/dealers	14,384	8			14,384	8
Service stations	7,600	4			7,600	4
Other retail stores	<u>136,759</u>	<u>54</u>	<u>1,344</u>	<u>1</u>	<u>138,103</u>	<u>55</u>
Retail store total	1,287,529	220	81,910	30	1,369,439	250
All other outlets	<u>118,502</u>	<u>69</u>	<u>2,000</u>	<u>1</u>	<u>120,502</u>	<u>70</u>
Total space surveyed	<u>1,406,031</u>	<u>289</u>	<u>83,910</u>	<u>31</u>	<u>1,489,941</u>	<u>320</u>

Source: CIC Research, Inc., December 1988

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Table 3.2.11

SUBJECT PROJECT POTENTIAL SALES -  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	15,000	100.52	1,508
Drug stores	9,000	179.09	1,612
Food stores			
supermarket	45,280	371.37	16,816
specialty	<u>3,500</u>	128.82	<u>451</u>
	48,780		17,267
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>29,250</u>	155.33	<u>4,543</u>
	31,250		4,784
All other outlets			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	
 Total	 <u>127,365</u>		 <u>\$27,998</u>

Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"



Table 3.2.12

SUBJECT PROJECT POTENTIAL SALES -  
OFF-PRICE SHOPPING CENTER  
(1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	10,000	\$145.72	\$1,457
Gen. merchandise stores	45,280	100.52	4,552
Food stores	10,500	128.82	1,353
Packaged liquor	3,500	206.26	722
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Furniture, furnishings	15,000	127.59	1,914
Auto dealers & supplies	2,200	133.32	293
Other retail stores	23,550	155.33	3,658
All other outlets	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	--
<b>Total</b>	<u>127,365</u>		<u>\$15,902</u>

Source: CIC Research, Inc., 1988  
Urban Land Institute, "Dollars and Cents of Shopping  
Centers, 1987"



## Retail Market Impact

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 3.2.13 presents a comparison of the existing square footages and outlets in and adjacent to the Montgomery Specific Plan area with the supermarket/drug store concept. Overall, this scenario would represent eight percent of both the existing retail square footage and outlets. Assuming all of the known planned retail space was built by mid-1990 (163,983 square feet), the subject development would then account for seven percent of area retail space.

Categories in which the center would represent a higher proportion of retail space would be in drug stores, food stores, and other outlets. A drug store would generate increased competition among other drug stores in the area. However, the addition of fast food restaurants would generate more activity for similar outlets near Palomar and Broadway, at the expense of the market shares held by restaurants along Third Avenue.

In Table 3.2.14, the off-prices center concept is evaluated in the same manner. The difference in representation by grouping is a greater emphasis in apparel, general merchandise, liquor, furniture, and auto supplies categories. This emphasis, however, does not translate directly to potential impacts, since with the exception of general merchandise, the existing representation of these outlets is relatively low.

In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17 percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets.

The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

A third means of evaluating market impact is to estimate prorata sales capture rates for the project at the time it would open. Conclusions of this approach are presented in Table 3.2.15. At the bottom of the table, the total estimated sales from Scenario 1 (supermarket/drug store anchors) would represent

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**Table 3.2.13**

POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA  
SCENARIO 1

	Existing Occupied Retail Space		Scenario 1 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	6,000	1	8%	3%
General merchandise	389,550	9	15,000	1	4	10
Drug stores	43,150	4	9,000	1	17	20
Food stores	204,147	34	48,780	3	19	8
Packaged liquor Eating and drinking places	14,440	6	--	--	0	0
Furniture, furnishings and appliances	193,560	70	10,520	4	5	5
Building materials and farm implements	141,169	21	--	--	0	0
Auto supplies/dealers	157,570	6	--	--	0	0
Service stations	14,384	8	--	--	0	0
Other retail stores	7,600	4	--	--	0	0
	<u>138,103</u>	<u>55</u>	<u>31,250</u>	<u>16</u>	<u>18</u>	<u>22</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

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**Table 3.2.14**

POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
AND IMPACT ON MARKET AREA  
SCENARIO 2

	Existing Occupied Retail Space		Scenario 2 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	10,000	5	13%	13%
General merchandise	389,550	9	45,280	1	10	10
Drug stores	43,150	4	--	--	0	0
Food stores	204,147	34	10,500	4	5	11
Packaged liquor	14,440	6	3,500	1	20	14
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	15,000	1	10	5
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	2,200	1	13	11
Service stations	7,600	4	--	--	0	0
Other retail stores	<u>138,103</u>	<u>55</u>	<u>23,550</u>	<u>9</u>	<u>15</u>	<u>14</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988



# Table 3.2.15

## MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE (1988 dollars, values in thousands)

	Estimated 1990 Retail Sales				Palomar Trolley Center		Palomar Trolley Center Capture of Market Area Sales					
	Trade Area Around Site		5.0 Miles		Projected Sales		1.5 Miles		3.0 Miles		5.0 Miles	
	1.5 Miles	3.0 Miles	5.0 Miles	#1	#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	
Apparel	\$8,673	\$52,339	\$82,316	\$874	\$1,457	10%	17%	2%	3%	1%	2%	
General merchandise	29,743	159,253	250,119	1,508	4,552	5	15	1	3	1	2	
Drug stores	7,081	37,235	58,467	1,612	--	23	--	4	--	3	--	
Food stores	42,918	238,076	374,078	17,267	2,075	40	3	7	1	5	--	
Eating and drinking places	19,060	105,446	165,677	1,743	1,743	9	9	2	2	1	1	
Furniture, furnishings and appliances	8,657	56,496	88,927	--	1,914	--	22	--	3	--	2	
Building materials and farm implements	8,704	50,463	79,330	--	--	--	--	--	--	--	--	
Auto dealers and supplies	31,991	186,409	293,061	--	293	--	1	--	--	--	--	
Service stations	17,094	97,160	152,706	--	--	--	--	--	--	--	--	
Other retail stores	16,352	115,470	181,893	4,784	3,658	29	22	4	3	3	2	
Subtotal	\$190,273	\$1,098,347	\$1,726,574	\$27,788	\$14,970	15%	8%	3%	1%	2%	1%	
All other outlets	--	--	--	210	210	N/A	N/A	N/A	N/A	N/A	N/A	
Total	\$190,273	\$1,098,347	\$1,726,574	\$27,998	\$15,902	15%	8%	3%	1%	2%	1%	

Source: CIC Research, Inc., 1988  
Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
National Decision Systems



15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area.

By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The three mile area would extend eastward to I-805. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.

Given the three-mile market size, the food store would capture the largest share of retail expenditures, at a seven percent rate. The drug store in Scenario 1 would represent the next largest addition to the market requiring four percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market.

The second scenario, requiring eight percent of expenditures from the 1.5 mile region and one percent of the cumulative expenditures up to three miles from the site would not be expected to significantly affect any particular category of retail business.

#### Growth and Retail Demand

Although the relative proportions of the market that the study site represents appear small, as either eight percent of total square footage or one to three percent of potential sales, whatever sales capture occurs, most will be obtained through competing with existing and planned outlets. Very little of the site's revenues can be expected from growth of population or households.

Growth in the number of households within 1.5 and 3.0 miles of the site is expected to occur at 0.2 and 1.7 percent annual rates. Based on the estimated 1,495,907 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 5,966 to 51,089 additional square feet would be required at these projected rates of growth.

Planned retail centers (not including the subject) would represent an additional 163,983 square feet of a 5.1 percent increase in space over the next two years. Adding the subject project, a total of 291,348 square feet would be added, or a 9.0 percent annual increase in two years, above the amount of existing occupied space.

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. It is assumed that land and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these newer centers to have high occupant rates and average to high lease rates for the area in order to break even. Furthermore, development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers.

Centers that could be affected by both planned development and the proposed project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 Block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located in a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.

Naples Center entails a total of 20,452 square feet and is located in the middle of the 1300 block of Broadway; two units containing 10,048 square feet are vacant (49% vacancy). Tenants include a U.S. Armed Services recruiting office, print shop, arcade, and a cabinet shop. At 1010 Broadway, a 12,272 square foot center has a variety of users including an office for motor vehicle registration, a liquor store, a laundry, a video rental outlet, and a financial services firm. Two units are vacant (3,460 square feet, or 28%). A fourth center just north of the Montgomery Specific Plan area in the 900 block of Broadway could also be affected. This center has a check cashing/lottery business and a nondescript financial services operation as main tenants. Another outlet, Los Gallos, will be renting the end unit along Moss Street. Built in 1987, this center has approximately 11,400 square feet, 3,400 of which (30%) is vacant.

Whereas retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine these uses for mutual support, the above-mentioned centers were unable to attract a functional combination of tenant types. Leasing activity up to this point has allowed nearly any business that will sign a lease. Such haphazard combinations can discourage subsequent tenants from locating in the center. Other better located and planned centers will continue to out-compete these centers for tenants.

The proposed project is a much better located center and has indicated specific leasing plans. Even if lease rates are higher at the Palomar Trolley Center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway.

The result of this competition for tenants in a market where retail space is being added faster than housing units may bring continued vacancies in the smaller centers. Lower lease rates or more concessions and possible failures could result, given the individual margins under which each must operate. However, it is unlikely that such failures would occur. The reason is that the low-end users noted above predominate in the Broadway area and centers catering to such tenants should expect both slow lease-up activity, above average tenant turnover, and allowances for uncollected rent.

With regards to development of the Palomar Trolley Center, growth of the retail district at Palomar and Broadway is dependent upon expansion of the market area that the district serves. This expansion could be growth in the number of households, greater depth in the existing area through capture of larger market shares, or more penetration into more distant neighborhoods and communities. The proposed center is well located to accomplish such expansion in any of these approaches by correctly choosing appropriate anchors and auxiliary shops. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

#### Palomar Trolley Center Impacts

The foregoing analysis indicates that it is not possible to conclude that vacancies will persist in existing retail facilities, or that leasing of the Palomar Trolley Center would cause extended periods of vacancy for other planned retail developments. Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies can not be ascribed to the eventual marketing of the Palomar Trolley Center, since it is not large enough to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to their construction. The mistakes or choices made by these other developers will not be directly affected by the Palomar Trolley Center project, or be impacted from cumulative effects of the project.

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects can be anticipated to buildings or shopping centers.

### Competitive Environment

Development of the proposed project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the subject development is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

### 3.2.3 MITIGATION

Because no significant adverse socioeconomic impacts have been identified, there are no mitigation measures to be associated with the Palomar Trolley Center project.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present...", but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged [A-7 p.8]. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infill sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.



### 3.2.4 ANALYSIS OF SIGNIFICANCE

#### Benefits From Project

Benefits to the community from development of the Palomar Trolley Center are increased retail sales tax receipts for the City and a convenient, useful shopping facility for consumers. These attributes are described below to allow comparison to other implications of the project.

Fiscal Impact: The fiscal impact of the development would result from the change in land use zoning from Limited Industrial (M-52) to Neighborhood Commercial (C-N). In general, industrial development is expected to generate revenues at 74 percent of annual municipal operating costs, on a per-acre basis. Retail development can generally be expected to return 130 percent of operating expenses on a per-acre basis. Given approximate operating expenditures for public safety, etc., of \$10,000 per acre per year for retail development and \$4,300 for industrial, the net benefit from retail development would be approximately \$4,200 per acre or \$51,366 annually from retail development of the site.

A second level of fiscal impact is determined by estimating the proportion of revenues that would be provided by sources outside the City, i.e. capture of retail sales tax revenues from nonresidents. This calculation is made in Table 3.2.16. Expenditures at the study site are estimated for the 2,715 households within 1.5 miles of the site, but lying outside the City boundaries. First a determination of the degree at which each retail category would be represented at the site (i.e. because a small proportion of apparel shopping is conducted at neighborhood centers compared to community, regional, and specialty centers, apparel sales were given 25 percent categorical representation at the site). A second order of reduction in sales capture was determined by proportionate square footage in competitive outlets in the area.

Retail sales tax represents approximately 77 percent of annual revenues accruing to the City from retail development. The \$22,707 in sales tax revenue generated from nonresidents within 1.5 miles of the site would account for eight percent of total sales tax receipts, based on the supermarket/drug store concept. This estimate of outside capture is considered to be conservative since only households within a short driving distance from the site were included.

Convenience: A successful development of the Palomar Trolley Center would provide the community with additional convenient, and shopping opportunities.



**Table 3.2.16**

**STUDY SITE POTENTIAL SALES TAX REVENUES  
(generated from outside of Chula Vista)  
(1.5 mile radius)**

<u>Retail Category</u>	<u>Site Tenant Mix Market Representation</u>	<u>1990 Households Projection</u>	<u>Potential Sales Per Household*</u>	<u>Site Capture Rate</u>	<u>Potential Site Capture</u>	<u>City Share of Sales Tax Receipts</u>
Food store	100%	2,715	\$961	25%	\$652,279	\$6,523
Eating & drinking places	100	2,715	1,334	18	651,926	6,519
Drug stores	100	2,715	496	50	673,320	6,733
General merchandise	25	2,715	2,082	3	42,395	424
Apparel	25	2,715	607	30	123,600	1,236
Furniture & furnishings	25	2,715	606	4	16,453	165
Hardware, lumber and garden	25	2,715	609	8	33,069	331
Other retail	25	2,715	<u>1,144</u>	10	<u>77,649</u>	<u>776</u>
			\$7,839		\$2,270,691	\$22,707

\*Taxable 1988 dollars.

Source: CIC Research, Inc., 1988  
National Decision Systems



### Considerations Regarding Competition

The proposed retail center would continue the trend of increasing competitiveness among smaller centers along Broadway. As noted previously the potential for business losses or failures is rooted in location and design problems associated with these centers/outlet. While the Palomar Trolley Center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences. It is in the best interest of consumers to allow this process to continue with as little direct interference as possible. Actions such as aligning planning policies to support existing and desirable retail facilities represent the best means to accommodate changes in retail trends as they occur.

### 3.3 MAINTENANCE OF ADOPTED GROWTH MANAGEMENT THRESHOLD STANDARDS

The City's Threshold Standards were adopted on November 17, 1987, as a mechanism to preserve and enhance the public services and quality environment now enjoyed by Chula Vista. Each of the issues addressed in the policy includes a goal describing the desired condition and objectives that define measurable steps toward achieving the goal. The threshold standards are levels of service or maintenance standards. Implementation measures are included which are to be used to insure maintenance of the standards [A-6]. The maintenance of the traffic threshold standards were previously addressed in the Traffic Analysis. This section describes the existing conditions of the City's Fire/Emergency Medical, Police, Parks and Recreation, Drainage, Sewer, and Water services and facilities with respect to their threshold standards, and the relationship between the development of the proposed project and the maintenance of these standards.

#### 3.3.1 PROJECT SETTING

##### Fire and Emergency Medical Service

Fire protection and first response emergency medical service for the project area is provided by Chula Vista Fire Department Station No. 5, located approximately one mile from the site on the southeast corner of Fourth Avenue and Oxford Street. Station No. 5, equipped with 1 Telesquirt pumper engine, is staffed 24 hours a day, seven days a week with 3-4 firefighters per shift.

The Threshold Standard requires response times within seven minutes for 85 percent of cases. Current level of service is 92 percent. Estimated response time to the project site is 3-7 minutes total [A-8][B-1].

##### Police Services

The Chula Vista Police Department operates out of it's headquarters located at 276 Fourth Avenue. The department presently has 215 employees of which 147 are sworn officers and 68 are civilian personnel. The sworn officers include 32 supervisors, 34 detectives, 73 field officers, and 8 traffic officers. There are three shifts per day with approximately 13-16 officers per shift able to respond to calls. When shifts change, they overlap for one to three hours, thus doubling the number of officers on duty for that time period. The department has a pool of 38 marked cars, 34 unmarked cars, and 5 motorcycles. Ninety-five percent of calls are responded to from the field.

The City's threshold standard for police service is an emergency response time within 5 minutes in 75 percent of cases, and within seven minutes in 90 percent of cases. The level of

service for-the-past-six-months from June 1988 through November 1988 has averaged 69.3 percent for response times within 5 minutes, and 87.3 percent for response times within 7 minutes. Hence, the current level of service is below threshold the standard. Estimated emergency response time to the project site is 4 minutes [B-2].

### Parks and Recreation

The threshold standard establishes a ratio of three acres of parkland per 1,000 residents east of I-805. This standard is not directly applicable to the area surrounding the proposed shopping center; however, the City's Parks and Recreation Element of the General Plan establishes a local park (neighborhood and community parks) standard ratio of 4 acres of local park land for every 1,000 persons served [A-9]. Based on this standard, and the Montgomery population of 25,000, the local park requirement for the Montgomery Specific Plan Area is 100 acres. According to the Montgomery Specific Plan, the only existing public park in Montgomery is the 3.9-acre Lauderbach Community Center, thus indicating that there is a profound shortage of local parks for the community [A-1]. The Montgomery Specific Plan addresses this condition in recommendations to correct the deficiency. Included is the proposal to reserve and improve the SDG&E right-of-way for public parks and/or open space, which could provide a recreational linkage between the parksite suggested for the Orange Avenue/Hermosa Avenue area and the MTDB Palomar Trolley Station.

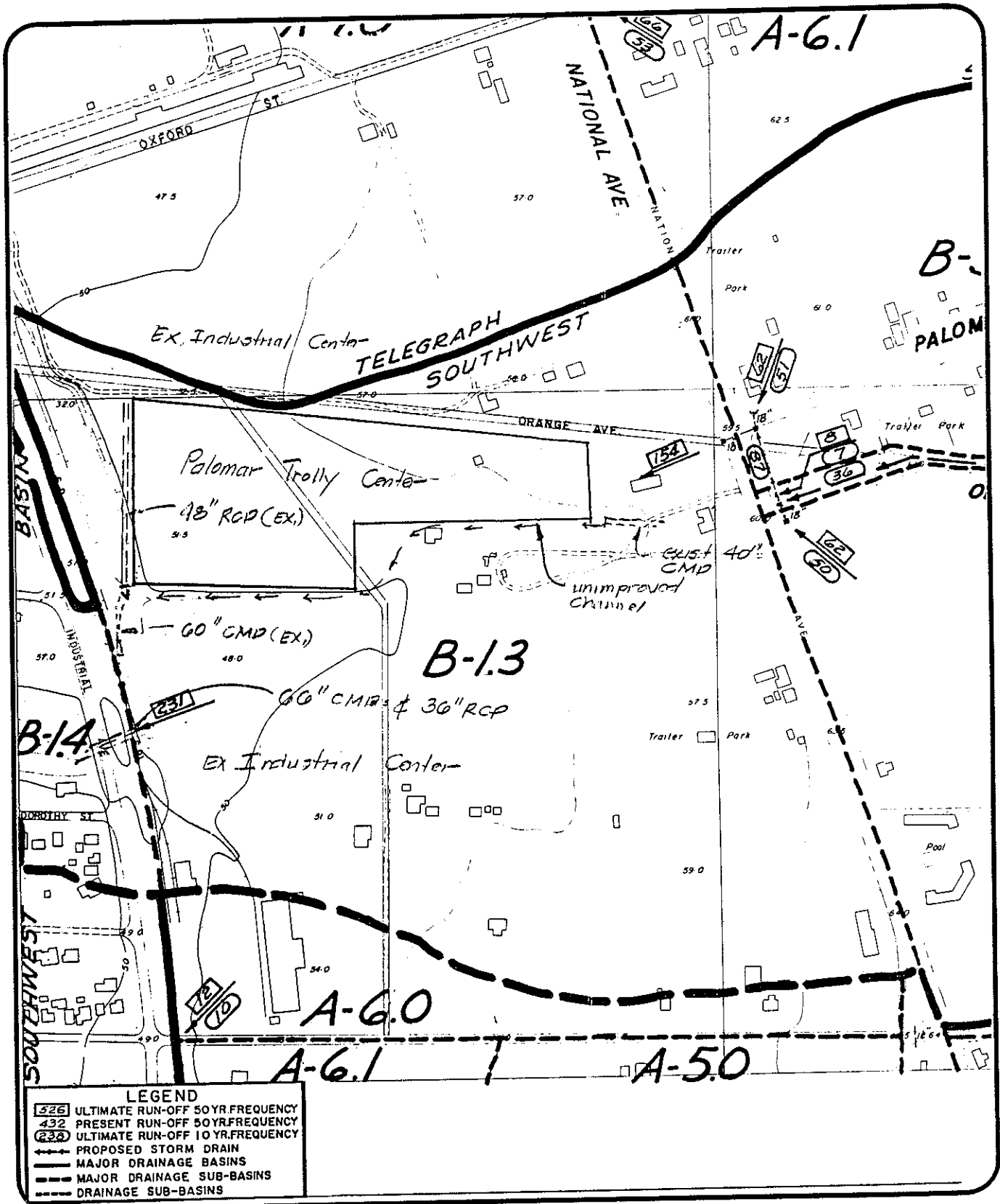
### Drainage

The proposed site is located in sub-basin B-1.3 of the Southwest drainage basin. The property is relatively flat, sloping to the southwest at a grade of less than 2 percent. The site drainage currently flows southwesterly to an existing unimproved drainage swale along the southern border of the property. Existing on-site drainage facilities consist of a 48-inch RCP storm drain along the western boundary of the site which flows south. The drainage swale and 48-inch RCP join at the southwest corner of the site and drain into an existing off-site 60-inch CMP storm drain (see Figure 3.3.1, also see Section 2.2, Figure 2.2.1 Site Plan).

The 60-inch CMP flows into a large sump approximately 500 feet to the south of the project site. This sump is the drainage concentration point for sub-basin "B" of the Southwest Drainage Basin (see Figure 3.3.1). The ultimate runoff per 50 year frequency ( $Q_{50}$ ) at this point is 231 cubic feet per second (cfs). The sump is drained by two pipes, a 66-inch CMP at 0.55 percent grade and a 36-inch RCP at 1.71 percent grade. Preliminary calculations indicate that these pipes are inadequate for  $Q_{50}$  flows at this point; although low flows ( $Q_{10}$ ) can pass,  $Q_{50}$  flows will pond for a given period before passing [A-10].







SOURCE: Lawrence, Fogg, Florer, & Smith

Figure 3.3.1

Drainage Map

A. D. HINSHAW ASSOCIATES



The City's threshold standard for drainage states that, "Storm water flows and volumes shall not exceed City Engineering Standards" [A-6]. City Engineering Standards requires special design for sump conditions to protect property.

The goal of the drainage threshold standards is to provide a safe and efficient storm water drainage system to protect residents and property in the City of Chula Vista. The objective of the drainage threshold standards is that individual projects will provide necessary improvements consistent with the City Drainage Master Plan(s) and City Engineering Standards.

The Montgomery Specific Plan does not indicate any specific drainage problems within the vicinity of the site but does address Montgomery-at-large in stating that "some areas of Montgomery are periodically flooded" [A-1, pt.1, pg.19].

### Sewer

Montgomery is within the City of Chula Vista Sanitation Service area. Sewage from this area is discharged into the METRO System for treatment at the Point Loma Regional Plant. The system collection facilities for Montgomery are considered adequate; no new major improvements should be required within the next 10-15 years [A-1, pt.1, pg.21].

There are no existing sewer facilities on-site. The project proposes to connect to an existing 8-inch sewer line approximately 300 feet south of the project property. This line flows westerly under the MTDB trolley track and connects with the 15 inch sewer line flowing south along Industrial Boulevard.

### Water

The City's threshold standard for water requires that a service availability letter be obtained from the Water District for each project. The Montgomery community is served by the South Bay Irrigation District. The water system is owned by the district and leased to the Sweetwater authority for operations and maintenance. According to the water service availability letter issued by the Sweetwater Authority for the Palomar Trolley Center, the proposed project is within the Sweetwater Authority service area and is eligible for service [A-11]. The Montgomery Specific Plan indicates that the district has sufficient capacity to meet twice the estimated water demand of all of Chula Vista within the Sweetwater Authority service area and Montgomery. The Specific Plan also indicates that "although the present pipeline system which serves the Montgomery Community is adequate, the Sweetwater Authority proposes substantial improvements with the replacement of some 12-inch pipes at various locations within the next two years." [A-1 pt.1, p.21]. The existing on-site water facilities consist of a 10-inch main

extending through the property within the 60-foot wide public right-of-way bisecting the property. The existing off-site facilities adjacent to the property consist of a 10-inch main in Palomar Street.

### 3.3.2 IMPACTS

#### Fire and Emergency Medical Service

The Chula Vista Fire Department will be able to provide an adequate level of fire protection/EMS for the proposed project without an increase in equipment or personnel [A-8][B-1]. The estimated response time is within the required threshold standard of 7 minutes. The development of the proposed project is not anticipated to affect the City's threshold standard for fire and emergency medical services.

#### Police Services

As previously noted, the Police Department's average level of service ~~for--the--past--six--months--has--been~~ from June 1988 through November 1988 was below the threshold standard. The estimated emergency response time of 4 minutes to the project site is within the City's threshold standard. However, additional calls which may occur as a result of the development of the project, and other recently approved projects, will incrementally add to the overall caseload. Any increase in caseload would have a cumulative effect on the police response time and, hence, may significantly impact the City's threshold standard for police service [B-2].

#### Parks and Recreation

As previously noted, the City's threshold standard applies to the area east of I-805 and is, therefore, not directly applicable to the proposed project area; however, the standard established by the General Plan is applicable. The development of the proposed project will not directly affect the City's standard for parks and recreation facilities because the project would lead to only a minor increase in the City's housing stock (i.e., population).

The Montgomery Specific Plan indicates that there is a serious deficiency of local park land in the Montgomery community. Furthermore, Montgomery is already substantially developed and has little vacant land remaining and, therefore, little opportunity for the development of parks. Because the proposed property is vacant and could conceivably be developed as a park, the development of the project, and the commitment of the property to the proposed land use, will further diminish the opportunity for the development of local parks in Montgomery.

## Drainage

The drainage section of the Initial Study (IS 88-63M), completed by the City Engineering Department, indicates that the off-site facilities adjacent to the project site are adequate to serve the proposed project [A-8]; however, further investigation has raised questions about the adequacy of facilities downstream. As noted in the previous section, the facilities at the large sump to the south of the project site may be inadequate for Q<sub>50</sub> flows.

Preliminary hydrology calculations indicate that the development of the proposed project will result in an increase of surface runoff of 13 cfs for Q<sub>10</sub> flows and 17 cfs for Q<sub>50</sub> flows at the sump [A-10]. Depending on the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows, the development of the proposed project may have an effect upon the City's threshold standards for drainage.

## Sewer

According to the Initial Study, as completed by the City Engineering Department, it is anticipated that the project will generate sewage flows of approximately 21,540 gallons per day (gpd). The proposed project will be served via off-site improvements within the 66-foot wide road easement which will terminate in a connection with the existing 8-inch sewer line, 300 feet south of the project, as it crosses the road easement. According to the City Engineering Department, the connection with the existing sewer facilities will adequately serve the proposed project within standards. The development of the proposed project is not expected to affect the City's threshold standards for sewage.

## Water

The water demand standards established by the Water District for commercial shopping centers are 2.5 acre feet per acre, per year [B-3]. The requirement for the 12.23-acre project is 30.57 acre feet of water per year. According to the Initial Study, as completed by the City Fire Department, the project will require a fire flow of 5,000 gallons per minute (gpm) [A-8]. According to the water service availability letter, the extent of water facility construction and relocation will be determined after the Authority reviews the proposed plans and a hydraulic analysis has been completed [A-11]. The development of the proposed project is not expected to affect the City's threshold standards for water.

### 3.3.3 MITIGATION

#### Fire and Emergency Medical Service

Because the development of the proposed project is not anticipated to affect the City's threshold standard for fire and emergency medical services, no mitigation measures are recommended.

#### Police Services

The development of the proposed project is anticipated to have an cumulative adverse effect on the City's threshold standard for police services; therefore, it is recommended that the Growth Management Oversight Committee (GMOC) review the current level of service of the Police Department and, if warranted, that the City follow the implementation measure as set forth in the threshold standards policy [A-6]. The implementation measure directs the City Council to hold a public hearing for the purpose of adopting a moratorium on the acceptance of new tentative maps applications during which time the City shall prepare specific mitigation measures for adoption which are intended to bring the condition into conformance.

#### Parks and Recreation

No significant impacts to City standards for parks and recreation facilities are anticipated to result from the development of the proposed project. No mitigation is recommended.

#### Drainage

It should be noted that all the assumptions used in the preliminary hydrology calculations are based upon the most current existing records on file with the City, which includes a drainage study prepared more than 20 years ago. These records were found to be incomplete and, at best, outdated. Also, further investigation into the design of the sump, and whether or not surrounding properties are protected from the ponding Q<sub>50</sub> flows is required. Therefore, it is recommended that a more thorough hydrology study be conducted in order to better determine the downstream effects of the proposed project and, accordingly, it's effect upon the City's threshold standards for drainage. This study should include an analysis of all the elements of the existing drainage system (48-inch RCP, 60-inch CMP, unimproved channel, sump, and storm drains located beneath the trolley tracks). The study shall determine the adequacy of these structures to handle the drainage flow with and without project conditions and shall identify the necessary mitigation measures to be implemented to meet the City standards. The significance of impacts can be determined at that time.

### Sewer

Because the development of the proposed project is not expected to affect the City's threshold standards for sewage, no mitigation measures are recommended.

### Water

No significant impacts to the City's water services threshold standards are anticipated to result from the development of the proposed project. No mitigation is recommended.

### 3.3.4 ANALYSIS OF SIGNIFICANCE

#### Fire and Emergency Medical Service

There will be no significant impacts to the maintenance of Fire and Emergency Medical Service Threshold Standards as a result of implementing the proposed development.

#### Police Services

There will be significant cumulative impacts to the maintenance of Police Service Threshold Standards as a result of implementing of the proposed development and other projects which have been recently approved. These cumulative impacts can be mitigated by the measures described in the previous section. The degree to which they are mitigated will be determined by the measures implemented by the City.

#### Parks and Recreation

No significant impacts to City standards for parks and recreation facilities are anticipated to result from the development of the proposed project.

#### Drainage

Potential impacts to the maintenance of Drainage Threshold Standards as a result of the proposed development cannot be fully determined until further study is completed. Mitigation and the significance of impacts can be determined at that time.

With regard to the current condition of existing drainage records on file with the City, it is suggested that the City conduct a complete hydrology/drainage survey of the area in order to revise the Drainage Master Plan(s).

Sewer

There will be no significant impacts to the maintenance of the City's Sewer Threshold Standards as a result of the proposed development.

Water

No significant impacts to the City's water services threshold standards are anticipated to result from the implementation of the proposed development.



## 4.0 ALTERNATIVES

The discussion of alternatives focuses on those alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if the alternatives would impede to some degree the attainment of the project objectives. By analyzing and weighing alternatives, decision-makers can make judgments concerning the advantages and disadvantages of each alternative in relation to the proposed project.

### 4.1 NO PROJECT

This alternative is based on the disapproval of the requested actions and not building the Palomar Trolley Center. The project site would remain in its present condition if this alternative were to be adopted. No significant environmental impacts are expected to occur as a result of this alternative.

### 4.2 EXISTING ZONING

This alternative would develop the site in accord with the existing land use and zoning designations. The existing Specific Plan land use designation for the site is Research and Limited Industrial [A-1]. The project site is currently zoned M52 Limited Impact Industrial Use [A-2]. The development is assumed to be a light industrial project with a total gross floor area of 137,500 sq.ft.

#### Transportation/Access

If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT with 132 trips occurring during the P.M. peak hour, therefore generating 5,148 less ADT and 494 less trips during the P.M. peak hour than the proposed project. Under this alternative, the traffic impacts associated with the development of the site would be significantly less.

#### Community Social Factors

The current zoning, Limited Impact Industrial Use (M52), is intended for manufacturing and industrial uses which evidence no or very low nuisance characteristics. The M52 zone permits a range of commercial uses; some of which are also permitted under the proposed C-N zoning. These uses are, however, dissimilar in that they are intended to support, or be secondary to the industrial uses. The project site would not be in direct competition with nearby commercial centers if developed under this alternative. Therefore, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

## Maintenance of Adopted Growth Management Threshold Standards

The site is located in a substantially developed area where public services and facilities are already provided; thus, no extensions of public facilities to the project site are required, and no additions to public services personnel and equipment are expected to be necessary. Additionally, due to the physical characteristics of urban development, a project developed according to the permitted land uses under the current zoning would likely have effects upon the maintenance of adopted growth management threshold standards similar to those of the proposed project. For example, whether the site is developed as an industrial park or a shopping center, it will be a point of destination and will have buildings, pavement, landscaping, etc. It will, therefore, generate traffic, require fire protection and emergency medical service, police protection, water and sewer services, will increase and alter surface drainage, and decrease land opportunities for parks and recreation facilities. Hence, the effects of developing the proposed site under this alternative would be comparable with those of the proposed project.

### 4.3 REDUCED PROJECT

This alternative assumes a "reduced scale of development" of the proposed project; thus, it assumes the approval of the proposed SPA and zone change, but the gross floor area of the development will be reduced. This alternative assumes the exclusion of the four "restaurant" pads, and the "bank" pad. These deletions reduce the gross floor area by approximately 15,335 sq.ft. for a total project size of approximately 112,030 sq.ft. gross floor area.

### Transportation/Access

Under this alternative the estimated daily traffic generation would add 5,489 ADT with 550 trips occurring during the P.M. peak hour, therefore generating 759 fewer ADT (12%) and 67 fewer trips (12%) during the P.M. peak hour than the proposed project. Additionally, issues such as stacking and site specific internal circulation impacts would be substantially reduced with the elimination of the restaurant pads. Compared to the proposed project, the traffic impacts associated with this alternative development of the site would be 12 percent less.

### Community Social Factors

Development of the site under this alternative would decrease the potential for socio-economic impacts which could result in the physical deterioration of nearby commercial centers because less business (less competition) would be located

at the center. The potential for impacts from increased competition, especially fast food restaurants, would be substantially reduced; thus, the potential for socio-economic impacts which could result in the physical deterioration of the nearby commercial centers would be less than that of the proposed project. Therefore, no such impacts would occur as a result of this alternative.

#### Maintenance of Adopted Growth Management Threshold Standards

Just as in the previous alternative, the analysis of the impacts to the maintenance of adopted growth management threshold standards must take into consideration that the site is located in a substantially developed area where public services and facilities are already provided. Therefore, no extensions of public facilities to the project site would be required, and no additions to public services personnel and equipment would be necessary. Additionally, due to the physical characteristics of urban development, a project developed according to this alternative would likely have effects upon the maintenance of adopted growth management threshold standards similar to those of the proposed project. For example, whether the site is developed as an industrial park or a shopping center, it will be a point of destination and will have buildings, pavement, landscaping, etc. It will, therefore, generate traffic, require fire protection and emergency medical service, police protection, water and sewer services, will increase and alter surface drainage, and decrease land opportunities for parks and recreation facilities. Hence, the effects of developing the proposed site under this alternative would be comparable with those of the proposed project.

#### 4.4 JAYKEN WAY ACCESS

This alternative assumes that access is provided to the project site from the south via Jayken Way. Currently Jayken Way ends on the south side of the San Diego Gas and Electric easement located adjacent to the southern boundary of the project site. Thus, the extension of Jayken Way would cross the SDG&E easement to gain access to the project site. A redesign of the building locations and internal circulation (see Site Plan, Figure 2.2.1) would be required to provide for this connection to the south.

#### Transportation/Access

As explained on page 17 of this EIR, if the project takes access from Jayken Way, traffic on Anita Street would increase by 200 ADT west of Jayken Way and 500 ADT east of Jayken Way. Corresponding decreases of 200 ADT would occur on Industrial Ave, and 500 ADT on Broadway. Similarly, traffic on Palomar Street

would decrease by 200 ADT west of the project entrance and 500 ADT east of the entrance. These differences are presented in Figures 3.1.4 and 3.1.5.

The only intersection Level of Service that would be affected is the Broadway/Palomar Street intersection. As stated on page 26, the LOS at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. If access is also provided to Anita Street via Jayken Way, the Broadway/Palomar Street intersection would operate at LOS B.

#### Community Social Factors

This alternative would have no effect on Community Social Factors.

#### Maintenance of Adopted Growth Management Threshold Standards

This alternative would have no effect on the adopted Threshold Standards.

## 5.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

The increase in traffic associated with the proposed project and other approved projects in the area will significantly impact the level of service (LOS) on Palomar Street between I-5 and Broadway. This segment would operate at LOS E under the four-lane major road classification of the current City Circulation Element. If the new Circulation Element (currently under review) classification of a Class I Collector is applied the segment would operate at LOS F. This impact can be mitigated by improving Palomar Street to the ultimate six-lane Major Street classification of the new Circulation Element.

Broadway, north of Palomar Street, is projected to operate at LOS E under existing plus project plus approved project conditions. As noted in the traffic study, it is not feasible to improve Broadway to a six-lane Major Street. The recommended improvements to the intersection of Palomar Street/Broadway may alleviate some of the congestion on this roadway. If the City of Chula Vista determines that LOS E is unsatisfactory on Broadway, with no improvements scheduled for this street, alternative solutions to improve capacity should be investigated.

The intersection of Palomar Street/Broadway is projected to fall to LOS D under the existing plus project scenario. This LOS can be improved to C if eastbound Palomar is improved to accommodate a dual left turn lane. The Palomar Street/Industrial Boulevard intersection currently operates at LOS F during the P.M. peak hour. If the recommended mitigation measures are implemented, the LOS will improve to C.

The Police Department's average level of service has been below the City's adopted threshold standard during the past six months. Additional calls that may occur as a result of the development of the Palomar Trolley Center, and other recently approved projects, will incrementally add to the overall caseload. Any increase in caseload would have a cumulative effect on the police response time and may significantly impact the City's threshold standard.

## 6.0 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Changing the General Plan designation of the site from Research and Limited Industrial to Mercantile and Office Commercial, and rezoning from Limited Impact Industrial to Neighborhood Commercial, will have a long-term effect on the potential uses of the site. The type of land uses permitted would change from industrial activities to commercial activities. This change would not be an adverse impact, however, since there is a supply of industrially zoned land in the area that could be developed or redeveloped.

Development of the proposed project does raise questions concerning the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the Palomar Trolley Center is not seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

Development as either a commercial or industrial use would preclude any future use of the site for its former agricultural activities. However, the Huerhuero loam soil (HrC) on the site is rated as a Class III soil having severe limitations that reduces the choice of plants that can be successfully grown there. The main limitations are erosion and slow to very slow permeability of the subsoil. The HrC soil is rated as good for tomatoes and fair for truck crops and flowers. The Storie Index of 41 indicates that the few crops that can be grown on the site require special management.

In the short-term, construction of the Palomar Trolley Center will disrupt the noise and visual environment in the vicinity of the construction activity. Street improvements related to the project will also cause traffic disruptions on the surrounding street network. These disruptions will be temporary in nature, and will have no lasting effects on the environment.

Increased drainage resulting from the paving of the site may impact the sump area located southwest of the project site until

needed improvements are made. A thorough hydrology study will be required to determine the improvements needed to accommodate existing, plus increased, storm water flows.

Developing the property as proposed will generate an additional 5,148 trips per day compared to the traffic that would be generated by an industrial development. These additional trips would be a permanent addition to the traffic flow on local streets. Further, these trips would have a cumulative effect on Average Daily Traffic and Levels of Service as shown in Table 3.1.3.

The project proponent believes that the proposed development is appropriate at this time because there is an existing unmet demand for retail commercial services in the area. In its urban context the site is now underutilized. Given the adjacent trolley stop, which is already in operation, the site is well located to serve the commercial needs of trolley passengers. This proximity is a unique situation for transit riders who can combine the work-to-home trip with a shopping trip.

## 7.0 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT

Development of the site as a commercial facility will irreversibly commit the site to this specific type of use and preclude future agricultural uses of the property. While agricultural land is a non-renewable resource, the continued agricultural use of this site is highly unlikely given its location within an urbanized area.

Other irreversible environmental changes that will result from the development of the site involve the increased energy and water demands that will be involved in the construction and operation of the proposed facilities. The increased traffic associated with the project will be irreversible, as will the additional air pollutants and noise generated by the increased traffic. These increases are not considered significant, however.



## 8.0 GROWTH INDUCING IMPACT OF THE PROPOSED ACTION

Development of the Palomar Trolley Center will have a minor growth inducing impact on the City of Chula Vista and the South Bay area. This impact will result from the creation of new jobs that may result in attracting employees from out of the area to relocate in Chula Vista or other South Bay areas. The number of jobs that will be created will not lead to a significant growth inducing impact.

The project is considered to be an "in-fill" development since it is located within an urbanized area. No extension of public services will be required that would lead to the growth of population or housing.

## 9.0 REFERENCES

### 9.A Reference Documents

1. City of Chula Vista, Montgomery Specific Plan, 9/13/88
2. County of San Diego, Zoning Ordinance, 10/18/78, as amended
3. City of Chula Vista, Zoning Ordinance,
4. Willdan Associates, Traffic Analysis For Palomar Trolley Center, 10/14/88
5. JHK & Associates, Review of Traffic Analysis, 1/5/89
6. City of Chula Vista, Growth Management Threshold Standards, 11/17/87
7. City of Chula Vista, General Plan Digest
8. City of Chula Vista, Initial Study For Palomar Trolley Center (IS-88-63M),
9. City of Chula Vista, General Plan, Parks and Recreation Element, 2/74
10. Johnson, Vaughn, Preliminary Drainage Study For Palomar Trolley Station,
11. Sweetwater Authority, Water Service Availability Letter, 1/10/89
12. CIC Research, Inc., Economic Analysis For Palomar Trolley Center, 1/89

### 9.B Persons and Organizations Contacted

1. Mr. Jim Dyer, Captain, City of Chula Vista Fire Department, (619)691-5055
2. Mr. Keith Hawkins, Captain, City of Chula Vista Police Department, (619)691-5184
3. Mr. Jim Smyth, Senior Civil Engineer, Sweetwater Authority, (619)420-1413
4. Mr. Roger Daoust, Senior Civil Engineer, City of Chula Vista Engineering Department, (619)691-5021
5. Mr. Meharan Sepehri, Associate Traffic Engineer, City of Chula Vista, (619)691-5026

## 10.0 CONSULTANT IDENTIFICATION

This Environmental Impact Report (EIR) was prepared by A.D. Hinshaw Associates of San Diego, California, in conformance with the California Environmental Quality Act (CEQA), as amended (California Public Resources Code Section 21000 et seq.); the CEQA Guidelines, as amended (California Administrative Code Section 15000 et seq.); and the City of Chula Vista EIR Guidelines.

To the best of our knowledge and belief, the information contained in this EIR is accurate and current, and represents our professional opinion regarding the potentially significant environmental effects of the proposed project. Members of A.D. Hinshaw Associates staff and other consultants who contributed to this document are listed below:

Philip L. Hinshaw, Project Manager; M.A. Geography

Mark V. Tegio, Environmental Analyst/Planner; B.A. Public Administration

Sherry A. Price, Graphics/Planner; B.A. Environmental Design

Dan Marum, JHK and Associates,

Scott Pidd, CIC Research, Inc.,

Vaughn Johnson, Development Consultant,

I hereby affirm that to the best of our knowledge and belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated in this EIR.

 FOR:

Philip L. Hinshaw  
President, A.D. Hinshaw Associates



APPENDICES FOR  
DRAFT FOCUSED  
ENVIRONMENTAL IMPACT REPORT  
FOR THE  
PALOMAR TROLLEY CENTER

CHULA VISTA

Prepared for:

City of Chula Vista  
276 4th Avenue  
Chula Vista, CA 92010

Prepared by:

A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, CA 92120

March 22, 1989

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**APPENDIX A**  
**Initial Study**  
**Notice of Preparation and Responses**





INITIAL STUDY

City of Chula Vista  
Application Form

Case No.	<u>15-88-6317</u>
Fee	<u>Deposit \$400.00</u>
Receipt No.	<u>60657</u>
Date Rec'd	<u>3-3-83</u>
Accepted by	<u></u>
Project No.	<u>FA 330</u> <u>DP 477</u>

A. BACKGROUND

1. PROJECT TITLE Palomar Trolley Center
2. PROJECT LOCATION (Street address or description) Lot 1 and Portion of Lot 2 of Walmers Subdivision per Map 729, and Portions of Lot 2 and 3 of Walmers Subdivision, according to plan No. 709 in County of S.D. State of CA. Assessors Book, Page & Parcel No. 622-030-16, 622-030-25, 27
3. BRIEF PROJECT DESCRIPTION 127,500 S.F. Commercial Shopping Center
4. Name of Applicant Pacific Scene  
Address 2505 Congress Street Phone 299-5100  
City San Diego State CA Zip 92110
5. Name of Preparer/Agent Project Design Consultants  
Address 1010 Second Avenue, Suite 500 Phone 235-6471  
City San Diego State CA Zip 92101  
Relation to Applicant Civil Engineer Consultant
6. Indicate all permits or approvals and enclosures or documents required by the Environmental Review Coordinator.

a. Permits or approvals required:

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Specific Plan Revision | <input checked="" type="checkbox"/> Design Review Committee  | <input type="checkbox"/> Public Project       |
| <input checked="" type="checkbox"/> Rezoning/Prezoning     | <input type="checkbox"/> Tentative Subd. Map                 | <input type="checkbox"/> Annexation           |
| <input type="checkbox"/> Precise Plan                      | <input checked="" type="checkbox"/> Grading Permit           | <input type="checkbox"/> Design Review Board  |
| <input type="checkbox"/> Specific Plan                     | <input checked="" type="checkbox"/> Tentative Parcel Map     | <input type="checkbox"/> Redevelopment Agency |
| <input type="checkbox"/> Cond. Use Permit                  | <input checked="" type="checkbox"/> Site Plan & Arch. Review |   |
| <input type="checkbox"/> Variance                          | <input type="checkbox"/> Other                               |   |

b. Enclosures or documents (as required by the Environmental Review Coordinator).

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Location Map                   | <input type="checkbox"/> Arch. Elevations         | <input type="checkbox"/> Eng. Geology Report   |
| <input checked="" type="checkbox"/> Grading Plan                   | <input type="checkbox"/> Landscape Plans          | <input type="checkbox"/> Hydrological Study    |
| <input checked="" type="checkbox"/> Site Plan                      | <input type="checkbox"/> Photos of Site & Setting | <input type="checkbox"/> Biological Study      |
| <input type="checkbox"/> Parcel Map                                | <input type="checkbox"/> Tentative Subd. Map      | <input type="checkbox"/> Archaeological Survey |
| <input type="checkbox"/> Precise Plan                              | <input type="checkbox"/> Improvement Plans        | <input type="checkbox"/> Noise Assessment      |
| <input type="checkbox"/> Specific Plan                             | <input type="checkbox"/> Soils Report             | <input type="checkbox"/> Traffic Impact Report |
| <input type="checkbox"/> Other Agency Permit or Approvals Required |   | <input type="checkbox"/> Other                 |

B. PROPOSED PROJECT

1. Land Area: sq. footage 532,720 ± or acreage 12.2 ±.  
If land area to be dedicated, state acreage and purpose.

NONE

2. Complete this section if project is residential.

a. Type development: Single family \_\_\_\_\_ Two family \_\_\_\_\_  
Multi family \_\_\_\_\_ Townhouse \_\_\_\_\_ Condominium \_\_\_\_\_

b. Number of structures and heights \_\_\_\_\_

c. Number of Units: 1 bedroom \_\_\_\_\_ 2 bedrooms \_\_\_\_\_  
3 bedrooms \_\_\_\_\_ 4 bedrooms \_\_\_\_\_ Total units \_\_\_\_\_

d. Gross density (DU/total acres) \_\_\_\_\_

e. Net density (DU/total acres minus any dedication) \_\_\_\_\_

f. Estimated project population \_\_\_\_\_

g. Estimated sale or rental price range \_\_\_\_\_

h. Square footage of floor area(s) \_\_\_\_\_

i. Percent of lot coverage by buildings or structures \_\_\_\_\_

j. Number of on-site parking spaces to be provided \_\_\_\_\_

k. Percent of site in road and paved surface \_\_\_\_\_

3. Complete this section if project is commercial or industrial.

a. Type(s) of land use commercial

b. Floor area 127,500 s.f. Height of structure(s) 36 ft. maximum

c. Type of construction used in the structure wood frame, concrete blocks and types III and V

d. Describe major access points to the structures and the orientation to adjoining properties and streets 4 Driveways on South side of Palomar Street - Structures face North towards Palomar S

e. Number of on-site parking spaces provided 638

f. Estimated number of employees per shift 123, Number of shifts 1.5 Total 185

g. Estimated number of customers (per day) and basis of estimate 4,280 - Estimate by major tenant and related to SANDAG ADT projection.

N/A

- h. Estimated range of service area and basis of estimate 3-5 mile radius - normal supermarket criteria
- i. Type/extent of operations not in enclosed buildings drive-thru uses at pads - otherwise, none.
- j. Hours of operation 8:00 a.m. to 12:00 Midnight
- k. Type of exterior lighting Sodium

4. If project is other than residential, commercial or industrial complete this section.

- N/A
- a. Type of project \_\_\_\_\_
  - b. Type of facilities provided \_\_\_\_\_
  - c. Square feet of enclosed structures \_\_\_\_\_
  - d. Height of structure(s) - maximum \_\_\_\_\_
  - e. Ultimate occupancy load of project \_\_\_\_\_
  - f. Number of on-site parking spaces to be provided \_\_\_\_\_
  - g. Square feet of road and paved surfaces \_\_\_\_\_

C. PROJECT CHARACTERISTICS

- 1. If the project could result in the direct emission of any air pollutants, (hydrocarbons, sulfur, dust, etc.) identify them.  
Normal traffic generated by service and retail uses  
\_\_\_\_\_
- 2. Is any type of grading or excavation of the property anticipated yes  
(If yes, complete the following:)
  - a. Excluding trenches to be backfilled, how many cubic yards of earth will be excavated? 20,000 cy
  - b. How many cubic yards of fill will be placed? 20,000 cy
  - c. How much area (sq. ft. or acres) will be graded? 12.2 Ac.
  - d. What will be the -
    - Maximum depth of cut 4'
    - Average depth of cut 2'
    - Maximum depth of fill 3'
    - Average depth of fill 1.5'

3. Describe all energy consuming devices which are part of the proposed project and the type of energy used (air conditioning, electrical appliance, heating equipment, etc.) Heating, air conditioning, lighting and power normal to commercial uses refrigeration in supermarket.
  4. Indicate the amount of natural open space that is part of the project (sq. ft. or acres) none
  5. If the project will result in any employment opportunities describe the nature and type of these jobs. Full range of employment afforded by commercial and services enterprises.
  6. Will highly flammable or potentially explosive materials or substances be used or stored within the project site? NO
  7. How many estimated automobile trips, per day, will be generated by the project? 8,925 SANDAG (70/100 s.f.)
  8. Describe (if any) off-site improvements necessary to implement the project, and their points of access or connection to the project site. Improvements include but not limited to the following: new streets; street widening; extension of gas, electric, and sewer lines; cut and fill slopes; and pedestrian and bicycle facilities.  
Widening of Palomar Street to 102' R/W, 82' pavement width, raised median, 300' of offsite sewer extension adjacent to Southerly boundary and continuing in the existing 66' wide road easement
- D. DESCRIPTION OF ENVIRONMENTAL SETTING

1. Geology

Has a geology study been conducted on the property? NO  
(If yes, please attach)

Has a Soils Report on the project site been made? NO  
(If yes, please attach)

2. Hydrology

Are any of the following features present on or adjacent to the site? YES (If yes, please explain in detail.)

a. Is there any surface evidence of a shallow ground water table? NO

b. Are there any watercourses or drainage improvements on or adjacent to the site? exist 48" RCP storm drain along the Westerly boundary

c. Does runoff from the project site drain directly into or toward a domestic water supply, lake, reservoir or bay?

NO

d. Could drainage from the site cause erosion or siltation to adjacent areas?

NO

e. Describe all drainage facilities to be provided and their location. on site storm drain through center of project to connect to exist 48" adjacent to the Westerly boundary

3. Noise

a. Will there be any noise generated from the proposed project site or from points of access which may impact the surrounding or adjacent land uses? NO - major street noise will mask any project generated noise.

4. Biology

a. Is the project site in a natural or partially natural state?

NO

b. Indicate type, size and quantity of trees on the site and which (if any) will be removed by the project. \_\_\_\_\_

5. Past Use of the Land

a. Are there any known historical resources located on or near the project site? NO

b. Have there been any hazardous materials disposed of or stored on or near the project site? None known - site previously used for agriculture.

6. Current Land Use

a. Describe all structures and land uses currently existing on the project site. Vacant Land

- b. Describe all structures and land uses currently existing on adjacent property.

North Existing commercial and mercantile

South Church site, residences on Easterly half, on Westerly half  
SDG & E open space

East Commercial/Residential

West MTDB Trolley Station

7. Social

- a. Are there any residents on site? (If so, how many?) None
- b. Are there any current employment opportunities on site? (If so, how many and what type?) None present - past agriculture

Please provide any other information which could expedite the evaluation of the proposed project.

E. CERTIFICATION

I, A. James Moxham - Vice President  
PACIFIC SCENE, Inc or  
~~owner~~/owner in escrow\*

I, Daniel W. Sullivan - SENIOR PROJECT ENGINEER  
PROJECT DESIGN CONSULTANTS  
Consultant or Agent\*

HEREBY AFFIRM, that to the best of my belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the project and its setting have been included in Parts B, C and D of this application for an Initial Study of possible environmental impact and any enclosures for attachments thereto.

DATE: 3-7-88

\*If acting for a corporation, include capacity and company name.

G. ENGINEERING DEPARTMENT

1. Drainage

- a. Is the project site within a flood plain? NO
- b. Will the project be subject to any existing flooding hazards? NO
- c. Will the project create any flooding hazards? NO
- d. What is the location and description of existing on-site drainage facilities? 48" SD pipe along westerly boundary
- e. Are they adequate to serve the project? YES
- f. What is the location and description of existing off-site drainage facilities? 60" SD pipe flowing west away from SWC of property
- g. Are they adequate to serve the project? YES

2. Transportation

- a. What roads provide primary access to the project? PALOMAR ST.
- b. What is the estimated number of one-way auto trips to be generated by the project (per day)? 8925
- c. What is the ADT and estimated level of service before and after project completion?

	Before	After
A.D.T.	<u>28,180</u>	<u>37,105</u>
L.O.S.	<u>C</u>	<u>E</u>

- d. Are the primary access roads adequate to serve the project? NO  
If not, explain briefly. As a result of the subject development, the level of service on Palomar would be E which is not acceptable
- e. Will it be necessary that additional dedication, widening and/or improvement be made to existing streets? YES  
If so, specify the general nature of the necessary actions. Necessary R/W and widening is required to meet a "major" standard  
Required improvements include AC pavement, curb, gutter & S/W st. lights - - etc.



Case No. \_\_\_\_\_

3. Geology

a. Is the project site subject to:

Known or suspected fault hazards? \_\_\_\_\_

Liquefaction? \_\_\_\_\_

Landslide or slippage? \_\_\_\_\_

*These topics must be addressed  
by a soils report*

b. Is an engineering geology report necessary to evaluate the project? NO

4. Soils

a. Are there any anticipated adverse soil conditions on the project site? UNKNOWN

b. If yes, what are these adverse soil conditions? N.A.

c. Is a soils report necessary? YES

5. Land Form

a. What is the average natural slope of the site? \_\_\_\_\_

b. What is the maximum natural slope of the site? \_\_\_\_\_

*FLAT*

6. Noise

Are there any traffic-related noise levels impacting the site that are significant enough to justify that a noise analysis be required of the applicant? NO

Case No. \_\_\_\_\_

7. Air Quality

If there is any direct or indirect automobile usage associated with this project, complete the following:

	<u>Total Vehicle Trips (per day)</u>		<u>Emission Factor</u>		<u>Grams of Pollution</u>
CO	8925	X	118.3	=	1,055,828
Hydrocarbons	8925	X	18.3	=	163,328
NO <sub>x</sub> (NO <sub>2</sub> )	8925	X	20.0	=	178,500
Particulates	8925	X	1.5	=	13,388
Sulfur	8925	X	.78	=	6,962

8. Waste Generation

How much solid and liquid (sewage) waste will be generated by the proposed project per day?

Solid 4250 lb/Day      Liquid 21,540 G/Day

What is the location and size of existing sewer lines on or adjacent to the site? 15" sewer line flowing southerly in Industrial Blvd.

Are they adequate to serve the proposed project? YES

9. Public Facilities/Resources Impact

If the project could exceed the threshold of having any possible significant impact on the environment, please identify the public facilities/resources and/or hazards and describe the adverse impact. (Include any potential to attain and/or exceed the capacity of any public street, sewer, culvert, etc. serving the project area.) \_\_\_\_\_

Palomar Street Traffic - see item #2

Remarks/necessary mitigation measures Widening and Improvement of Palomar Street. Note that the relocation of traffic signs at the existing ~~to the~~ entrance road to the trolley station is an issue which must still resolved, as is the location of a public street ~~to~~ which presently crosses the site and the connection of Jayken Way to Palomar Street. These items are all discussed in the analysis and we do not concur with the consultants conclusions or assumptions in these regards.

Roger J. [Signature]  
City Engineer or Representative

7/1/88  
Date

Case No. \_\_\_\_\_

H. FIRE DEPARTMENT

1. What is the distance to the nearest fire station and what is the Fire Department's estimated reaction time? 1 1/2 miles  
3 mins.
2. Will the Fire Department be able to provide an adequate level of fire protection for the proposed facility without an increase in equipment or personnel? Yes
3. Remarks See Plan Correction Sheet

(Signature)  
Fire Marshal

3/10/88  
Date

# Initial Study

CHULA VISTA FIRE DEPARTMENT  
BUREAU OF FIRE PREVENTION

## PLAN CORRECTION SHEET

S/S of Palomar, between  
Industrial

Address 4 Broadway Plan File No. \_\_\_\_\_ Checker Loce Date 3/10/88

Type Constr. \_\_\_\_\_ Occupancy \_\_\_\_\_ No. Stories \_\_\_\_\_ Bldg. Area 127,500 #

The following list does not necessarily include all errors and omissions.

PROVIDE AND SHOW ON PLAN:

- ① Required fire flow is 5,000 gpm
- ② Provide a fully automatic fire sprinkler system to buildings. Systems to be monitored.
- ③ Fire hydrants are required, spacing of 300 feet. Combustible construction materials shall not be placed on-site until fire hydrants are installed, tested and fully operational.
- ④ Access roads shall be 20 ft wide minimum - all weather driving surface.
- ⑤ Access roads shall be within 150 ft. of any portion of buildings.
- ⑥ Fire extinguishers are required.

RECEIVED



MAR 17 1988

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

March 14, 1988

FILE NO. LNG 200

City of Chula Vista  
Environmental Review Coordinator  
P.O. Box 1087  
Chula Vista, California 92012

Re: IS-88-63M

Gentlemen:

Thank you for notifying San Diego Gas & Electric Company (SDG&E) about the initial study located on the south side of Palomar Street, between Industrial and Broadway. SDG&E appreciates having the opportunity to comment

Of special concern to SDG&E is the 250 foot wide fee owned electric right-of-way. The right-of-way is currently occupied with 230/138 kV and 69 kV overhead electric transmission lines. Some of the major issues that should be considered are:

- o Continued unobstructed vehicle access to and along the transmission facilities for patrol, repair and maintenance 24 hours a day is imperative. The ultimate development plan must not hamper this need.
- o Any proposed grading and improvement plan or any other encroachment into the transmission corridor must be reviewed and approved by SDG&E's Transmission Design Section prior to issuing our standard "Permission to Grade Letter "
- o Impacts to the right-of-way by proposed adjacent uses and impacts to proposed adjacent uses by the existing overhead electric facilities should also be examined.
- o Any aspects of the project design and development function that could affect the existing transmission facilities should be considered and land management should be given the opportunity to comment further.

By copy of this letter to Pacific Scene, Inc , I am attaching SDG&E's standard "Guidelines for Contractors/ Developers/Design Engineers" for encroachment to transmission electric easements

If you have any questions regarding SDG&E land rights and leasing requirements, please feel free to call me at 696-2490.

Sincerely,

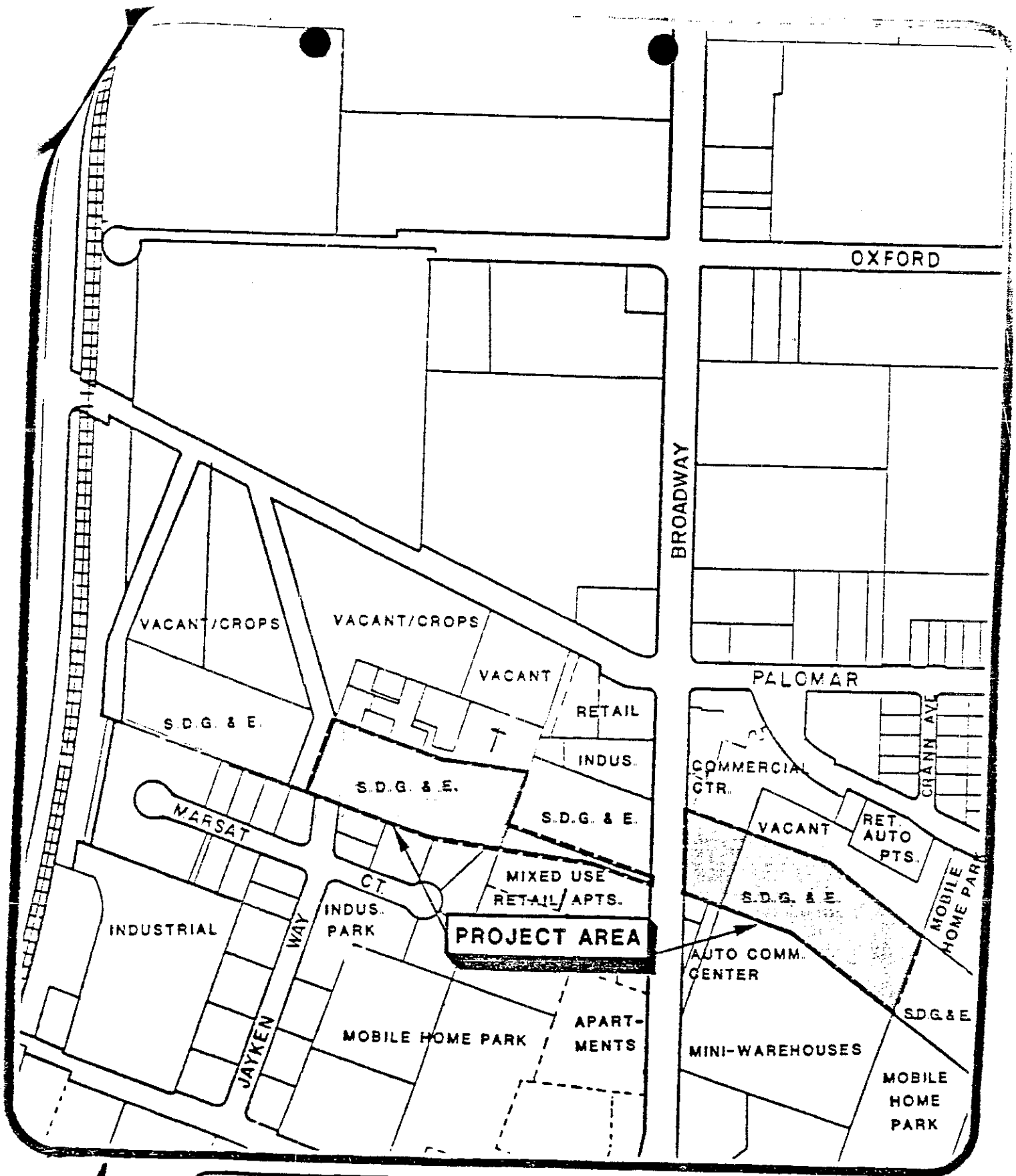
*Thomas H. Duncan*

Thomas H. Duncan  
Property Management Representative

THD/las

cc: T. W. Nebel  
D. L. Rose

Pacific Scene, Inc.  
3900 Harney Street  
San Diego, CA 92110  
Attn: Mr Moxham



PROPOSED R.V. STORAGE LOTS

1450 Jayken Way  
1483 Broadway

**LOCATOR**  
SAN DIEGO  
GAS AND ELECTRIC  
RIGHT OF WAY



# Sweetwater Union High School District

ADMINISTRATION CENTER  
1130 FIFTH AVENUE  
CHULA VISTA, CALIFORNIA 92011  
(619) 691-5553

PLANNING DEPARTMENT

December 15, 1988

DEC 19 1988

Ms. Julie Schilling, Assistant Planner  
City of Chula Vista Planning Department  
Post Office Box 1087  
Chula Vista, CA 92012

Dear Mrs. Schilling:

RE: EIR - 89-4M, PALOMAR TROLLEY CENTER

The Sweetwater Union High School District Planning Department is responsible for monitoring all new development within the district so that an assessment of the impact on school facilities may be made. Therefore, it is important that a copy of the draft EIR be submitted for our review and comment. The standard information required by CEQA and the City of Chula Vista will be sufficient.

If you have any questions or comments, please do not hesitate to contact me at 691-5553.

Respectfully,



Thomas Silva  
Director of Planning  
IS/sly





# CHULA VISTA CITY SCHOOL DISTRICT

84 EAST "J" STREET • CHULA VISTA, CALIFORNIA 92010 • 619 425-9600

EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

## BOARD OF EDUCATION

JOSEPH D. CUMMINGS, Ph.D.  
SHARON GILES  
PATRICK A. JUDD  
JUDY SCHULENBERG  
FRANK A. TARANTINO

## SUPERINTENDENT

ROBERT J. MCCARTHY Ed.D.

December 12, 1988

Mr. Doug Reid  
Environmental Review Coordinator  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

DEC 15 1988

Re: Case No. EIR-89-4M/Palomar Trolley Center  
Project Applicant: Pacific Scene, Inc.

Dear Doug:

Schools in the Chula Vista City School District are at capacity and the District has added 19 relocatable classrooms over the past two years. Students are also being bussed outside their attendance area boundaries to help alleviate this situation.

Please be advised that this project is in the Harborside School attendance area. This facility is currently overcrowded and the District has added six relocatable classrooms to accommodate growth.

This project will impact Harborside School. The current developer fee of 67¢ per square foot of habitable living space may be inadequate to provide facilities for this development. The District would certainly be willing to discuss the possibility of a Mello-Roos Community Facilities District as an alternate form of financing.

If you have any questions, please do not hesitate to contact this office.

Sincerely,

*Kate Shurson*  
Kate Shurson  
Director of Planning

KS:dp

CITY OF CHULA VISTA  
DISCLOSURE STATEMENT

APPLICANT'S STATEMENT OF DISCLOSURE OF CERTAIN OWNERSHIP INTERESTS ON ALL APPLICATIONS WHICH WILL REQUIRE DISCRETIONARY ACTION ON THE PART OF THE CITY COUNCIL, PLANNING COMMISSION AND ALL OTHER OFFICIAL BODIES.

The following information must be disclosed:

1. List the names of all persons having a financial interest in the application.

Khoury Enterprises, a California Limited Partnership

Pacific Scene, Inc.

List the names of all persons having any ownership interest in the property involved.

Kaoru Iwashita

Roy Shigeru Iwashita

Lily Iwashita

Mariko I. Sato

Minoru C. Iwashita

Toshiko Asakawa

2. If any person identified pursuant to (1) above is a corporation or partnership, list the names of all individuals owning more than 10% of the shares in the corporation or owning any partnership interest in the partnership.

All ownership in Item 1 is by

trusts for the benefit of Tawfiq

N. Khoury and his immediate family.

3. If any person identified pursuant to (1) above is a non-profit organization or a trust, list the names of any person serving as director of the non-profit organization or as trustee or beneficiary or trustor of the trust.

4. Have you had more than \$250 worth of business transacted with any member of City staff, Boards, Commissions, Committees and Council within the past twelve months?  
Yes  No  If yes, please indicate person(s) \_\_\_\_\_

Person is defined as: "Any individual, firm, copartnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver, syndicate, this and any other county, city and county, city, municipality, district or other political subdivision, or any other group or combination acting as a unit."

(NOTE: Attach additional pages as necessary.) PACIFIC SCENE, INC.

A. James Moxham 2/23/88  
Signature of applicant/date

A. James Moxham  
Print or type name of applicant

EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

CASE NO. 15 88 63M

Analysis (Provide in Section J an explanation of mitigation proposed for all significant or potentially significant impacts.)

YES POTENTIAL NO

1. Geology

- a. Is the project site subject to any substantial hazards, such as earthquakes, landsliding, or liquefaction?  YES  POTENTIAL  NO
- b. Could the project result in:
  - Significant unstable earth conditions or changes in geological substructure?  YES  POTENTIAL  NO
  - A significant modification of any unique geological features?  YES  POTENTIAL  NO
  - Exposure of people or property to significant geologic hazards?  YES  POTENTIAL  NO

2. Soils

- a. Does the project site contain any soils which are expansive, alluvial or highly erodible?  YES  POTENTIAL  NO
- b. Could the project result in:
  - A significant increase in wind or water erosion of soils, either on or off-site?  YES  POTENTIAL  NO
  - A significant amount of siltation?  YES  POTENTIAL  NO

3. Ground Water

- a. Is the project site over or near any accessible ground water resources?  YES  POTENTIAL  NO

b. Could the project result in:

- A significant change in quantity or quality of ground water?  YES  POTENTIAL  NO
- A significant alteration of direction or rate of flow of ground water?  YES  POTENTIAL  NO
- Any other significant affect on ground water?  YES  POTENTIAL  NO

4. Drainage

- a. Is the project site subject to inundation?  YES  POTENTIAL  NO
- b. Could the project result in:
  - A significant change in absorption rates, drainage patterns or the rate of amount of surface runoff?  YES  POTENTIAL  NO
  - Any increase in runoff beyond the capacity of any natural water-way or man-made facility either on-site or downstream?  YES  POTENTIAL  NO
  - Alterations to the course or flow of flood waters?  YES  POTENTIAL  NO
  - Change in amount of surface water in any water body?  YES  POTENTIAL  NO
  - Exposure of people or property to water related hazards such as, flooding or tidal waves?  YES  POTENTIAL  NO

5. Resources

- Could the project result in:
  - Limiting access to any significant mineral resources which can be economically extracted?  YES  POTENTIAL  NO
  - The significant reduction of currently or potentially productive agricultural lands?  YES  POTENTIAL  NO

6. Land Form

- Could the project result in a substantial change in topography or ground surface relief features?  YES  POTENTIAL  NO

YES POTENTIAL NO

7. Air Quality

- a. Is the project subject to an air quality impact from a nearby stationary or mobile source?
- b. Could the project result in:
  - A significant emission of odors, fumes, or smoke?
  - Emissions which could degrade the ambient air quality?
  - Exacerbation or a violation of any National or State ambient air quality standard?
  - Interference with the maintenance of standard air quality?
  - The substantial alteration of air movement, moisture or temperature, or any significant change in climate either locally or regionally?
  - A violation of the revised regional air quality strategies (RAQS)?

8. Water Quality

- a. Could the project result in a detrimental effect on bay water quality, lake water quality or public water supplies?

9. Noise

- a. Is the project site subject to any unacceptable noise impacts from nearby mobile or stationary sources?
- b. Could the project directly or indirectly result in a significant increase in ambient noise levels?

10. Biology

- a. Could the project directly or indirectly affect a rare, endangered or endemic species of animal, plant or other wildlife; the habitat of such species; or cause interference with the movement of any resident or migratory wildlife?
- b. Will the project introduce domestic or other animals into an area which could affect a rare, endangered or endemic species?

11. Cultural Resources

- a. Will the proposal result in the alteration of or the destruction of a prehistoric, historic, archaeological or paleontological resource?
- b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historical building, structure, or object?
- c. Does the proposal have the potential to cause a physical change which would affect unique ethnic or cultural values?
- d. Will the proposal restrict existing religious or sacred uses within the potential impact area?

12. Land Use

- a. Is the project clearly inconsistent with the following elements of the General Plan?
  - Land Use
  - Circulation
  - Scenic Highways
  - Conservation
  - Housing
  - Noise
  - Park and Recreation
  - Open Space
  - Safety
  - Seismic Safety
  - Public Facilities

YES POTENTIAL NO

YES POTENTIAL NO

YES POTENTIAL NO

b. Is the project inconsistent with the Comprehensive Regional Plan?

16. Energy

Could the project result in:

Wasteful, inefficient or unnecessary consumption of energy?

A significant increase in demand on existing sources of energy?

A failure to conserve energy, water or other resources?

17. Utilities

Could the project result in a need for new systems or alternatives to the following utilities:

- Power or natural gas
- Communications systems
- Water
- Sewer or septic tanks
- Solid waste & disposal

18. Human Health

Could the project result in the creation of any health hazard or potential health hazard?

19. Transportation/Access

Could the project result in:

A significant change in existing traffic patterns?

An increase in traffic that could substantially lower the service level of any street or highway below an acceptable level?

20. Natural Resources

Could the project result in a substantial depletion of non-renewable natural resources?

13. Aesthetics

a. Could the project result in:

Degradation of community aesthetics by imposing structures, colors, forms or lights widely at variance with prevailing community standards

Obstruction of any scenic view or vista open to the public?

Will the proposal result in a new light source or glare?

14. Social

a. Could the project result in:

The displacement of residents or people employed at the site?

A significant change in density or growth rate in the area?

The substantial demand for additional housing or affect existing housing?

15. Community Infrastructure

a. Could the project inhibit the ability of the urban support system to provide adequate support for the community or this project?

b. Could the project result in a deterioration of any of the following services?

- Fire Protection
- Police Protection
- Schools
- Parks or Recreational Facilities
- Maintenance of Public Facilities Including Roads

YES POTENTIAL NO

16. Energy

Could the project result in:

Wasteful, inefficient or unnecessary consumption of energy?

A significant increase in demand on existing sources of energy?

A failure to conserve energy, water or other resources?

17. Utilities

Could the project result in a need for new systems or alternatives to the following utilities:

- Power or natural gas
- Communications systems
- Water
- Sewer or septic tanks
- Solid waste & disposal

18. Human Health

Could the project result in the creation of any health hazard or potential health hazard?

19. Transportation/Access

Could the project result in:

A significant change in existing traffic patterns?

An increase in traffic that could substantially lower the service level of any street or highway below an acceptable level?

20. Natural Resources

Could the project result in a substantial depletion of non-renewable natural resources?

YES POTENTIAL NO

J. PROJECT REVISIONS OR MITIGATION MEASURES

The following project revisions or mitigation measures have been incorporated into the project and will be implemented during the design, construction or operation of the project:

21. Risk of Upset

Will proposals involve:

- a. A risk of an explosion or the release of any hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset condition?

— — — — —  
 — — — — —  
 — — — — —

- b. Possible interference with an emergency plan or an emergency evacuation plan?

— — — — —  
 — — — — —

22. Growth Inducement

Could the service requirements of the project result in secondary projects that would have a growth inducing influence and could have a cumulative effect of a significant level?

— — — — —  
 — — — — —

23. Mandatory Findings of Significance

- a. Does the project have a potential to degrade the quality of the environment, or curtail the diversity of the environment?

— — — — —  
 — — — — —

- b. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals? (A short term impact on the environment is one which occurs in the relatively brief, definitive period of time, while long-term impacts will endure well into the future.)

— — — — —  
 — — — — —

- c. Does the project have impacts which are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)

— — — — —  
 — — — — —

- d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

— — — — —  
 — — — — —

Project Proponent \_\_\_\_\_

Date \_\_\_\_\_

K. DETERMINATION

On the basis of this initial study:

— It is recommended that the decision making authority find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION is hereby forwarded to the decision making authority for consideration and adoption.

— It is recommended that the decision making authority find that although the proposed project could have a significant effect on the environment, there will not be a significant effect on case because the MITIGATION MEASURES described above have been ADDED to the project and a MITIGATED NEGATIVE DECLARATION is hereby forwarded to the decision making authority for consideration and adoption.

It is found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required to evaluate the issues identified in this Initial Study.

— It is found that further information will be necessary to determine any environmental significance resulting from the project and the technical information listed below is required prior to any determination.

Maureen O'Brien  
Environmental Review Coordinator

July 8, 1988  
Date

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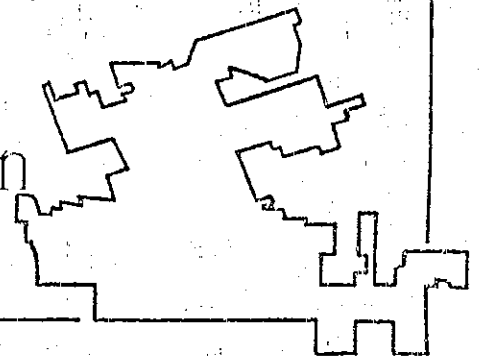


**APPENDIX B**  
**Translation Table**



MONTGOMERY  
SPECIFIC  
PLAN • 1988

A Component of the  
Chula Vista General Plan



**Montgomery Specific Plan  
PLAN ADOPTION RECORD  
Parts One & Two**

Montgomery Planning Committee / September 2, 1987  
Chula Vista City Planning Commission / November 4, 1987 / PCM 88-10  
Chula Vista City Council / January 12, 1988 / Res. No. 13413

**Part Three**

Montgomery Planning Committee / July 6, 1988  
Chula Vista City Planning Commission / August 10, 1988 / PCM 88-10  
Chula Vista City Council / September 13, 1988 / Res. No. 13780

GREGORY R. COX - Mayor  
JOHN GOSS - City Manager  
GEORGE KREMPL - Director of Planning

DANIEL M. PASS, AICP - Principal Planner  
WILLIAM F. HEITER - Senior Planner  
FRANK J. HERRERA-A - Assistant Planner

"TABLE OF TRANSLATION"

"MONTGOMERY SPECIFIC PLAN/PART THREE  
IMPLEMENTATION PROGRAM"

General/Specific Plan Designation	Appropriate "County Zoning"	Suggested Identifiable "City Zoning"
Low/Medium Density Residential (3-6 Du/Ac)	RS6, Single Family Residential RS7, Single Family Residential	R-1, Single-Family Residence Zone R-2, One & Two Family Residence Zone
Medium Density Residential (6-11 Du/Ac)	RV15, Variable Family Residential RMH, Mobile Home Residential	R-1, Single-Family Residence Zone R-2, One & Two Family Residence Zone MHP, Exclusive Mobile Home Park Zone R-3-L, Apartment Residential Zone (Limited)
Medium/High Density Residential (11-18 Du/Ac)	RV15, Variable Family Residential RMH, Mobile Home Residential RU15, Urban Residential	R-2, One & Two Family Residence Zone MHP, Exclusive Mobile Home Park Zone R-3-L, Apartment Residential Zone (Limited)
High Density Residential (18-27 Du/Ac)	RU29, Urban Residential RU24, Urban Residential	R-3, Apartment Residential Zone R-3-H, Apartment Residential Zone
Mercantile & Office Commercial	C32, Convenience Commercial C34, General Commercial/Residential C36, General Commercial	C-O, Administrative & Professional Office Zone C-C, Central/Commercial Zone C-T, Thoroughfare Commercial Zone
Heavy Commercial	C37, Heavy Commercial	I-L, Limited Industrial Zone
Research & Limited Industrial	M52, Limited Impact Industrial M54, General Impact Industrial M58, High Impact Industrial	I-L, Limited Industrial Zone* I-R, Research Industrial Zone
Parks & Open Space	S90, Holding Area	To be determined by Special Studies A - Agricultural Zone Otay River Flood Plain: I-R (Holding Zone) West Fairfield: I-R & R-I (Holding Zone)
White Lands (Special Comprehensive Study Area)	M52, Limited Impact Industrial	To be determined by Special Studies
Special Study Area	RV15, Variable Family Residential C36, General Commercial S94, Transportation & Utility Corridor	To be determined by Special Studies (Appropriate Holding Zone)

\*It is suggested that all lands in the M54, M58, should be placed within the I-L zone, with the exception of those within the White Lands.



**APPENDIX C**  
**Traffic Analysis**





**TRAFFIC ANALYSIS**  
**for**  
**PALOMAR TROLLEY CENTER**  
Chula Vista, CA

October 14, 1988

Prepared by:

Willdan Associates  
6363 Greenwich Drive, Suite 250  
San Diego, CA 92122  
(619) 457-1199

JN:36402:js

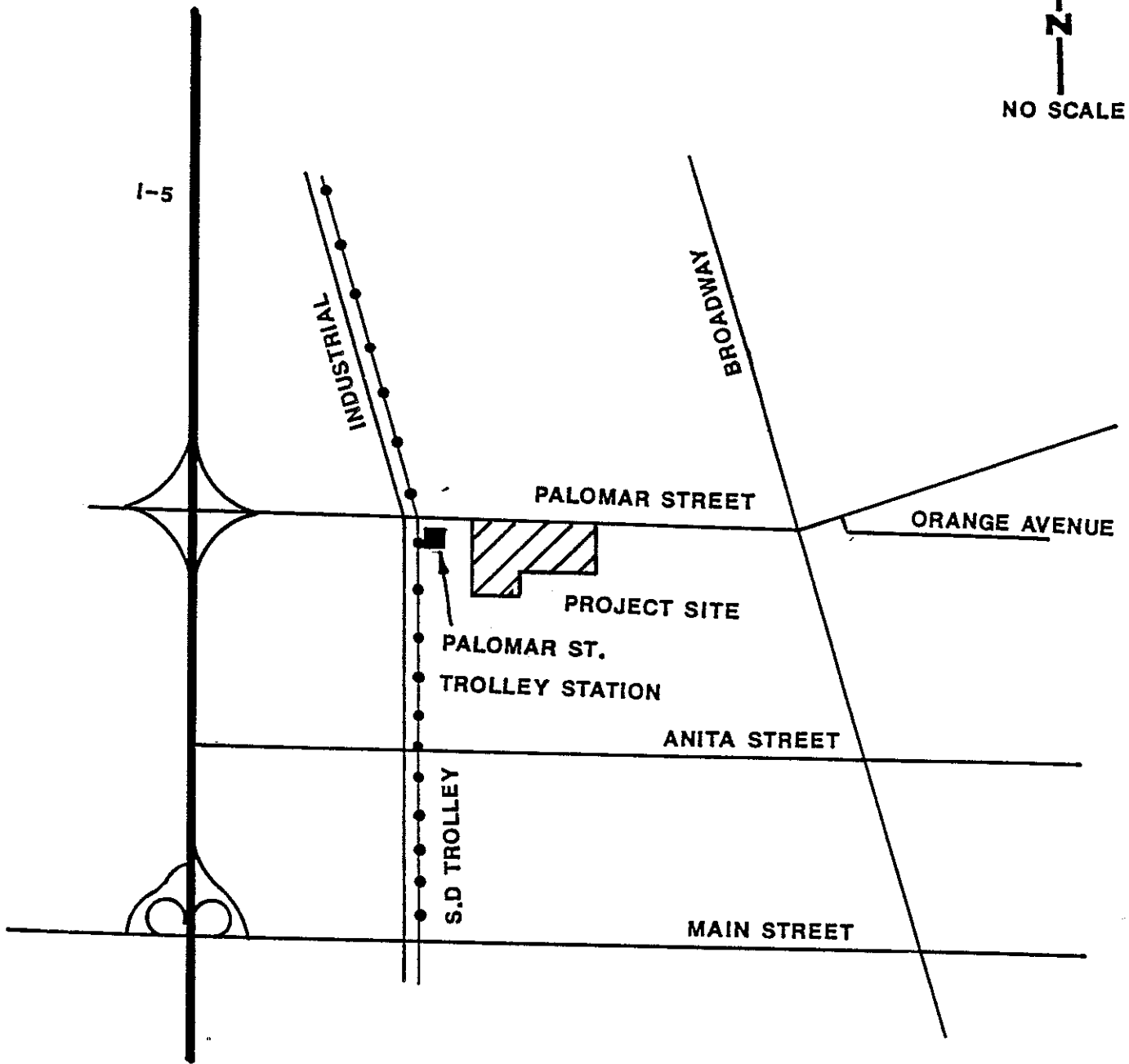
## INTRODUCTION

Pacific Scene, Inc. is proposing construction of a 12.23 acre (127,500 square feet) community shopping center on the south side of Palomar Street, east of the Palomar Street Trolley station in Chula Vista (see Figure 1). A portion of this site (3.2 acres) had previous traffic studies prepared for a proposed Home Club (Federhart & Associates, 2-19-87 and 4-30-87).

Willdan Associates has been retained to evaluate the potential transportation impacts which may be anticipated as a result of the construction of this project as proposed. This analysis identifies existing conditions in the project vicinity, generates, distributes and assigns project (and approved projects) trips onto the street system and evaluates the impact of this additional traffic. This report will also analyze potential impacts with access to the center from the south via the extending Jayken Court, as well as from Palomar Street to the north. Where potential adverse traffic related impacts are identified, measures to mitigate them are suggested.



NO SCALE



VICINITY MAP

FIGURE 1



WILLDAN ASSOCIATES

## EXISTING CONDITIONS

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley station (see Figure 2). The project proposes four points of access from Palomar Street with the central driveway located opposite the driveway to the shopping center on the north side of Palomar street. The project proposes to relocate the existing traffic signal at the entrance to the trolley station to this central driveway. The site is currently vacant and surrounding land uses consist of commercial and light industrial uses. Regional access to the site is provided by Interstate 5 via its diamond interchange with Palomar Street.

Interstate 5 is a divided eight lane freeway running north/south through western San Diego County. According to CALTRANS, the 1987 average annual daily traffic on Interstate 5 was 110,000 north and south of Palomar Street (see Figure 3).

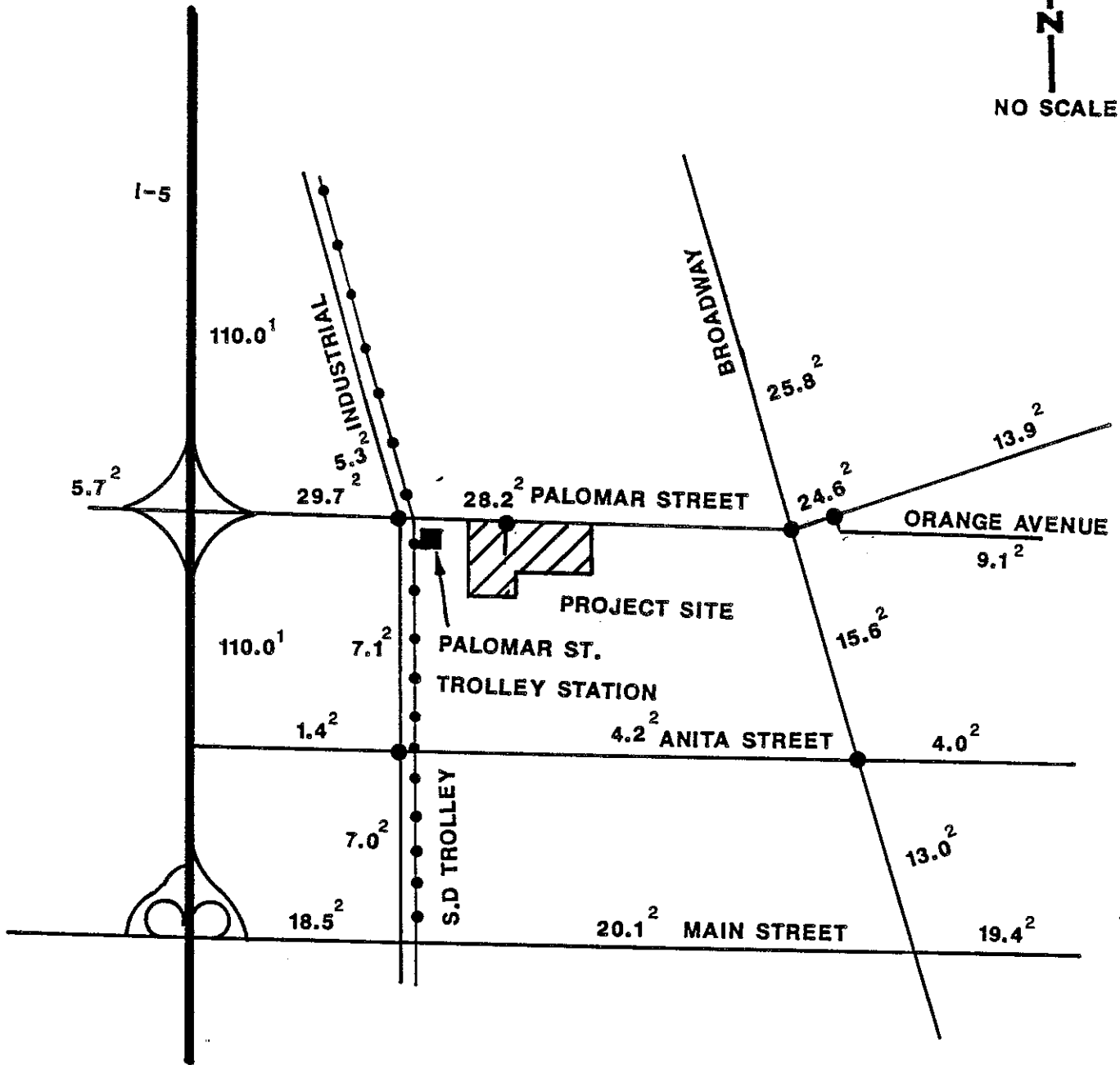
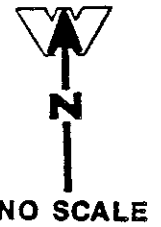
Palomar Street is an east/west major roadway constructed to four travel lanes between Interstate 5 and Orange Avenue. Along the project frontage, Palomar Street is constructed with four travel lanes and a center left turn lane. The intersections of Industrial Boulevard, the trolley station, and Broadway with Palomar Street are controlled by traffic signals. According to the latest traffic counts (City of Chula Vista, 1987 Traffic Flow), Palomar Street carries 29,700 average daily trips (ADT) east of its diamond interchange with Interstate 5. East and west of Broadway, this facility carries 24,600 and 28,200 ADT, respectively. It should be noted, the traffic signal at the Palomar Street trolley station is approximately 380 feet east of the traffic signal at Palomar Street/Industrial Boulevard.

Broadway is a north/south major roadway running through southern San Diego (Byer Boulevard), Chula Vista, and National City (National City Boulevard). In the project vicinity, Broadway is constructed with four travel lanes (plus turn lanes) and has a raised median. Strip commercial land uses front this roadway in the project vicinity. North and south of Palomar Street, this facility currently (1987) carries 25,800 and 15,600 ADT, respectively.

Industrial Boulevard runs north/south between 'L' Street and Coronado Avenue (in the City of San Diego) and acts as a frontage road east of Interstate 5. The San Diego trolley tracks run along the east side of this roadway along its entire length. Industrial boulevard is constructed with two travel lanes in the project vicinity and carries 5,300 and 7,100 ADT north and south of Palomar Street, respectively.

Anita Street is an east/west two lane roadway in the project vicinity (with on street parking) and serves primarily high density residential and industrial land uses. Between Industrial Boulevard and Broadway, Anita Street currently carries 4,200 ADT.





SOURCES: CALTRANS<sup>1</sup>  
 CITY OF CHULA VISTA, 1987 TRAFFIC FLOW<sup>2</sup>  
 ● INTERSECTIONS ANALYZED

EXISTING DAILY TRAFFIC VOLUMES IN THE PROJECT VICINITY (IN THOUSANDS)

FIGURE 3



WILLDAN ASSOCIATES

The proposed project site is well served by public transit. As previously mentioned, the Palomar Street trolley station is adjacent to the project. The San Diego trolley provides service between downtown San Diego and the international border crossing during the peak and off peak commuting periods. San Diego Transit Local Route 32 provides service along Broadway, with connection to the 'H' Street trolley station and the international border crossing. Chula Vista Transit Local Route 702 serves Palomar Street (and the trolley station) and provides connection to the 'H' Street trolley station.

## IMPACTS

In order to evaluate the potential project and cumulative impacts, we have estimated the trips we would expect to be generated from the proposed project (and approved projects in the vicinity). These trips were then distributed and assigned to the street system and critical street segment and intersection capacities evaluated for impacts.

### Trip Generation

The traffic which will result from the proposed project (as well as approved projects) is estimated using accepted trip generation rates and peak hour factors which are based on categories of land uses. These rates have been developed by various agencies and summarized by SANDAG in their Traffic Generators manual.

According to SANDAG, the 127,500 square foot commercial site will generate 70 trips per 1,000 square feet of gross floor area (GFA) at its driveways. Some of these trips, however, will already be on the street system and are either linked with other trips or stopover trips, known also as "passerby" trips. The City of San Diego has completed research on passerby or linked trips, by conducting detailed surveys at similar sites in the City of San Diego. Linked trips refer to a driver stopping at a commercial establishment on their way home from another trip, then continuing home. Therefore, the trip is already on the street system, and should not be "double counted" by the gross traffic generation rate. The recommended cumulative or linked trip rate for a community stopping center (100,000 - 300,000 square feet of GFA) is 49 trips per 1,000 square feet of GFA (per July 2, 1986 memo from Alan Holden, Jr., Deputy Director, Transportation and Traffic Engineering Division, City of San Diego). This trip reduction was verbally agreed upon by the City of Chula Vista Traffic Engineer (Rosenberg, 10-7-88).

Table 1 summarizes the generation of expected trips from the proposed project and recently approved projects specified by the City of Chula Vista. Table 2 indicates the trip generation for the project site assuming development under current light industrial zoning.

As shown the proposed project will generate 6,248 new ADT with 626 PM peak hour trips (splitting evenly inbound and outbound). The approved projects are projected to generate 13,200 ADT with 1,275 trips occurring during the PM peak hour. If the project site were developed under current zoning as light industrial, the estimated daily traffic generation would add 1,100 ADT, with 132 trips occurring during the PM peak hour. Therefore, the proposed project would generate an additional 5,148 ADT and 494 PM peak hour trips over currently zoned light industrial land uses. Due to the proposed land uses (primarily commercial), it was determined the PM peak hour was critical since only a minimal amount of commercial traffic is expected during the morning peak hour. Analyzing the peak hour is important, because this generally places the highest demand on the surrounding street system.



Table 1

TRIP GENERATION

## Proposed Project:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>Hour Out</u>
Comm.	127,500 sf	49/1,000 (linked)	6,248	10%	313	313
Comm.	127,500 sf	70/1,000 (driveway)	8,925	10%	447	446
Tract 86-18:*						
Comm. Shops	12,000 sf	40/1,000	480	9%	22	22
Light Ind.	54,000 sf	10/1,000	<u>540</u>	15%	<u>16</u>	<u>65</u>
			1,020		38	87
Home Club, Chula Vista:**						
Home Club	109,848 sf	60/1,000	6,590	9%	300	300
Retail	42,625 sf	40/1,000	1,700	9%	80	80
Fast Food	2,529 sf	700/1,000	1,770	8%	70	70
Light Ind.	265,000 sf	8/1,000	<u>2,120</u>	12%	<u>50</u>	<u>200</u>
			12,180		500	650

Table 2

TRIP GENERATION

## Current Zoning:

<u>Land Use</u>	<u>Intensity</u>	<u>Trip Rate</u>	<u>ADT</u>	<u>%</u>	<u>PM Peak Hour In</u>	<u>Hour Out</u>
Light Ind.	12.23 ac	90/ac	1,100	12%	26	106

\* Trip generation data obtained from addendum to traffic study for Palomar Street Home Club, Chula Vista (J. Federhart & Associates, 4-30-87).

\*\* Trip generation data obtained from Traffic Impact Analysis Home Club, Chula Vista, California, Linscott, Law & Greenspan, 10-20-88.

### Trip Distribution

The distribution of trips typically results from an estimate of ultimate travel destinations and which elements of the street system would be used to reach those destinations. The basis for this recognition is the driver's consideration of time, distance, and convenience in choosing a route. Attractions include work areas, shopping centers, schools, parks, and public buildings. A major element is the interaction between commercial centers and residential areas.

The trip distribution for the proposed project was taken from previous traffic studies for this site (Home Club, Chula Vista, Federhart & Associates, 2-19-87 and 4-30-87). This distribution was based on a select zone assignment (for the project zone) performed by SANDAG. Figure 4 shows the distribution of trips to and from the proposed project.

As shown, the majority of trips (60 percent) will orient to and from the east along Palomar Street, before splitting 35-15 percent north and south along Broadway, respectively and 10 percent continuing east along Palomar Street and Orange Avenue. The remaining 40 percent will orient to and from the west along Palomar Street, with 30 percent estimated to access Interstate 5 for destinations north and south.

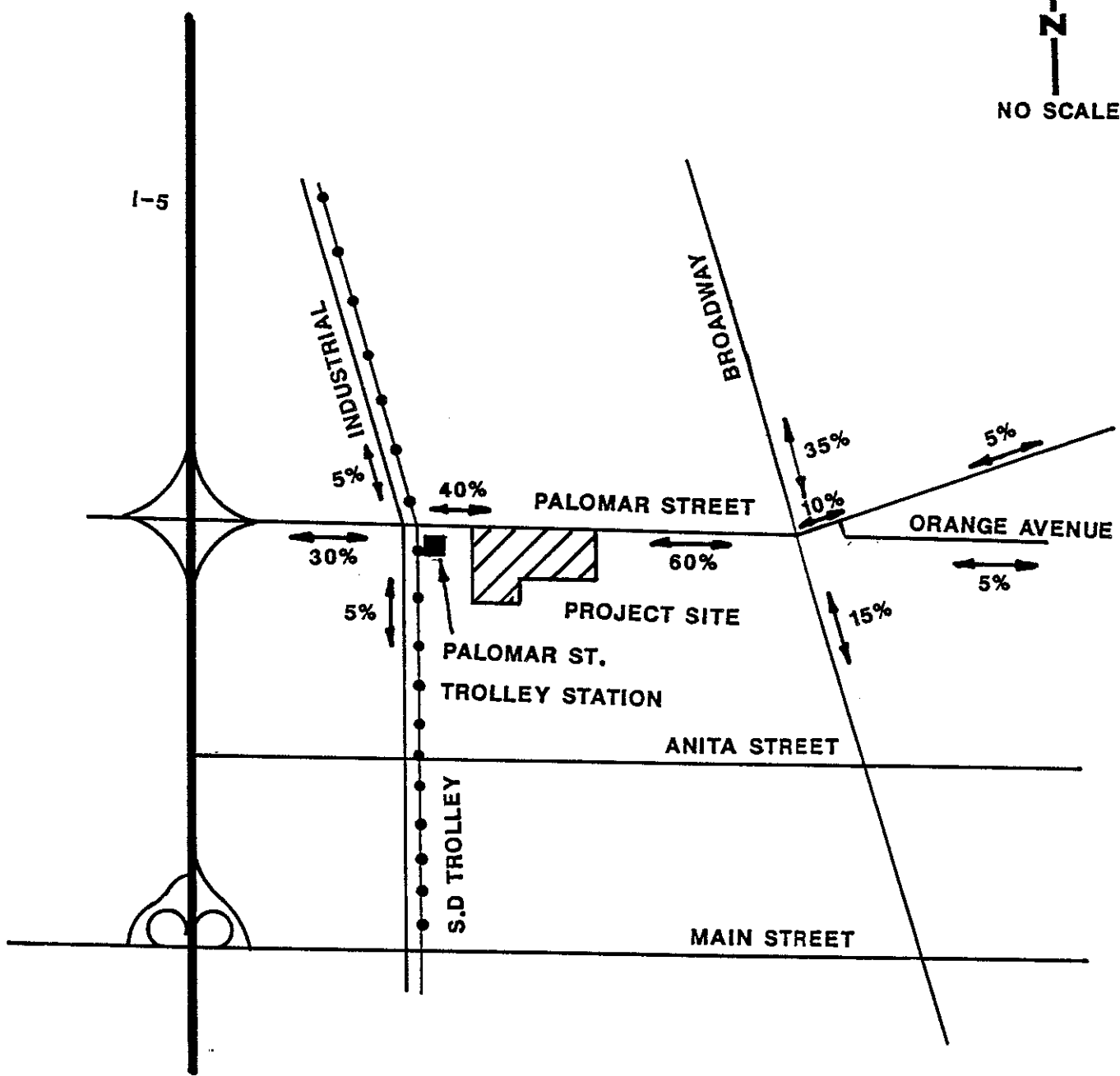
### Street Segments (short term)

Figure 5 shows the assignment of the proposed project's daily and PM peak hour trips. Figure 6 shows existing plus project plus approved projects 86-18 daily traffic volumes on the surrounding street network. It should be noted, the approved projects daily and PM peak hour trips were assigned consistent with their respective Traffic Studies. Figure 7 shows existing plus project plus approved projects daily traffic volumes assuming the project can also take access south via Jayken Court to Anita Street.

In order to assess the short range impacts of the proposed shopping center on street segment capacities, we have utilized Table 3 (City of Chula Vista Proposed Standard Street Classifications), which was developed by discussion with the City of Chula Vista Traffic Engineer (Rosenberg) and is based on approximate level of service (LOS C) capacities and correlates ADT to levels of service for different road classifications. Table 4 shows existing and existing plus project plus approved projects daily traffic volumes and approximate levels of service.

As shown, all roadway segments operate at LOS C or better in the project vicinity under existing conditions. With addition of the approved projects and proposed shopping center, a number of segments will be significantly impacted.

Palomar Street between Interstate 5 and Broadway is estimated to carry between 34,700 and 36,900 ADT under existing plus project plus approved project conditions. This is LOS E for the existing four lane major facility.

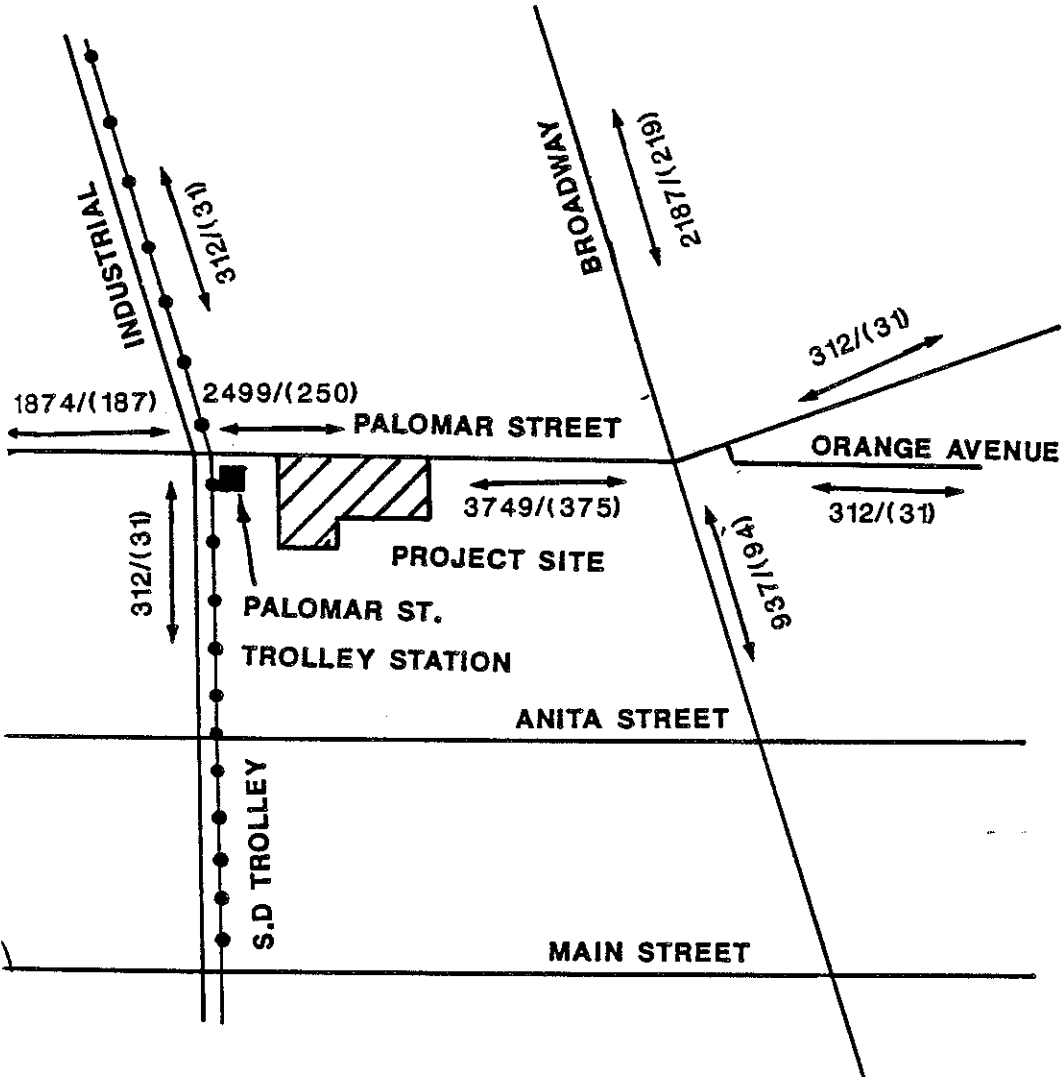
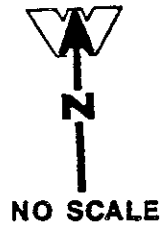


TRIP DISTRIBUTION FOR THE PROPOSED PROJECT

FIGURE 4



WILLDAN ASSOCIATES



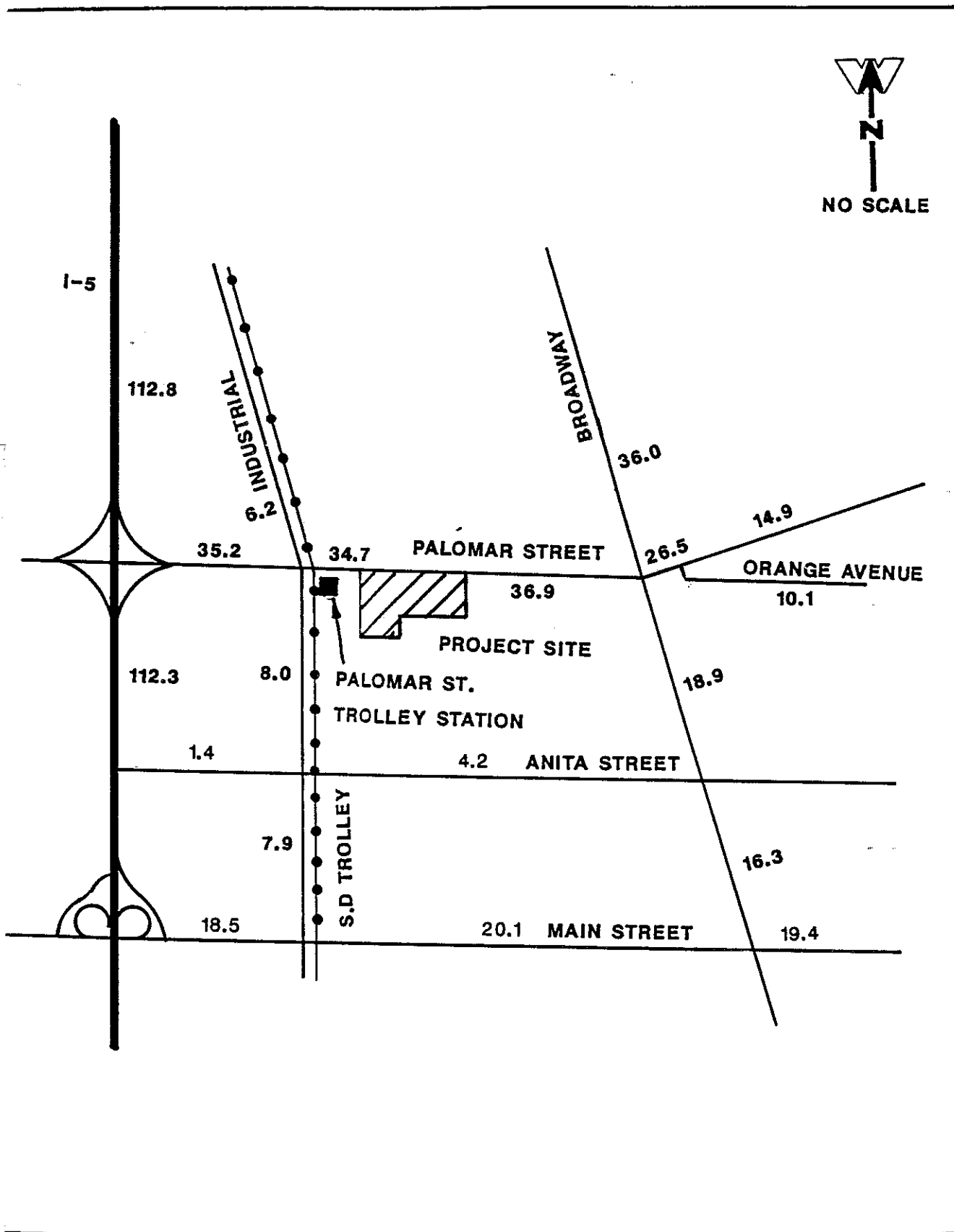
AK HOUR)

OF PROPOSED PROJECT TRIPS


FIGURE 5

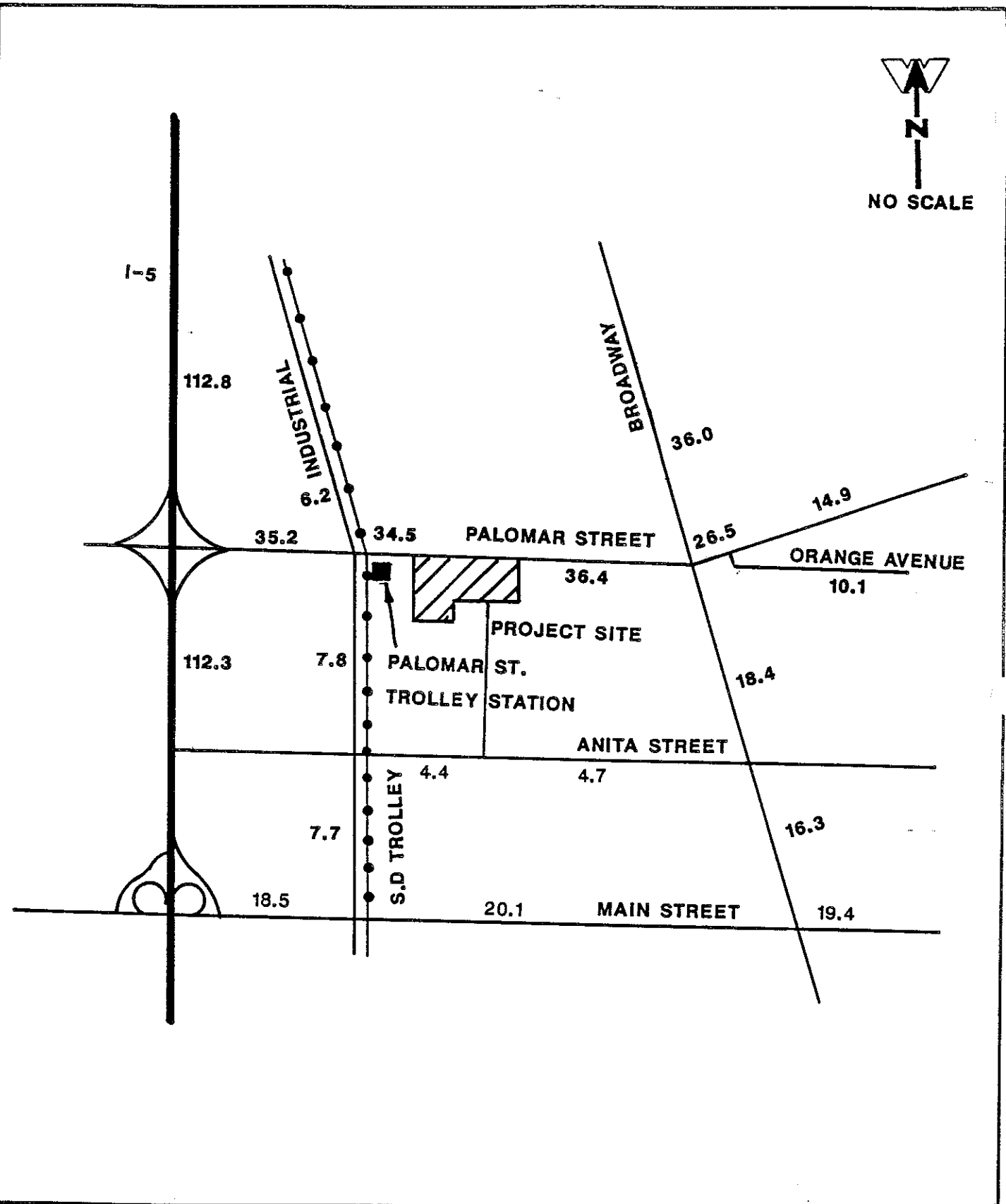


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**EXISTING+ PROJECT + APPROVED PROJECTS  
DAILY TRAFFIC VOLUMES (IN THOUSANDS)**

**FIGURE 6**  
 **WILLDAN ASSOCIATES**



EXISTING + PROJECT + APPROVED PROJECTS  
 DAILY TRAFFIC VOLUMES WITH ACCESS TO  
 JAYKEN COURT (IN THOUSANDS)

FIGURE 7



WILLDAN ASSOCIATES

Table 3.

CITY OF CHULA VISTA PROPOSED STANDARD STREET CLASSIFICATION  
AVERAGE DAILY VEHICLE TRIPS

ROAD		LEVEL OF SERVICE				
CLASS	X-SECTION V/C RATIO	A (.6)	B (.7)	C* (.8)	D (.9)	E (1.0)
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500
Major Road	80/100	22,500	26,300	30,000	33,800	37,500
Collector	64/84	15,000	17,500	20,000	22,500	25,000
Modified Collector	52/72	11,300	13,100	15,000	16,900	18,800
Light Collector	40/60	7,500	8,800	10,000	11,300	12,500

\* LOS C capacities based on discussions with City of Chula Vista Traffic Engineer. All other capacity calculations based on V/C ratios.

Table 4

## Selected Street Segments and Associated Levels of Service

(volumes in thousands)

<u>Street Segment</u>	<u>Configuration</u>	<u>Existing Volume</u>	<u>LOS</u>	<u>Existing + Project *</u>	<u>LOS</u>	<u>With Access to South*</u>	<u>LOS</u>
<u>Palomar St.</u>							
- 1-5 to Industrial	4 lanes	29.7	C	35.2	E	35.2	E
- Industrial/Trolley Station	"	28.2	C	34.7	E	34.5	E
- Trolley Station/Broadway	"	28.2	C	36.9	E	36.4	E
- Broadway/Orange	"	24.6	B	26.5	C	26.5	C
<u>Industrial Blvd.</u>							
- N. of Palomar	2 lanes	5.3	A	6.2	A	6.2	A
- Palomar to Anita	"	7.1	A	8.0	B	7.8	B
- Anita/Main	"	7.0	A	7.9	B	7.7	B
<u>Broadway</u>							
- N. of Palomar	4 lanes	25.8	B	36.0	E	36.0	E
- S. of Palomar	"	15.6	A	18.9	A	18.4	A
<u>Anita St.</u>							
- Industrial/Jayken	2 lanes	4.2	A	4.2	A	4.4	A
- Jayken/Broadway	"	4.2	A	4.2	A	4.7	A

\* Includes trips from approved projects.



Broadway north of Palomar Street is projected to operate at LOS E under existing plus project plus approved project conditions as a four lane major facility. No significant impacts are expected on Broadway south of Palomar Street. Industrial Boulevard and Anita Street will both continue to operate at acceptable levels of service under existing plus project plus approved project development in their current two lane configurations.

Should the proposed project take access to Anita Street via Jayken Court (as well as to Palomar Street), similar impacts are expected to the street segments in the project vicinity.

### Intersections (short term)

Intersections are of particular interest, since the level of service at which an intersection operates is an indication of the delay which can be expected. With respect to this project, the intersections of interest are Palomar Street/Industrial Boulevard, Palomar Street/project entry, Palomar Street/Trolley Station access, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. Table 5 summarizes the projected levels of service (PM peak hour) at these intersections for existing conditions and existing plus project plus approved projects. The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the level of service expected. The method used was specified by the City of Chula Vista assigning hourly lane capacities of 1,700 and 1,500 vehicles per hour of green time for through and turn lanes, respectively, and summing of the critical volumes. Figures A-1 through A-19 in the Appendix show these calculations and Tables A-1 and A-2 contain a description of conditions and ranges for the various levels of service. Since the Industrial Boulevard/Anita Street intersection is controlled by a four-way stop, the Multi-way Stop Control Analysis described in "Transportation Research Board Special Report No. 209. 1985 Highway Capacity Manual" was utilized to analyze this intersection under existing and existing plus project plus approved projects conditions.

Under existing conditions, the Palomar Street/Industrial Boulevard intersection operates at LOS F during the PM peak hour. However, if this intersection were improved to accommodate one left, one through, and one right turn lane on the northbound and southbound approaches (with left turn phasing), the level of service would improve to "C". When the proposed project's and approved projects peak hour trips are added to this intersection, level of service remains at "C".

The Palomar Street/Trolley Station intersection currently operates at LOS C with no north/south left turn phasing provided. The project proposes to remove the traffic signal from this location and relocated it to the east to provide improved signal spacing. This will not impact the capacity of the trolley station access as it will still operate at LOS C. Left turns from the station will be more difficult, although with signals on either side there should be sufficient gaps to allow these turn moves. Should the project develop under current zoning (light industrial) and take access from the existing Trolley Station signal, the resulting level of service would be C (see figure A-20 in the Appendix). However, the impacts associated with the close signal spacing (to industrial Boulevard) would be magnified under this scenario.

The project entry will operate at LOS C assuming it is signalized and westbound Palomar Street is improved to accommodate dual left turn lanes. This level of service remains at LOS C if access is provided south to Anita Street via Jayken Court.

The intersection of Palomar Street/Broadway is currently fully phased and operates at LOS B during the PM peak hour. The level of service falls to "D" under the existing plus project scenario. When the proposed project was assumed to have access to Anita Street via Jayken Court, the level of service remains at D. The level of service at this intersection can be improved to C if eastbound Palomar Street is improved to accommodate a dual left turn lane. When access is also assumed south to Anita Street via Jayken Court, the level of service at this intersection is B. All other intersections operate at LOS B or higher during the PM peak hour under either access scenario.

Table 5  
Intersection Levels of Service in the Project Vicinity

<u>Intersection</u>	<u>Existing LOS</u>	<u>Existing + Project LOS*</u>	<u>With Access Assumed South LOS*</u>
Palomar/Industrial	F	C <sup>1</sup>	C <sup>1</sup>
Palomar/Broadway	B	C <sup>1</sup>	C <sup>1</sup>
Palomar/Orange	A	A	A
Broadway/Anita	A	A	A
Industrial/Anita	A/B	B	B
Palomar/Trolley Station	C	C <sup>2</sup>	C <sup>2</sup>
Palomar/Project Entry	N/A	C <sup>1</sup>	C

\* Includes approved projects

1 With mitigation

2 Assumes unsignalized

### Long Range Impacts

The City of Chula Vista is currently revising their Circulation Element in conjunction with the revision to their General Plan. As part of the Circulation Element update, a series of buildout travel forecasts were performed (four density scenarios) to estimate future street classifications required to accommodate travel demand. Preliminary forecast volumes for the street network in the project vicinity indicate future volumes will stabilize at today's levels or decrease. This seems reasonable, because land uses in the project vicinity are virtually buildout today, and future development in this area would be a result of redevelopment. Also, with buildout of planned land uses in the City's eastern area, some existing traffic could be redistributed. Therefore, we will consider the existing plus project plus Chula Vista Tract 86-18 scenario as the worst case analysis. It should be noted, that volumes along Interstate 5 will be much higher than today. This is a result of future development in the Otay Mesa area.

## Access

Primary access to the proposed project is via a central driveway opposite the access to the recently constructed shopping center on the north side of Palomar Street. Three other points of access are proposed, which would be restricted to right turns in and out only (this would be in conjunction with the construction of a raised median on Palomar Street along the project frontage).

These right turn only driveways will handle relatively small volumes of traffic. Since Palomar Street is relatively straight and level, there will be good sight distance from all driveways. The proposed traffic signal will also create gaps in traffic. Therefore, we can conclude that these driveways will operate with no problems.

## Internal Circulation and Parking

The current site plan (refer to Figure 2) indicates four points of access to the center's internal circulation system. The central access is via the signalized project entry and three right turn only driveways to the east. Circulation with the center is provided by an inner loop road around the center. Connecting to the inner loop road are a series of parking aisles. It should be noted, if access is taken south to Anita Street via Jayken Court, internal circulation should be reanalyzed at the time a modified site plan is available.

The plan also indicates four restaurant pads on the north side of the property (adjacent to Palomar Street) which could include drive through operation. This could significantly affect internal traffic patterns should all four restaurants operate with drive through windows. Since specific details regarding the restaurant site plan and drive through operation are not available at this time, they should be evaluated on an individual basis at the conditional use permit stage of development. At that time, issues such as stacking and site specific internal circulation should be addressed to the satisfaction of the City Traffic Engineer.

The site plan shows 637 parking spaces to serve the 127,500 square foot shopping center. This equates to one parking space for every 200 square feet of gross floor area (GFA). This is consistent with City of Chula Vista zoning requirements for commercial uses. The spaces are located evenly throughout the site, therefore no parking impacts are anticipated.

## MITIGATION MEASURES

The proposed Palomar Trolley Center will add approximately 6,250 newly generated ADT to the surrounding street system, with 626 trips occurring during the PM peak hour. The distribution of trips is estimated to split 60 and 40 percent east and west along Palomar Street, respectively.

Street segments in the project vicinity currently operate at acceptable levels of service. When the projects and approved projects traffic is added, Palomar Street is projected to fall to LOS E. However, when the proposed project improves Palomar Street to major standards (with a raised median) along its frontage, this will increase capacity and improve traffic flow. Broadway north of Palomar Street will deteriorate to LOS E under existing plus project plus approved project conditions. All other street segments are projected to operate at acceptable levels of service with development of the project and approved projects. The City of Chula Vista will be improving the segment of Palomar Street between Interstate 5 (and associated ramp improvements) and Industrial Boulevard. This will mitigate the projected LOS E and help traffic flow. Since the intersections along Palomar Street are projected to operate at acceptable levels of service during the PM peak hour. Since this analysis was conducted under peak conditions, the overall level of service (LOS E) is overstated.

The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F. If both north and southbound Industrial Boulevard approaches were improved to provide one left, one through, and one right turn lane (along with full signal phasing), level of service would improve to C during the PM peak hour. Level of service would remain at C when proposed project and approved project trips are added to existing traffic flows. The project should contribute toward this improvement on a fair share basis.

The Palomar Street/Trolley Station driveway intersection is proposed to be modified by the relocation of the traffic signal to the main project entry. This should have only insignificant impacts to the existing and future traffic. By relocating this signalized intersection further to the east and increasing spacing between the existing traffic signal at industrial Boulevard, this will create a beneficial impact for traffic flow along this section of Palomar Street. The project should provide an internal connection to the Trolley Station so that left turning vehicles from the Trolley Station can use the projects signalized entry to avoid very long traffic delays during the PM peak hour.

The Palomar Street/Project entry is projected to operate at LOS C assuming dual left turn lanes on westbound Palomar Street during the PM peak hour with access assumed to Palomar Street only. Also, an acceptable level of service is anticipated during the AM peak hour with few turning vehicles in the traffic stream.

In order to achieve LOS C during the PM peak hour, the Palomar Street/ Broadway intersection will require improvement of eastbound Palomar Street to accommodate a dual left turn lane under existing plus project plus approved projects development. All other intersections will operate at acceptable levels of service during the PM peak hour in their existing configurations under existing plus project plus approved project development. Street segment and intersection levels of service were consistent when access was assumed to Palomar Street only and with access to Anita Street via Jayken Court.

Palomar Street and Broadway could deteriorate to LOS E under short term cumulative development. Since these streets could not be feasibly widened to six travel lanes, short term adverse traffic impacts could result. However, most intersections in the project vicinity are projected to operate at acceptable levels of service during the PM peak hour, and this is generally where "bottlenecks" in the street system occur.

A detailed site analysis should be submitted to the City Traffic Engineer for the individual restaurant sites at the time of conditional use permit application.

Table A-1

Descriptions of Conditions for Various Levels of Service

<u>Level of Service</u>	<u>Operating Conditions</u>
A	Free flow; speed controlled by driver's desires, speed limits, or physical roadway conditions.
B	Stable flows; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	Stable flow; speeds and maneuverability more closely restricted.
D	Approaches unstable flow; tolerable speeds can be maintained, but temporary restrictions to flow cause substantial drops in speed. Little freedom to maneuver, comfort and convenience low.
E	Volumes near capacity; flow unstable; stoppages of momentary duration. Ability to maneuver severely limited.
F	Forced flow; low operating speeds; volumes below capacity, queues form.

Table A-2

Level of Service Ranges

For Signalized Intersections

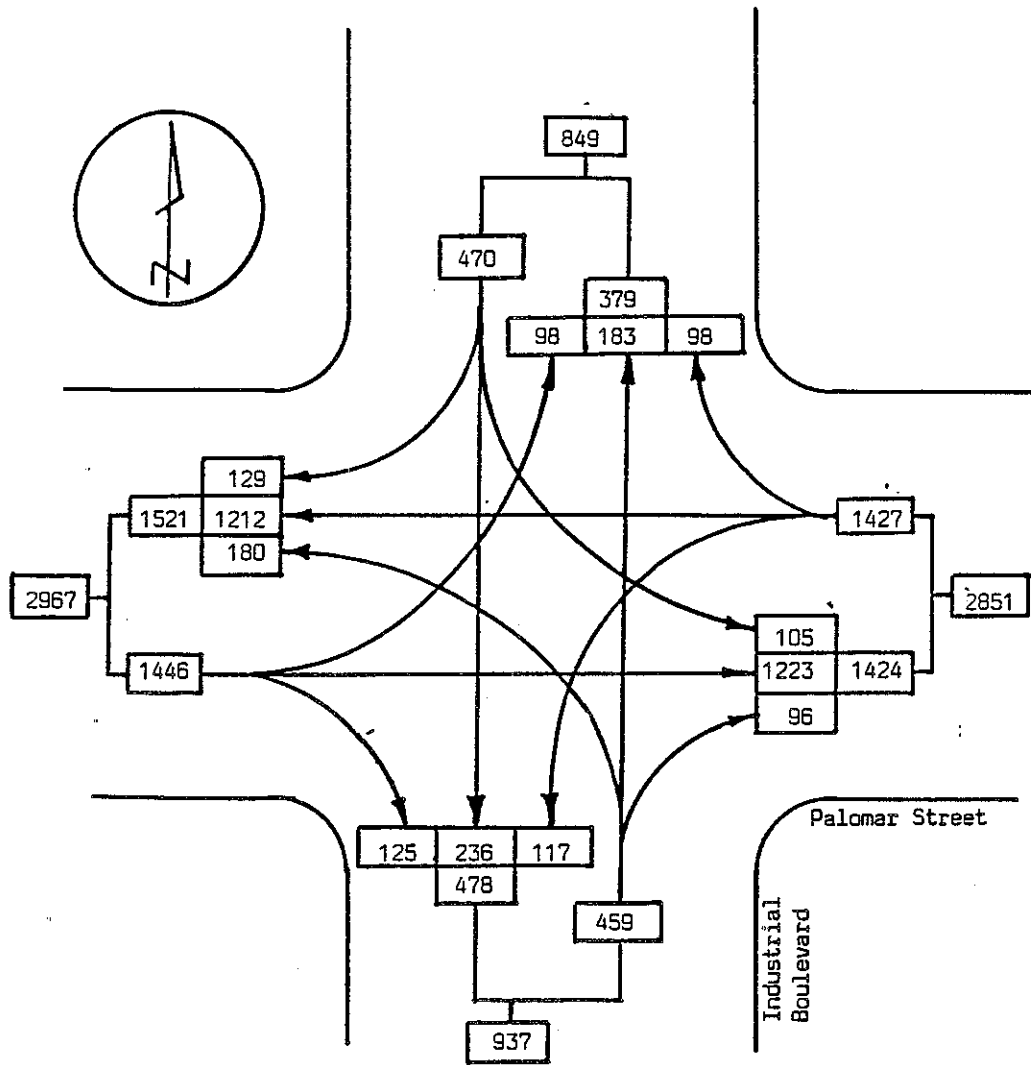
<u>Level of Service</u>	<u>Typical V/C Ratio</u>
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	varies

Table A-3

Level of Service and Expected Delay  
For Reserve Capacity Ranges

Unsignalized Intersections

<u>Reserve Capacity</u>	<u>Level of Service</u>	<u>Expected Traffic Delay</u>
400 or More	A	Little or No Delay
300 to 399	B	Short Traffic Delays
200 to 299	C	Average Traffic Delays
100 to 199	D	Long Traffic Delays
0 to 99	E	Very Long Traffic Delays
Less than 0	E	Failure - Extreme Congestion
(Any Value)	F	Intersection Blocked by External Causes



ICU ANALYSIS

E/B Palomar Street 1 left, 1 through, 1 through + right  
 W/B Palomar Street 1 left, 1 through, 1 through + right  
 N/B Industrial Boulevard 1 left, 1 through + right  
 S/B Industrial Boulevard 1 left + through + right

$$\frac{1223 + 125}{3400} + \frac{117}{1500} + \frac{180 + 183}{1500} + \frac{129 + 236 + 105}{1500} =$$

$$.40 + .10(\text{Min}) + .24 + .31 = 1.05\text{---LOS F}$$

Improve N/B + S/B Industrial to accommodate 1 left, 1 through, and 1 right

$$\frac{1223}{3400} + \frac{117}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.36 + .10(\text{Min}) + .14 + .12 = .72\text{---LOS C}$$

Existing Conditions

Palomar Street/Industrial Boulevard

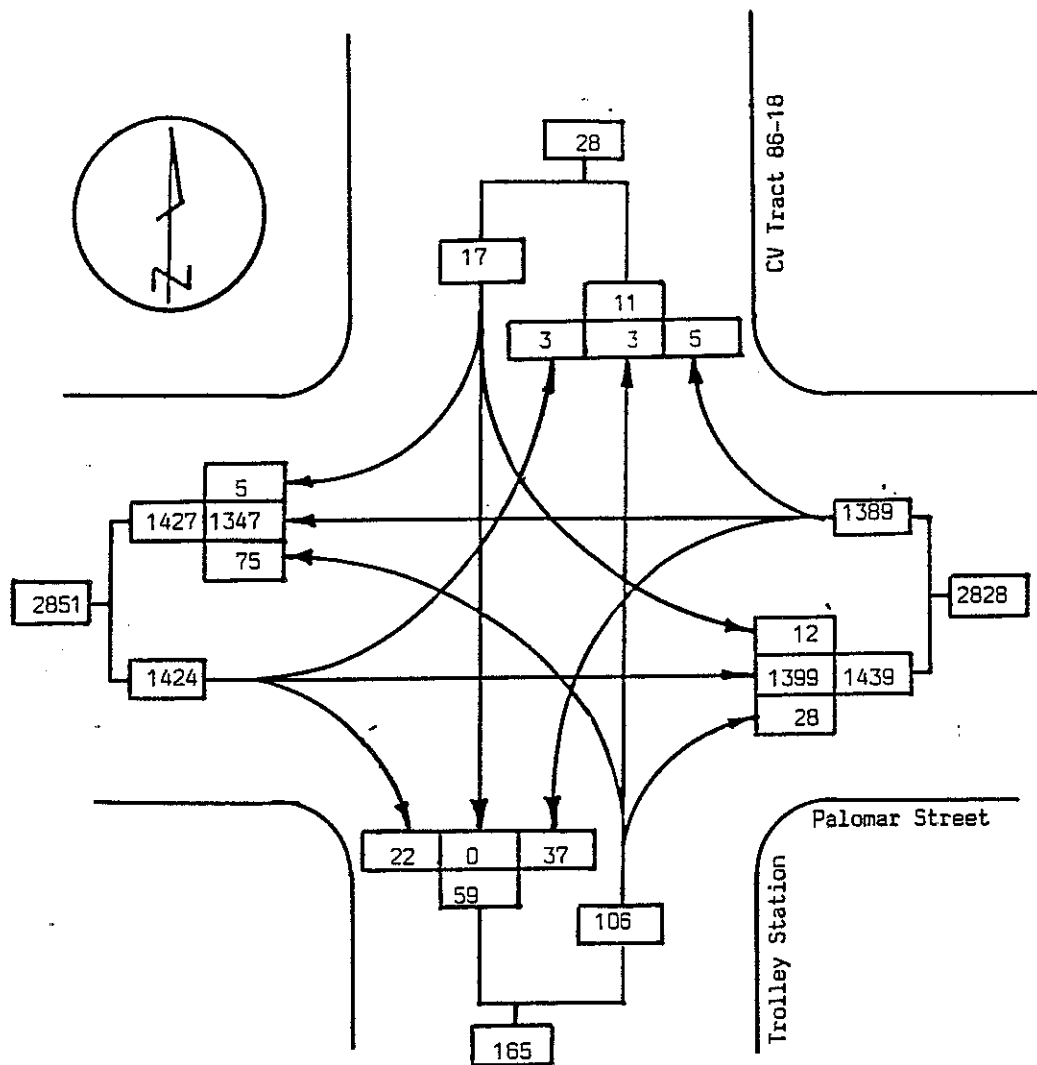
PM Peak Hour  
 (4:45 - 5:45)  
 5/5/88

Figure A - 1



WILLDAN ASSOCIATES





ICU ANALYSIS

E/B Palomar Street            1 left, 2 through, 1 right  
 W/B Palomar Street        1 left, 1 through, 1 through + right  
 N/B Trolley Station        1 left + through, 1 right  
 S/B CV 86-18                1 left + through, 1 right

$$\frac{1399}{3400} + \frac{37}{1500} + \frac{75 + 3}{1500} + \frac{12 + 0}{1500} =$$

$$.41 + .10(\text{Min}) + .10(\text{Min}) + .10(\text{Min}) = .71\text{----LDS C}$$

Existing Conditions

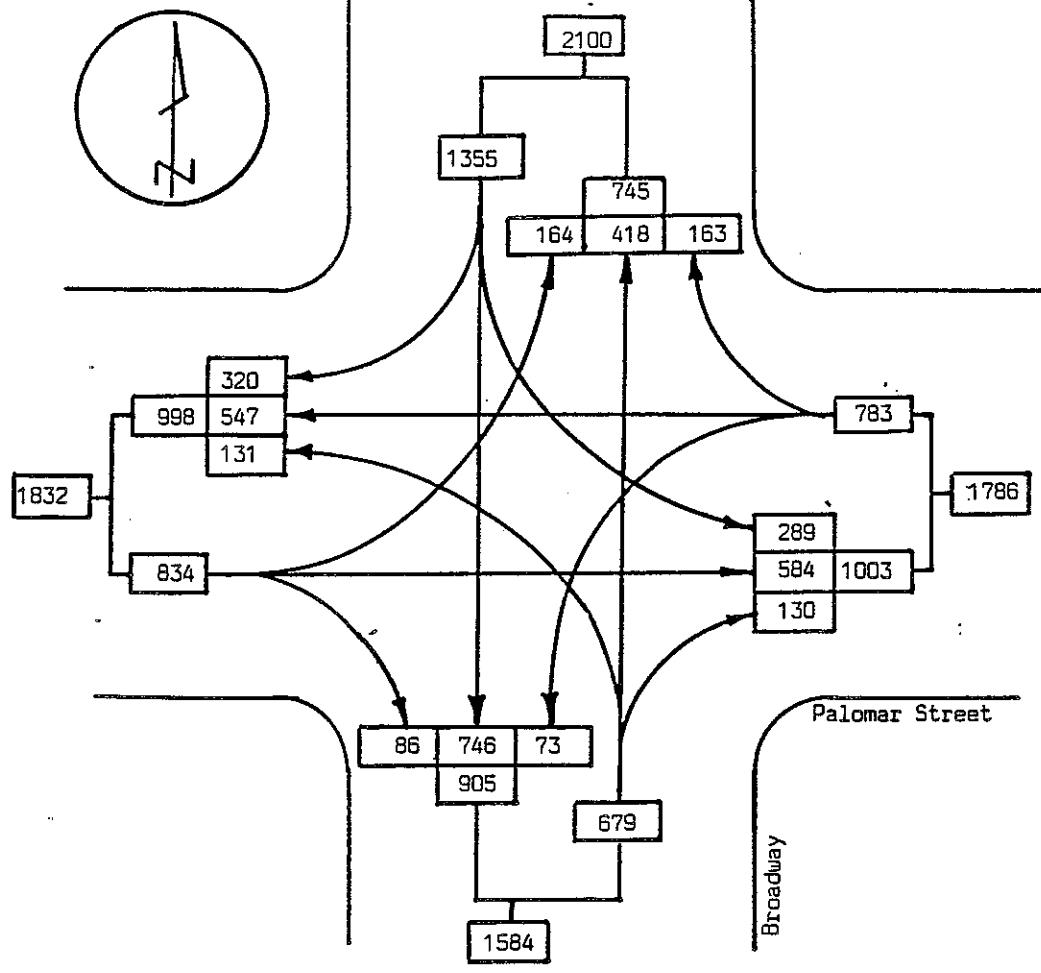
Palomar Street/Trolley Station

PM Peak Hour  
 (4:45 - 5:45)  
 5/5/88

Figure A - 2



WILLDAN ASSOCIATES



ICU ANALYSIS

- E/B Palomar Street            1 left, 2 through, 1 right
- W/B Palomar Street        1 left, 1 through, 1 through + right
- N/B Broadway                1 left, 2 through, 1 right
- S/B Broadway                1 left, 2 through, 1 right

$$\frac{547 + 163}{3400} + \frac{164}{1500} + \frac{746}{3400} + \frac{131}{1500} =$$

$$.21 + .11 + .22 + .10(\text{Min}) = .64 \text{---LOS B}$$

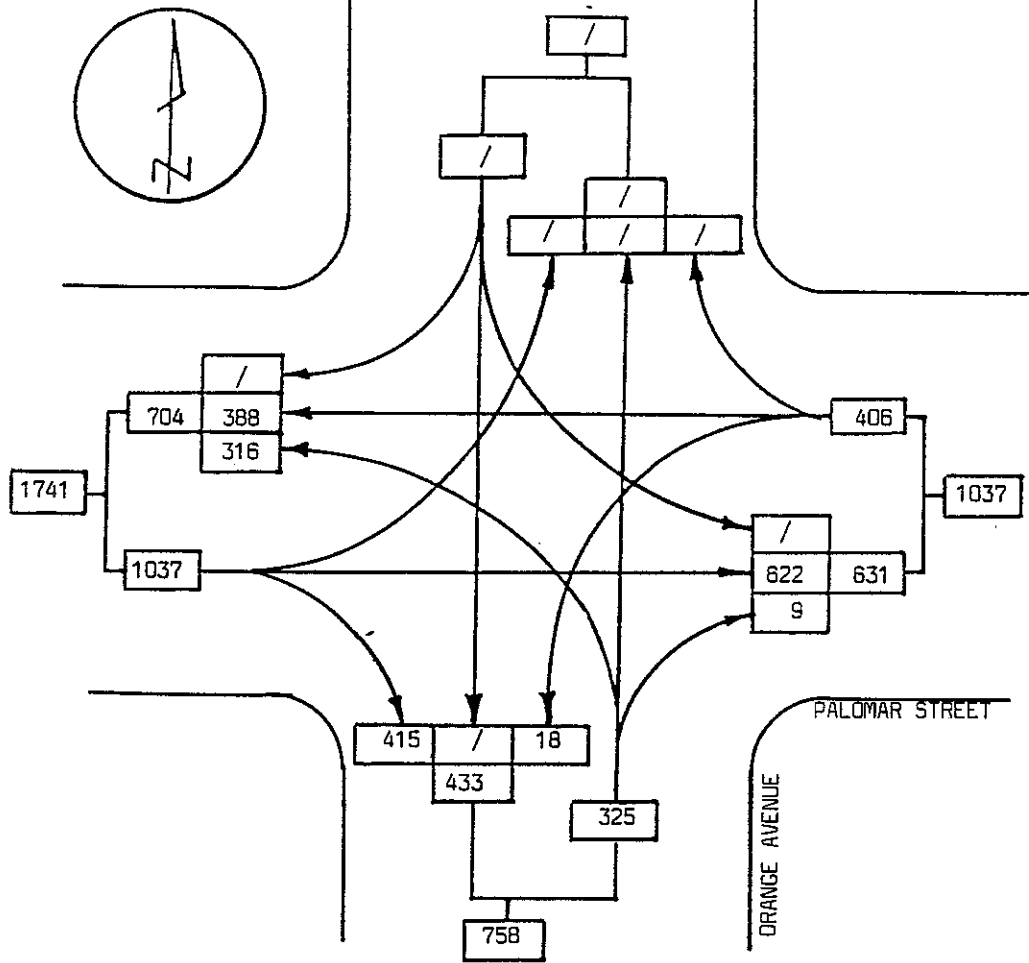
Existing Conditions

Palomar Street/Broadway

PM Peak Hour  
(4:45 - 5:45)  
5/5/88

Figure A - 3





ICU ANALYSIS

E/B Palomar Street            2 through, 1 right  
 W/B Palomar Street         1 left, 2 through  
 N/B Orange Avenue           2 left, 1 right

$$\frac{622}{3400} + \frac{18}{1500} + \frac{316}{3000}$$

$$.18 + .10(\text{min}) + .11 = .39\text{---LOS A}$$

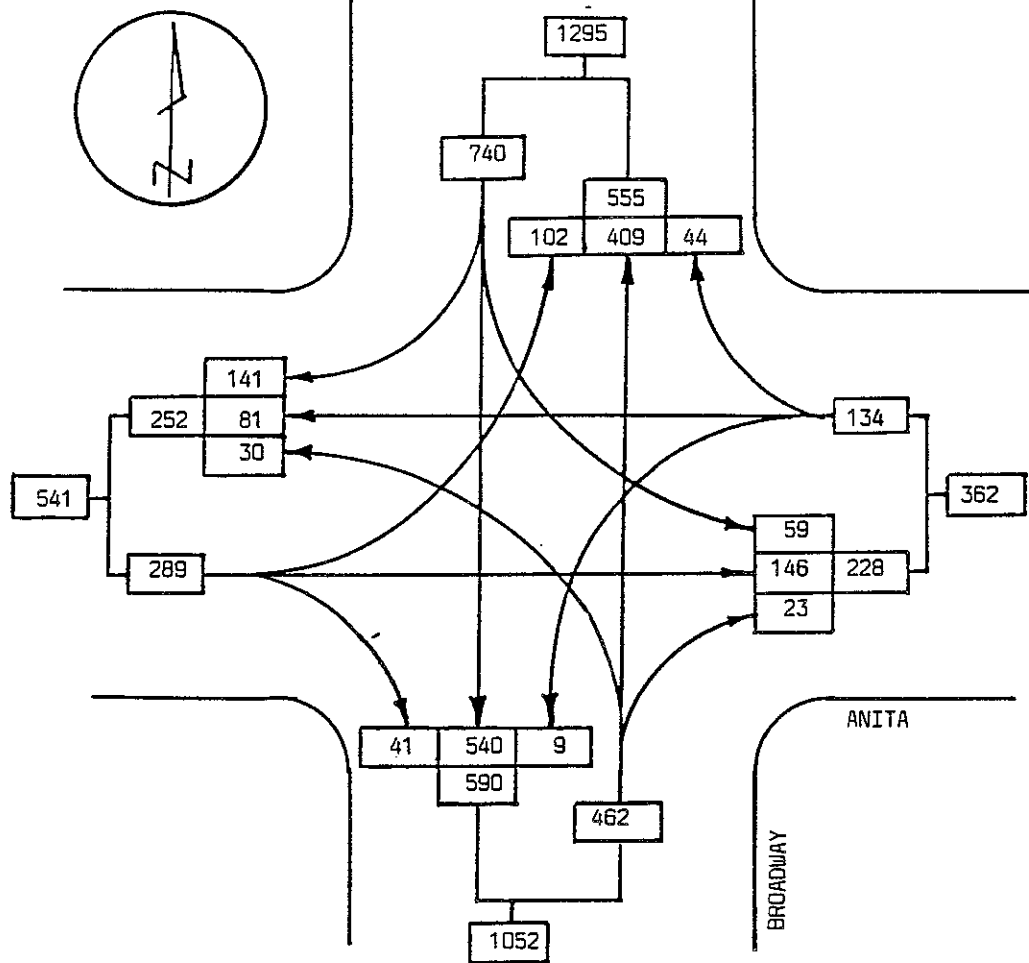
EXISTING CONDITIONS

PALOMAR STREET/ORANGE AVENUE

PM PEAK HOUR  
 (4:45 - 5:45 PM)  
 10/6/88

FIGURE A - 4





ICU ANALYSIS

N/B Broadway                    1 left, 1 through, 1 through + right  
 S/B Broadway                   1 left, 2 through, 1 free right  
 E/B Anita Street                1 left, 1 through + right  
 W/B Anita Street               1 left, 1 through + right

$$\frac{540}{3400} + \frac{30}{1500} + \frac{146 + 41}{1700} + \frac{9}{1500}$$

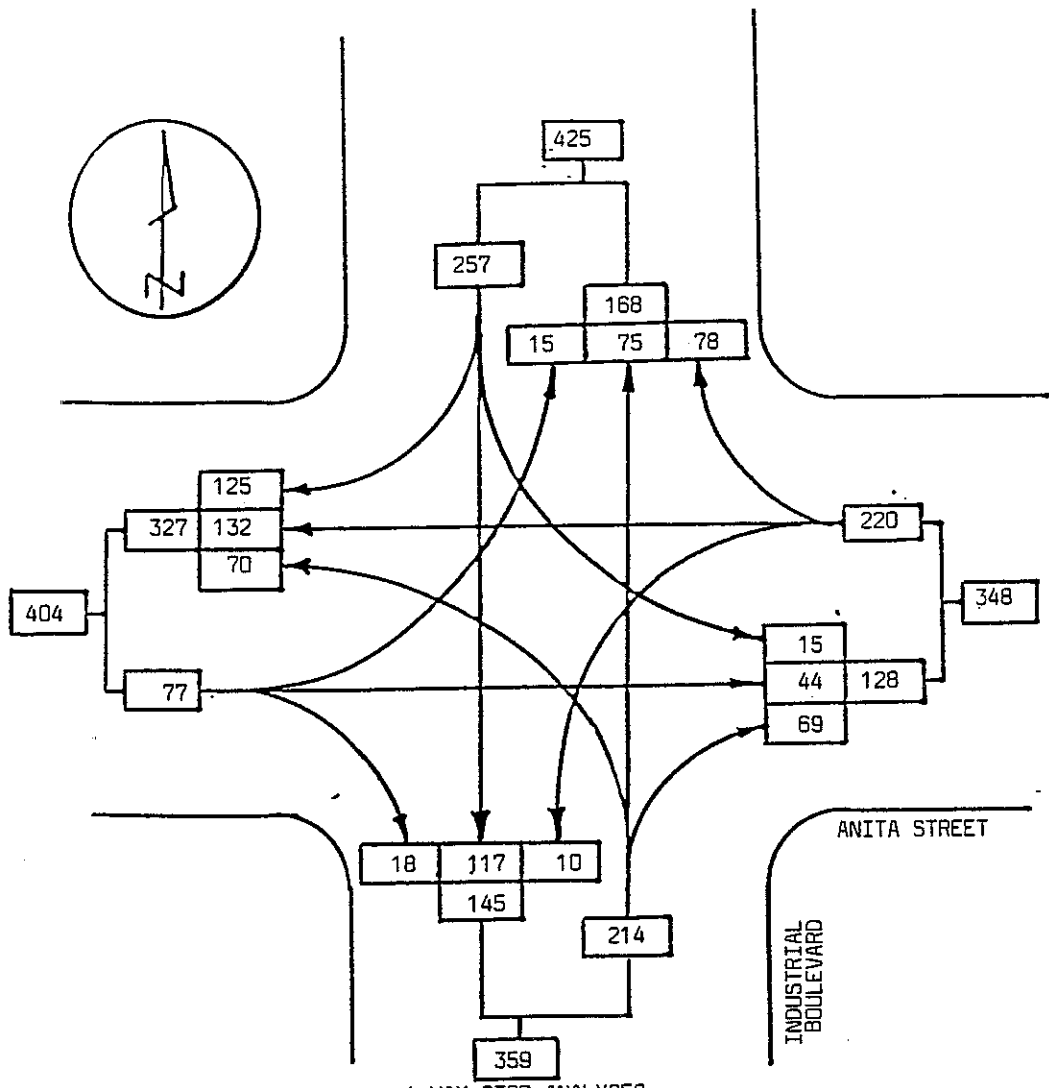
$$.16 + .10(\text{min}) + .11 + .10(\text{min}) = .47\text{---LOS A}$$

EXISTING CONDITIONS  
 BROADWAY/ANITA STREET

PM PEAK HOUR  
 (4:45 - 5:45)  
 10/6/88

FIGURE A - 5





4-WAY STOP ANALYSES

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

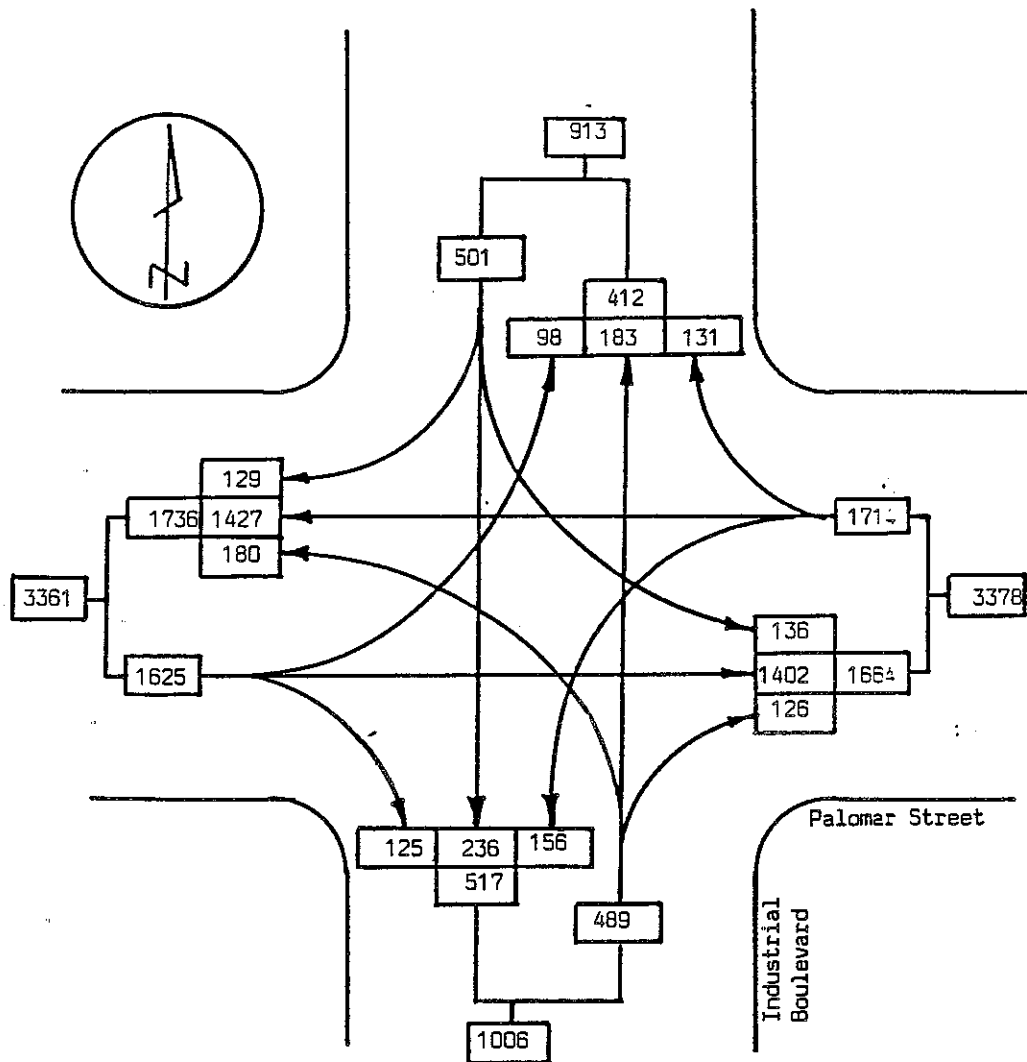
257 + 77 + 214 + 220 = 768----LOS A/B

EXISTING CONDITIONS  
INDUSTRIAL BOULEVARD/ANITA STREET

PM PEAK HOUR  
(4:45 - 5:45)  
10/6/88

FIGURE A - 6





ICU ANALYSIS

E/B Palomar Street	1 left, 1 through, 1 through + right
W/B Palomar Street	1 left, 1 through, 1 through + right
N/B Industrial Boulevard	1 left, 1 through + right
S/B Industrial Boulevard	1 left, 1 through + right

$$\frac{1402 + 125}{3400} + \frac{156}{1500} + \frac{236 + 129}{1700} + \frac{180}{1500}$$

$$.45 + .10 + .21 + .12 = .88 \text{ ----LOS D}$$

Improve N/B and S/B Industrial Boulevard to 1 left, 1 through, 1 right and add exclusive right turn lanes on E/B and W/B Palomar Street.

$$\frac{1402}{3400} + \frac{156}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.41 + .10 + .14 + .12 = .77 \text{ ----LOS C}$$

PM Peak Hour

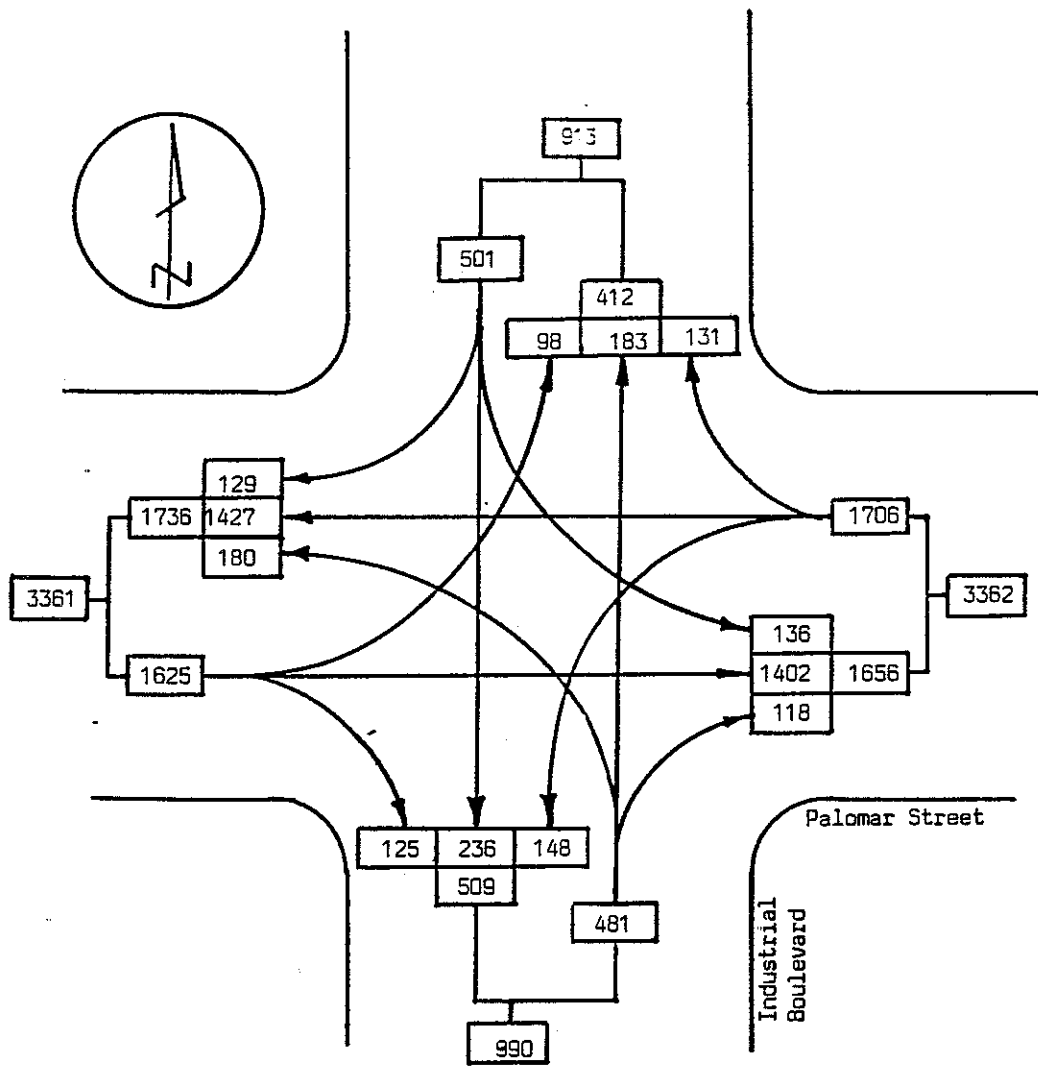
Existing + Project + Approved Projects  
(Access to Palomar Street only)

Palomar Street/Industrial Boulevard

Figure A - 7



WILLDAN ASSOCIATES



ICU ANALYSIS

E/B Palomar Street                    1 left, 1 through, 1 through + right  
 W/B Palomar Street                   1 left, 1 through, 1 through + right  
 N/B Industrial Boulevard            1 left, 1 through + right  
 S/B Industrial Boulevard            1 left, 1 through + right

$$\frac{1402 + 125}{3400} + \frac{148}{1500} + \frac{236 + 129}{1700} + \frac{180}{1500}$$

$$.45 + .10(\text{Min}) + .21 + .12 = .88\text{---LOS D}$$

Improve N/B and S/B Industrial Boulevard to 1 left, 1 through, 1 right and add exclusive right turn lanes on E/B and W/B Palomar Street.

$$\frac{1402}{3400} + \frac{148}{1500} + \frac{236}{1700} + \frac{180}{1500}$$

$$.41 + .10(\text{min}) + .14 + .12 = .77\text{---LOS C}$$

PM Peak Hour

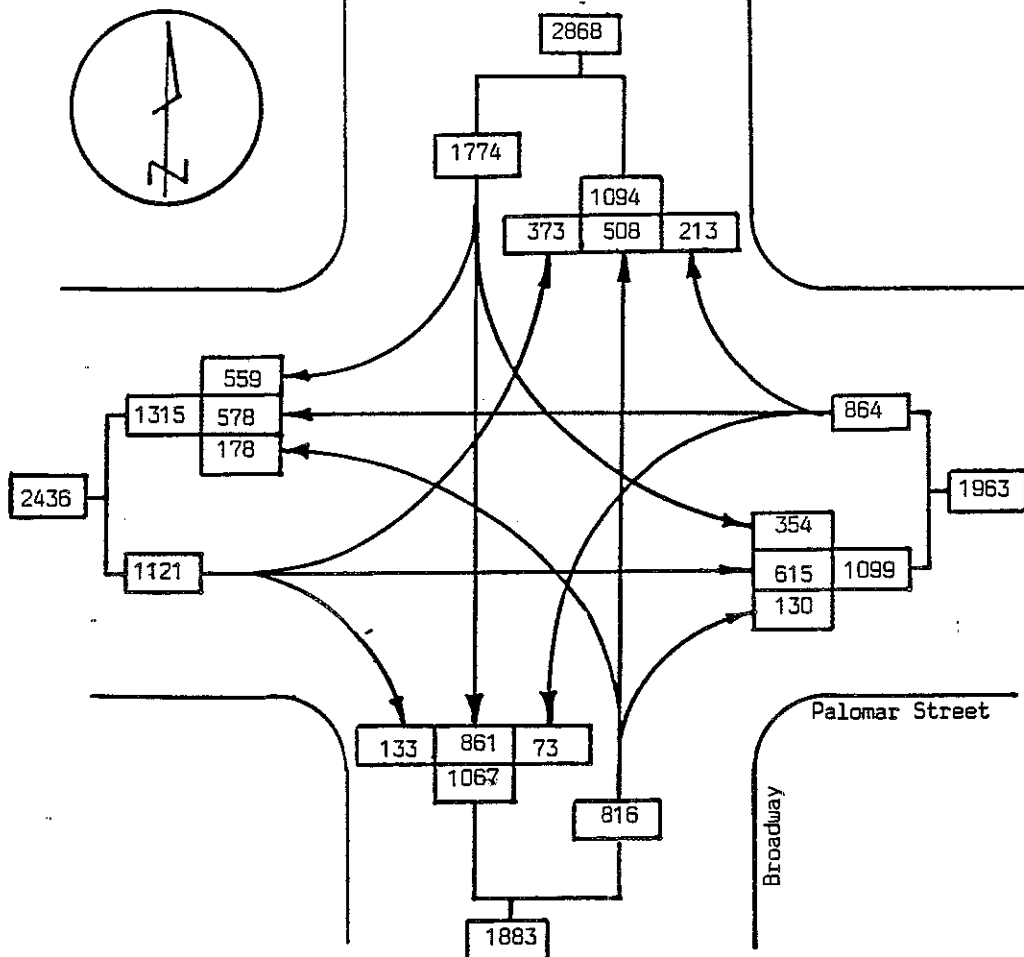
Existing + Project + Approved projects  
 (With access to north and south)

Palomar Street/Industrial Boulevard

Figure A - 8



**WILLDAN ASSOCIATES**



ICU ANALYSIS

E/B Palomar Street	1 left, 2 through, 1 right
W/B Palomar Street	1 left, 1 through, 1 through + right
N/B Broadway	1 left, 2 through, 1 right
S/B Broadway	1 left, 2 through, 1 right

$$\frac{578 + 213}{3400} + \frac{373}{1500} + \frac{861}{3400} + \frac{178}{1500}$$

$$.23 + .25 + .25 + .12 = .85 \text{---LOS D}$$

Improve E/B Palomar Street to accommodate dual left turns

$$\frac{578 + 213}{3400} + \frac{373}{3000} + \frac{861}{3400} + \frac{178}{1500}$$

$$.23 + .12 + .25 = .60 = .72 \text{---LOS C}$$

Existing + Project + Approved Projects  
(Access to Palomar Street only)

PM Peak Hour

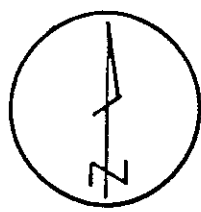
Figure A - 9

Palomar Street/Broadway

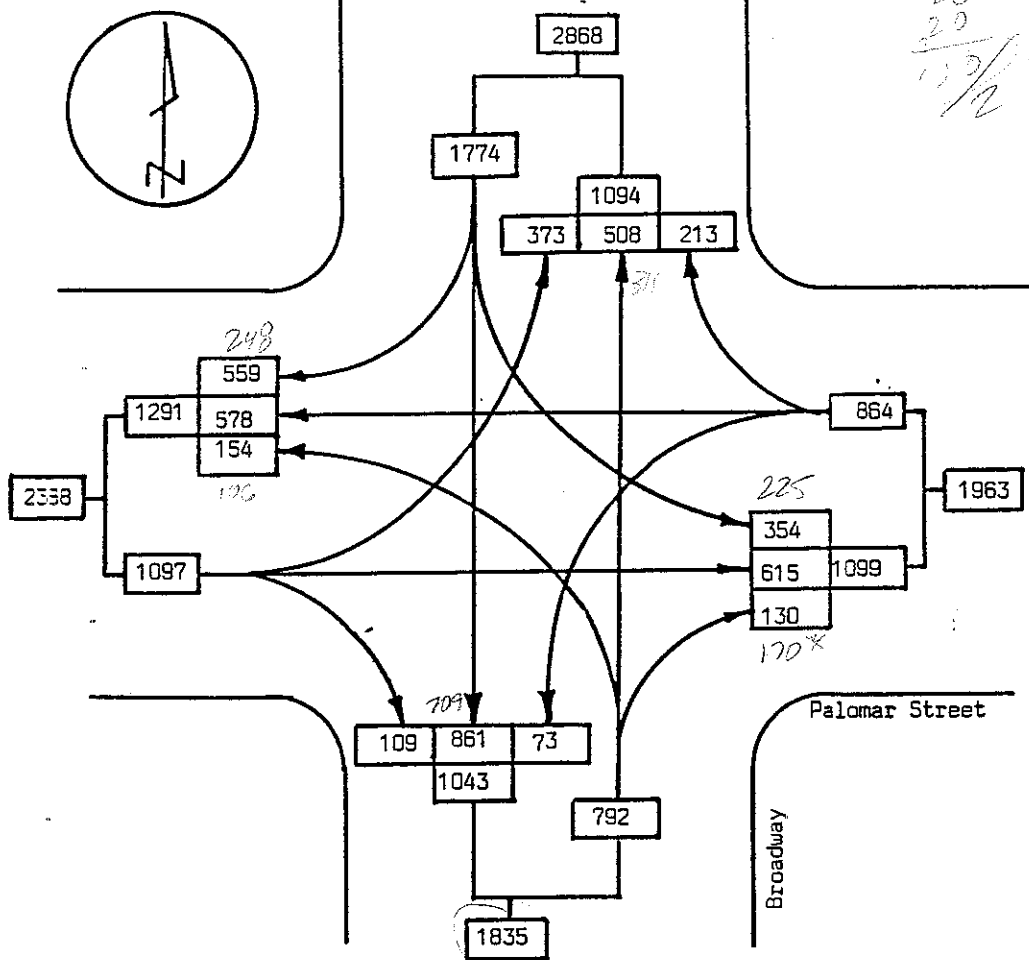


WILLDAN ASSOCIATES





19  
23  
20  
130/2 = 65  
2



ICU ANALYSIS

- E/B Palomar Street 1 left, 2 through, 1 right
- W/B Palomar Street 1 left, 1 through, 1 through + right
- N/B Broadway 1 left, 2 through, 1 right
- S/B Broadway 1 left, 2 through, 1 right

\* 1990

ofy Brnd  
65<sup>2</sup>

$$\frac{578 + 213}{3400} + \frac{373}{1500} + \frac{861}{3400} + \frac{154}{1500}$$

$$.23 + .25 + .25 + .10 = .83 \text{ ----LOS D}$$

Improve E/B Palomar Street to accommodate dual left turns

$$\frac{578 + 213}{3400} + \frac{373}{3000} + \frac{861}{3400} + \frac{154}{1500}$$

$$.23 + .12 + .25 + .10 = .70 \text{ ----LOS B}$$

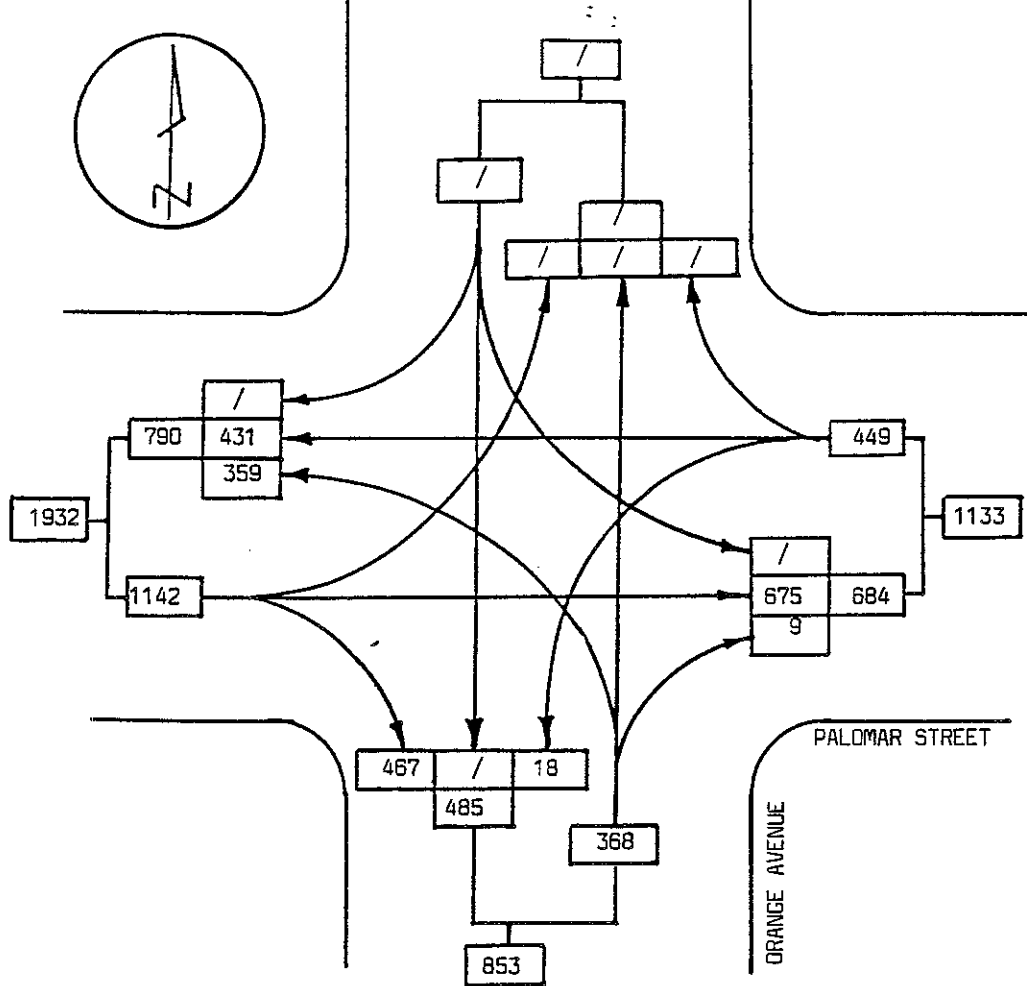
Existing + Project + Approved Projects  
(With access to north + south)

PM Peak Hour

Figure A - 10

Palomar Street/Broadway





ICU ANALYSIS

E/B Palomar Street  
 W/B Palomar Street  
 N/B Orange Avenue

2 through, 1 right  
 1 left, 2 through  
 2 left, 1 right

$$\frac{675}{3400} + \frac{18}{1500} + \frac{359}{3000}$$

$$.20 + .10(\text{min}) + .12 = .42\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

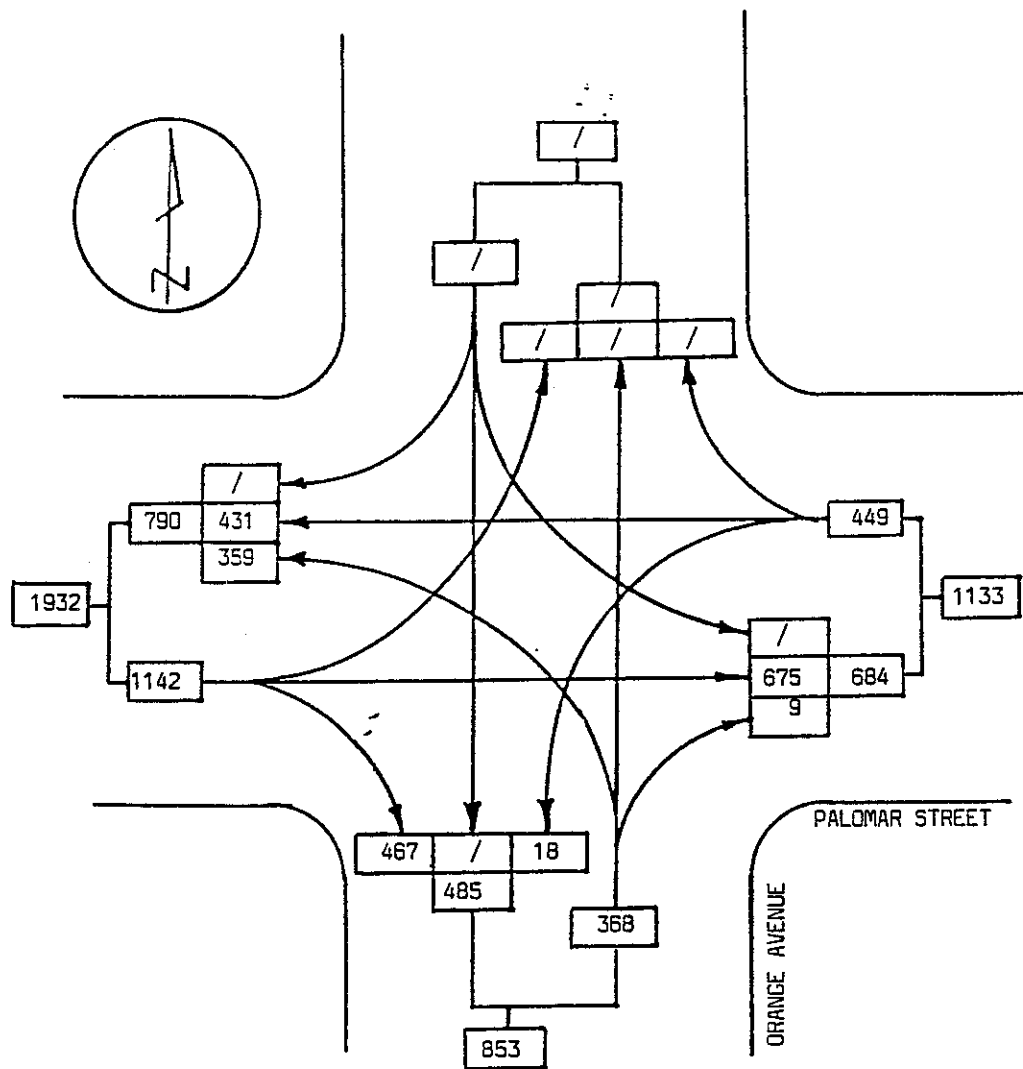
PM PEAK HOUR

FIGURE A - 11

PALOMAR STREET/ORANGE AVENUE  
 (ACCESS TO PALOMAR STREET ONLY)



WILLDAN ASSOCIATES



ICU ANALYSIS

E/B Palomar Street  
 W/B Palomar Street  
 N/B Orange Avenue

2 through, 1 right  
 1 left, 2 through  
 2 left, 1 right

$$\frac{675}{3400} + \frac{18}{1500} + \frac{359}{3000}$$

$$.20 + .10(\text{min}) + .12 = .42\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

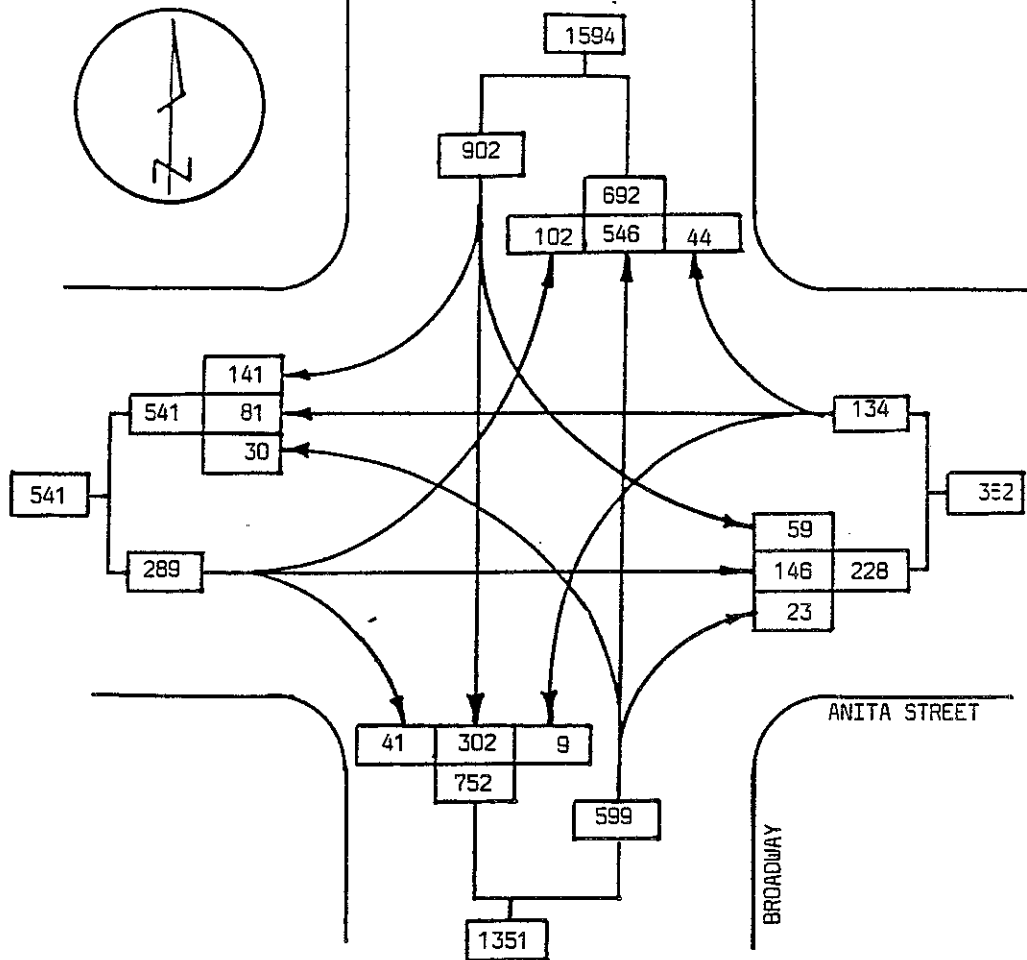
PM PEAK HOUR

FIGURE A - 12

PALOMAR STREET/ORANGE AVENUE  
 (WITH ACCESS ASSUMED NORTH AND SOUTH)



WILLDAN ASSOCIATES



ICU ANALYSIS

N/B Broadway	1 left, 1 through, 1 through + right
S/B Broadway	1 left, 2 through, 1 free right
E/B Anita Street	1 left, 1 through + right
W/B Anita Street	1 left, 1 through + right

$$\frac{702}{3400} + \frac{30}{1500} + \frac{146 + 41}{1700} + \frac{9}{1500}$$

$$.21 + .10(\text{min}) + .11 + .10(\text{min}) = .52\text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

PM PEAK HOUR

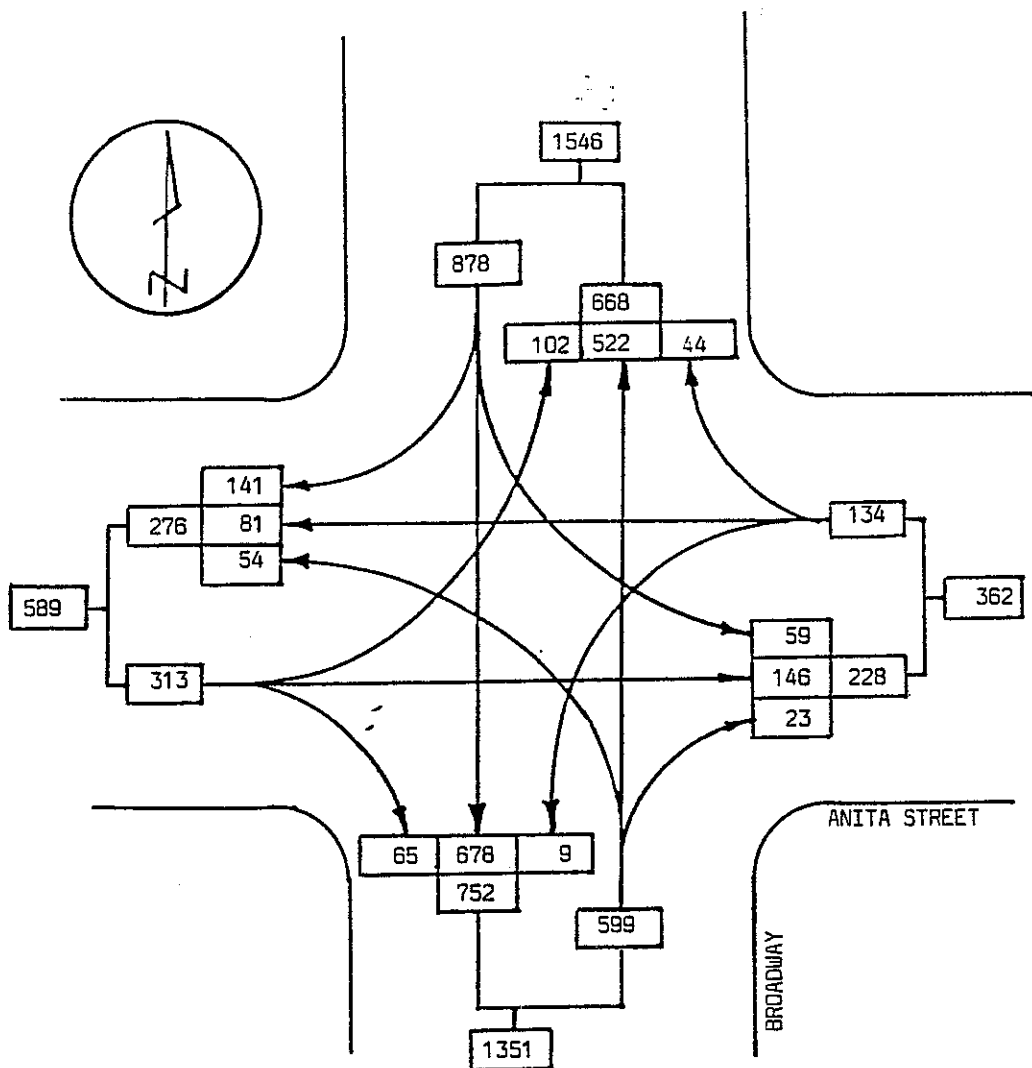
FIGURE A - 13

BROADWAY/ANITA STREET

(ACCESS TO PALOMAR STREET ONLY)



WILLDAN ASSOCIATES



ICU ANALYSIS

N/B Broadway 1 left, 1 through, 1 through + right  
 S/B Broadway 1 left, 2 through, 1 free right  
 E/B Anita Street 1 left, 1 through + right  
 W/B Anita Street 1 left, 1 through + right

$$\frac{678}{3400} + \frac{54}{1500} + \frac{146 + 65}{1700} + \frac{9}{1500}$$

$$.20 + .10(\text{min}) + .12 + .10(\text{min}) = .52 \text{---LOS A}$$

EXISTING + PROJECT + APPROVED PROJECTS

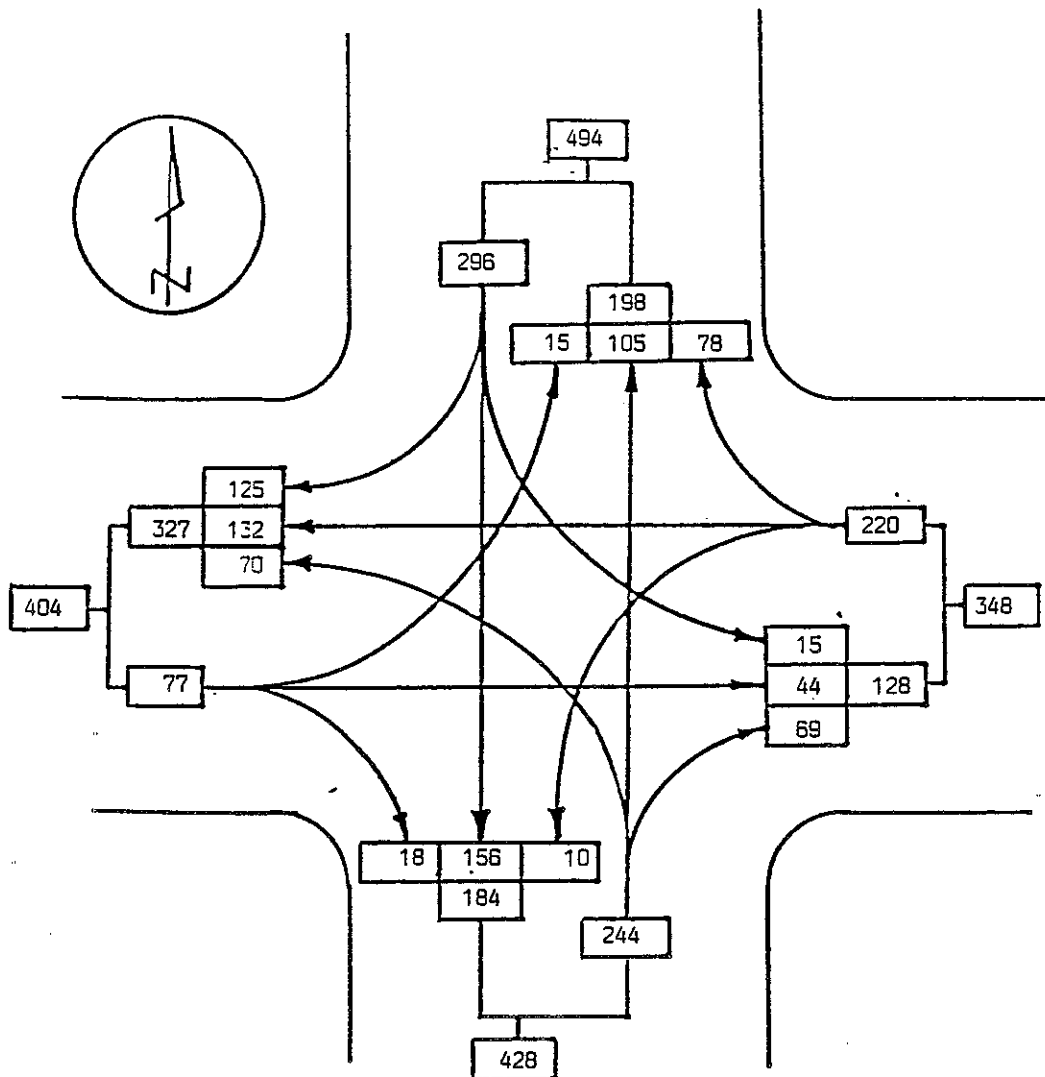
PM PEAK HOUR

FIGURE A - 14

BROADWAY/ANITA STREET  
 (ACCESS ASSUMED NORTH AND SOUTH)



**WILLDAN ASSOCIATES**



4-WAY STOP ANALYSIS

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

$$296 + 77 + 244 + 220 = 837 \text{---LOS B}$$

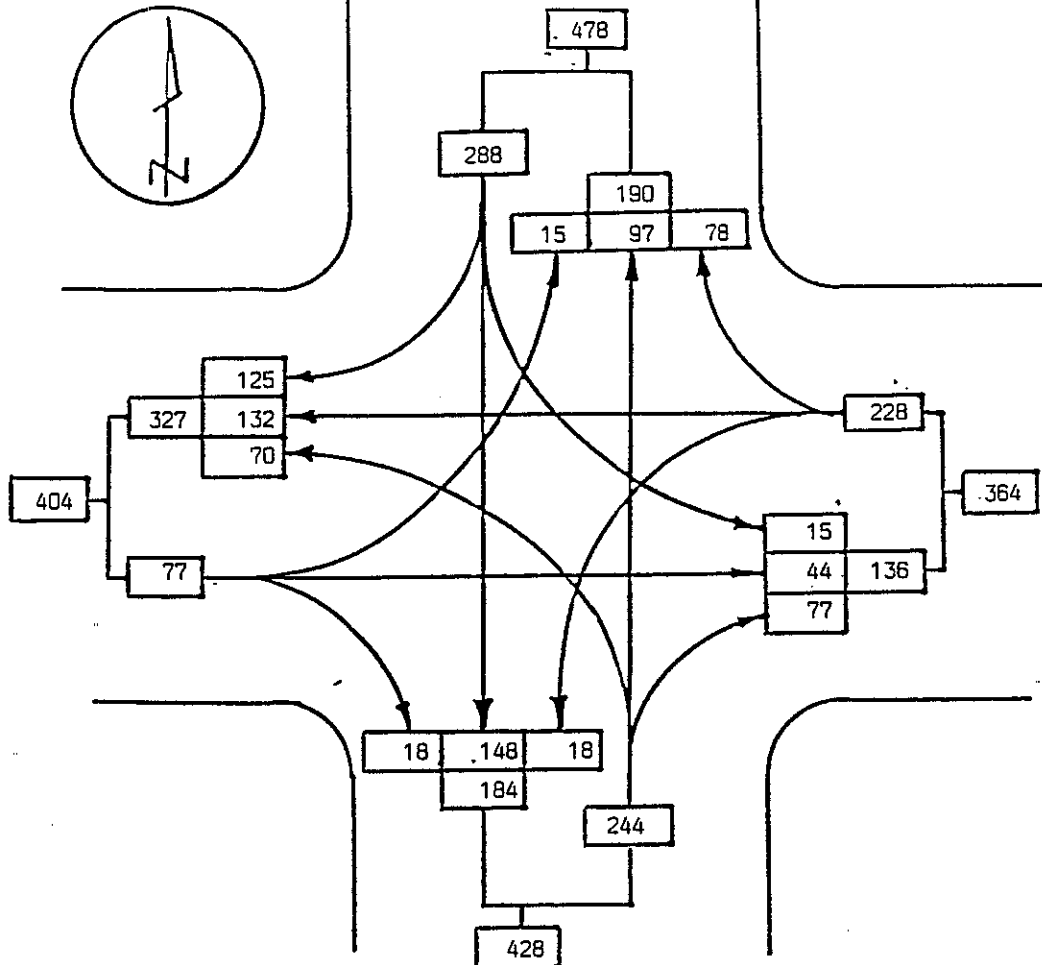
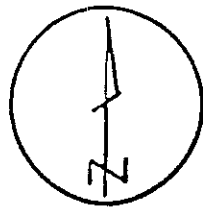
EXISTING + PROJECT + APPROVED PROJECTS

PM PEAK HOUR

FIGURE A - 15

INDUSTRIAL BOULEVARD/ANITA STREET  
(ACCESS TO PALOMAR STREET ONLY)





4-WAY STOP ANALYSIS

TABLE 10-5. CAPACITY OF A TWO-BY-TWO LANE FOUR-WAY STOP-CONTROLLED INTERSECTION FOR VARIOUS DEMAND SPLITS

DEMAND SPLIT	CAPACITY* (VPH)
50/50	1,900
55/45	1,800
60/40	1,700
65/35	1,600
70/30	1,500

\* Total capacity, all legs.  
SOURCE: Ref. 9

TABLE 10-7. APPROXIMATE LEVEL-OF-SERVICE C SERVICE VOLUMES FOR FOUR-WAY STOP-CONTROLLED INTERSECTIONS

DEMAND SPLIT	LOS C SERVICE VOLUME, VPH		
	NUMBER OF LANES		
	2 BY 2	2 BY 4	4 BY 4
50/50	1,200	1,800	2,200
55/45	1,140	1,720	2,070
60/40	1,080	1,660	1,970
65/35	1,010	1,630	1,880
70/30	960	1,610	1,820

SOURCE: Ref. 10

$$288 + 77 + 244 + 228 = 837 \text{----LOS B}$$

EXISTING + PROJECT + APPROVED PROJECTS

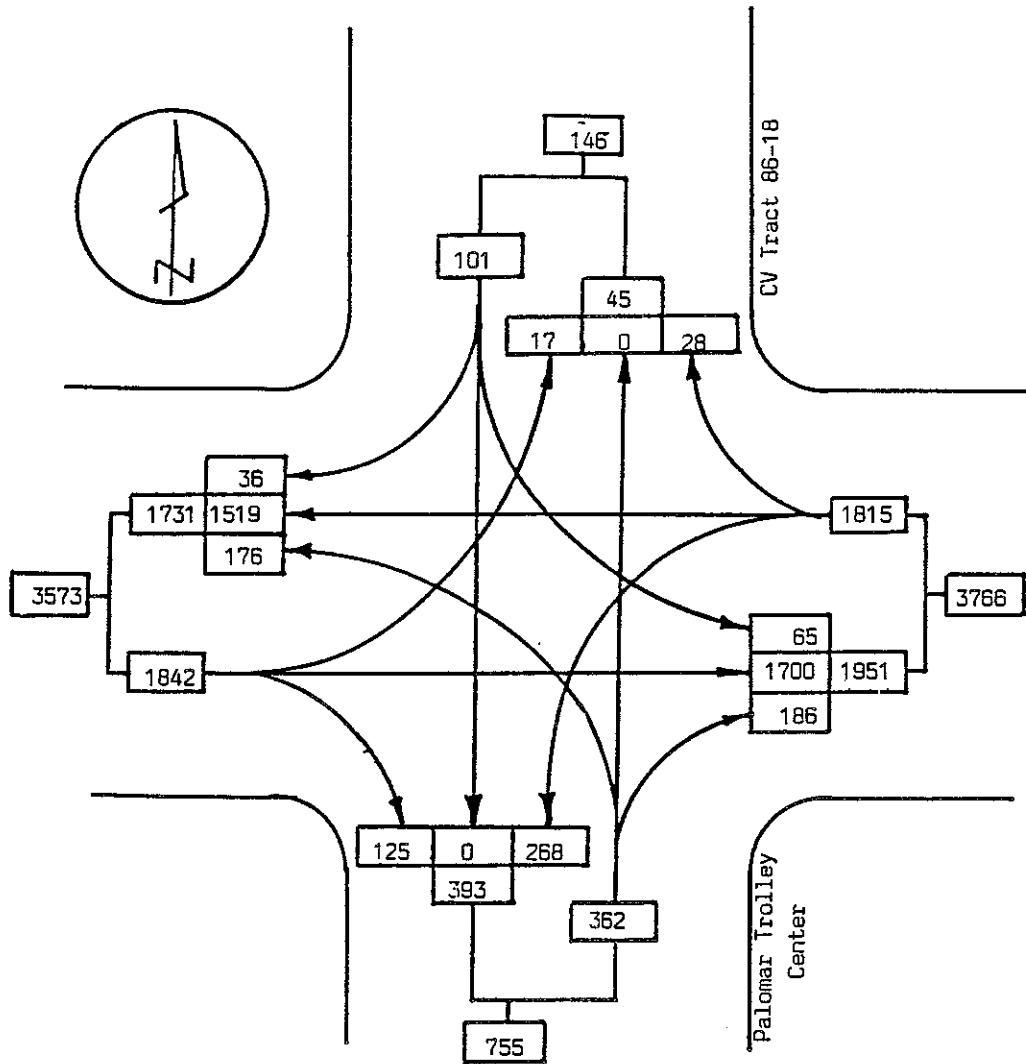
INDUSTRIAL BOULEVARD/ANITA STREET  
(ACCESS ASSUMED NORTH AND SOUTH)

AM PEAK HOUR

FIGURE A - 16



WILLDAN ASSOCIATES



Palomar Street 1 left + 2 thru  
 Shop Center Access 1 left/thru + 1 right

$$\frac{1700}{3400} + \frac{268}{1500} + \frac{176 + 36}{1500} =$$

$$.50 + .18 + .14 = .82 \text{---LOS D}$$

Improve W/B Palomar Street to accommodate a dual left turn lane

$$\frac{1700}{3400} + \frac{268}{3000} + \frac{176 + 36}{1500}$$

$$.50 + .10(\text{min}) + .14 = .74 \text{----LOS C}$$

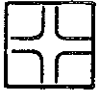
EXISTING + PROJECT + APPROVED PROJECTS  
 PALOMAR STREET/PROJECT ENTRY  
 (PALOMAR STREET ACCESS ONLY)

Figure A - 17





Unsignalized Intersection Capacity Calculation Form



Intersection \_\_\_\_\_

Location Plan:

**D**  
CV Tract 86-18

Counts:

Date \_\_\_\_\_

Day \_\_\_\_\_

Time \_\_\_\_\_

Control \_\_\_\_\_

Prevailing Speed \_\_\_\_\_

A (E/B Palomar)

(W/B Palomar) B

(Trolley Sta)  
**C**

Hourly Demand Traffic Volumes from \_\_\_\_\_ to \_\_\_\_\_, \_\_\_\_\_ m

Approach	A ←			B →			C ↓			D ↑		
Movement	A <sub>L</sub> ↙	A <sub>T</sub> →	A <sub>R</sub> ↘	B <sub>L</sub> ↙	B <sub>T</sub> ←	B <sub>R</sub> ↘	C <sub>L</sub> ↙	C <sub>T</sub> ↑	C <sub>R</sub> ↘	D <sub>L</sub> ↙	D <sub>T</sub> ↓	D <sub>R</sub> ↘
Volume	3	901	22	37	844	5	75	3	28	12	0	5
pch (see Table 1)												

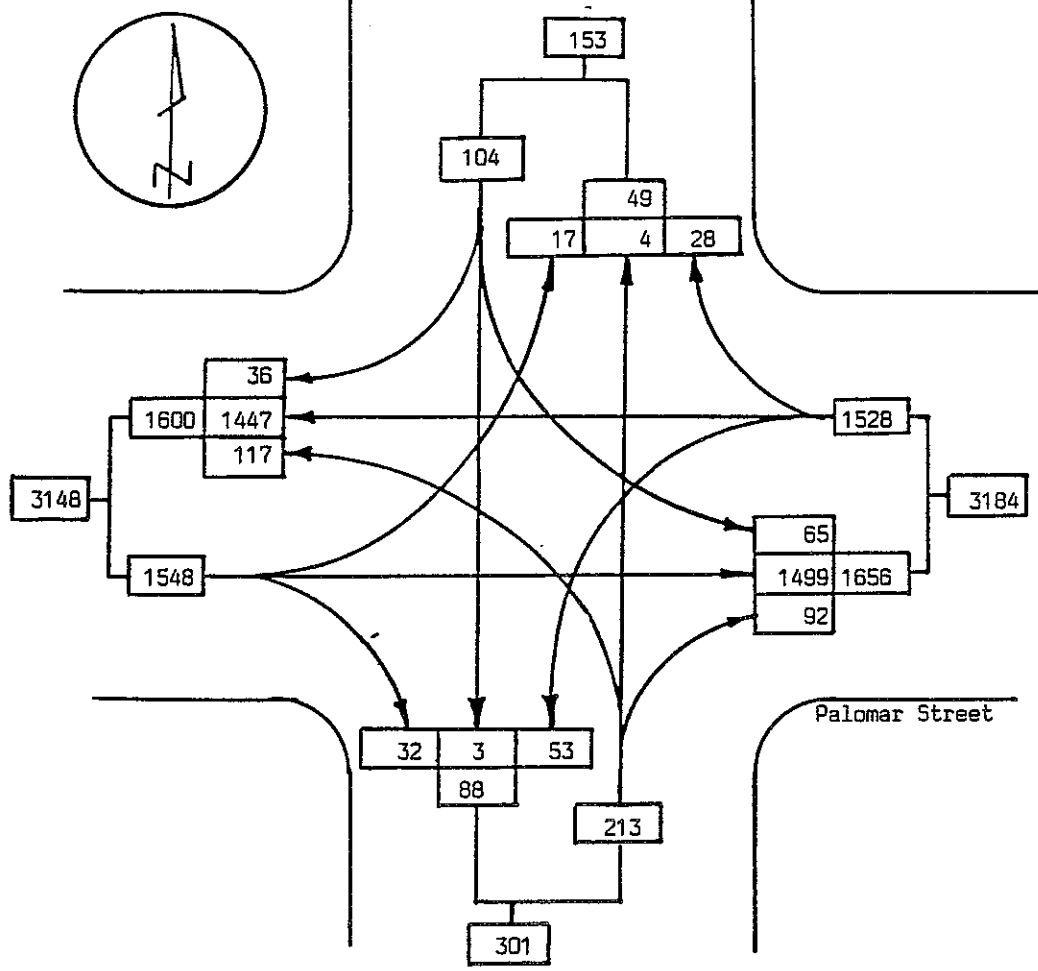
<p><b>Step 1 Right Turn from C/D</b></p> <p>Conflicting Flows = <math>M_H =</math> (from Fig. 1)</p> <p>Critical Gap from Table 2 <math>T_p =</math> Capacity from Fig. 2 =</p> <p>Demand =</p> <p>Capacity Used =</p> <p>Impedance Factor from Fig. 3 =</p> <p>Shared Lane - See Step 3</p> <p>X No Shared Lane - Available Reserve Delay &amp; Level of Service (Table 3)</p>	<p><b>C<sub>R</sub> ↘</b></p> $\frac{1}{2} A_R + A_T = \frac{11}{6.0} + \frac{901}{6.0} = \frac{912}{6.0} \text{ vph}$ $M_{No} = M_1 = \frac{310}{28} \text{ pch}$ $100 (C_R/M_1) = \frac{9.00}{.92} \%$ $P_1 = .92$	<p><b>D<sub>R</sub> ↘</b></p> $\frac{1}{2} B_R + B_T = \frac{2}{6.0} + \frac{844}{6.0} = \frac{846}{6.0} \text{ vph}$ $M'_{No} = M'_1 = \frac{340}{5} \text{ pch}$ $100 (D_R/M'_1) = \frac{1.15}{.99} \%$ $P'_1 = .99$
	$M_1 - C_R = 282 \text{ pch}$	$M'_1 - D_R = 335 \text{ pch}$
<p><b>Step 2 Left Turn from B/A</b></p> <p>Conflicting Flows = <math>M_H =</math> (from Fig. 1)</p> <p>Critical Gap from Table 2 <math>T_p =</math> Capacity from Fig. 2 =</p> <p>Demand =</p> <p>Capacity Used =</p> <p>Impedance Factor from Fig. 3 =</p> <p>Available Reserve =</p> <p>Delay &amp; Level of Service (Table 3)</p>	<p><b>B<sub>L</sub> ↙</b></p> $\frac{A_R + A_T}{5.5} = \frac{22}{5.5} + \frac{901}{5.5} = \frac{923}{5.5} \text{ vph}$ $M_{No} = M_2 = \frac{370}{37} \text{ pch}$ $100 (B_L/M_2) = \frac{10.0}{.91} \%$ $P_2 = .91$ $M_2 - B_L = 333 \text{ pch}$	<p><b>A<sub>L</sub> ↙</b></p> $\frac{B_R + B_T}{5.5} = \frac{5}{5.5} + \frac{844}{5.5} = \frac{849}{5.5} \text{ vph}$ $M'_{No} = M'_2 = \frac{390}{3} \text{ pch}$ $100 (A_L/M'_2) = \frac{.08}{.100} \%$ $P'_2 = .100$ $M'_2 - A_L = 387 \text{ pch}$
	$M_2 - B_L = 333 \text{ pch}$	$M'_2 - A_L = 387 \text{ pch}$
<p><b>Step 3 Thru Movement from C/D</b></p> <p>Conflicting Flows = <math>M_H =</math> (from Fig. 1)</p> <p>(<math>M_T</math> &amp; <math>M'_T</math> are used in Step 4)</p> <p>Critical Gap from Table 2 <math>T_p =</math> Capacity from Fig. 2 =</p> <p>Adjust for Impedance</p> <p>Demand =</p> <p>Capacity Used =</p> <p>Impedance Factor from Fig. 3</p>	<p><b>C<sub>T</sub> ↑</b></p> $\frac{1}{2} A_R + A_T + A_L + B_L + B_T + B_R}{7.5} = \frac{11 + 901 + 3 + 37 + 844 + 5}{7.5} = \frac{1801}{7.5} \text{ vph}$ $M_{No} = M_T = \frac{40}{36} \text{ pch}$ $M_{No} \times P_2 \times P'_2 = M_3 = \frac{36}{3} \text{ pch}$ $100 (C_T/M_3) = \frac{8.33}{.94} \%$ $P_3 = .94$	<p><b>D<sub>T</sub> ↓</b></p> $\frac{1}{2} B_R + B_T + B_L + A_L + A_T + A_R}{7.5} = \frac{2 + 844 + 37 + 3 + 901 + 22}{7.5} = \frac{1809}{7.5} \text{ vph}$ $M'_{No} = M'_T = \frac{40}{36} \text{ pch}$ $M'_{No} \times P'_2 \times P_2 = M'_3 = \frac{36}{0} \text{ pch}$ $100 (D_T/M'_3) = \frac{0}{100} \%$ $P'_3 = 100$
	$M_3 = \frac{36}{3} \text{ pch}$	$M'_3 = \frac{36}{0} \text{ pch}$

Unsignalized Intersection Capacity Calculation Form (continued)



Step 3 (Continued)	$C_T \uparrow$	$D_T \downarrow$
_____ No Shared Lane Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$M_3 - C_T =$ _____ pch <input type="checkbox"/>	$M'_3 - D_T =$ _____ pch <input type="checkbox"/>
<u>y</u> Shared Lane with Left Turn See Step 4		
_____ Shared Lane Demand = _____ _____ Shared Lane with Right Turn Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_R + C_T = C_{RT} =$ _____ pch $M_{13} = \frac{(C_R + C_T)}{(C_R/M_1) + (C_T/M_3)}$ $M_{13} =$ _____ pch $M_{13} - C_{RT} =$ _____ pch <input type="checkbox"/>	$D_R + D_T = D_{RT} =$ _____ pch $M'_{13} = \frac{(D_R + D_T)}{(D_R/M'_1) + (D_T/M'_3)}$ $M'_{13} =$ _____ pch $M'_{13} - D_{RT} =$ _____ pch <input type="checkbox"/>
<b>Step 4</b> Left Turn from C/D	$C_L \curvearrowright$	$D_L \curvearrowleft$
_____ Conflicting Flows = $M_N =$ _____ ( $M_T$ & $M'_T$ were calculated in Step-3) Critical Gap from Table 2 $T_p =$ _____ Capacity from Fig. 2 = _____ Adjust for Impedance	$M_T + D_T + D_R =$ _____ $\frac{1801 + 0 + 5}{8 \text{ sec}} = 1806$ vph $M_{No} = \frac{40}{8} = 40$ pch $M_{No} \times P_2 \times P'_2 \times P'_1 \times P'_3 = M_4$ $M_4 = 37$ pch	$M'_T + C_T + C_R =$ _____ $\frac{1809 + 3 + 28}{8 \text{ sec}} = 1840$ vph $M'_{No} = \frac{40}{8} = 40$ pch $M'_{No} \times P_2 \times P_2 \times P_1 \times P_3 = M'_4$ $M'_4 = 33$ pch
_____ No Shared Lane Demand = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_L =$ _____ pch $M_4 - C_L =$ _____ pch <input type="checkbox"/>	$D_L =$ _____ pch $M'_4 - D_L =$ _____ pch <input type="checkbox"/>
<u>X</u> Shared Lane Demand = _____ Shared Lane with Thru Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_T + C_L = C_{TL} = 78$ pch $M_{34} = \frac{(C_T + C_L)}{(C_T/M_3) + (C_L/M_4)}$ $M_{34} = 37$ pch $M_{34} - C_{TL} = 0$ pch <input type="checkbox"/>	$D_T + D_L = D_{TL} = 12$ pch $M'_{34} = \frac{D_T + D_L}{(D_T/M'_3) + (D_L/M'_4)}$ $M'_{34} = 47$ pch $M'_{34} - D_{TL} = 35$ pch <input type="checkbox"/>
_____ Shared Lane Demand = _____ _____ Shared Lane with Thru & Right Capacity of Shared Lane = _____ Available Reserve = _____ Delay & Level of Service (Table 3) <input type="checkbox"/>	$C_R + C_T + C_L = C_{RTL} =$ _____ pch $M_{134} = \frac{C_R + C_T + C_L}{(C_R/M_1) + (C_T/M_3) + (C_L/M_4)}$ $M_{134} =$ _____ pch $M_{134} - C_{RTL} =$ _____ pch <input type="checkbox"/>	$D_R + D_T + D_L = D_{RTL} =$ _____ pch $M'_{134} = \frac{D_R + D_T + D_L}{(D_R/M'_1) + (D_T/M'_3) + (D_L/M'_4)}$ $M'_{134} =$ _____ pch $M'_{134} - D_{RTL} =$ _____ pch <input type="checkbox"/>

Overall Evaluation Overall LOS is C but there will be long delays for left turns from the Trolley Station



ICU ANALYSIS

- E/B Palomar Street                    1 left, 2 through, 1 right
- W/B Palomar Street                   1 left, 1 through, 1 through + right
- N/B Trolley Station                   1 left + through, 1 right
- S/B CV 86-18                           1 left + through, 1 right

$$\frac{1499}{3400} + \frac{53}{1500} + \frac{117 + 4}{1500} + \frac{65 + 3}{1500} =$$

$$.44 + .10(\text{min}) + .10(\text{min}) + .10(\text{min}) = .74 \text{----LOS C}$$

EXISTING + CURRENT ZONING + APPROVED PROJECTS  
 PALOMAR STREET/TROLLEY STATION

PM PEAK HOUR  
 (4:45 - 5:45)  
 5/5/88

FIGURE A - 20



# jhk & associates

---

January 5, 1989

Mr. Phillip Hinshaw  
A.D. Hinshaw Associates  
6136 Mission Gorge Road, Suite 111  
San Diego, California 92120

Re: JHK & Associates Review of the Palomar Trolley Center  
Traffic Analysis by Willdan Associates (Project 7535)

Dear Mr. Hinshaw:

JHK & Associates is pleased to submit this Letter Report documenting our review of the Traffic Analysis for the Palomar Trolley Center that was conducted by Willdan Associates (October 14, 1988) for Pacific Scene, Inc. The traffic analysis by Willdan Associates identified existing conditions, generated, distributed, and assigned project trips onto the street system, and evaluated the impact of this additional traffic. Potential adverse traffic related impacts were identified and mitigation measures recommended.

The methodology and analysis procedures used in the Palomar Trolley Center Report were reviewed and the results verified for accuracy. The expected impacts on the circulation system and the recommended mitigation measures were also reviewed to ensure that all relevant transportation issues were addressed in sufficient detail. The analysis procedures and results were found to be accurate and the mitigation measures sufficiently addressed the adverse impacts of the proposed project. Additional recommendations made by JHK after reviewing this report are based primarily on roadway classification standards contained in the newly developed Circulation Element for the City of Chula Vista.

We hope that the information presented in this report adequately addresses the needs of the Environmental Impact Report. JHK & Associates would be pleased to do any additional work that your firm or the City of Chula Vista feels is necessary to supplement this report. If you have any questions or comments regarding this report, please

**PROJECT SETTING**

The proposed shopping center is located south of Palomar Street and east of the Palomar Street Trolley Station. The project site is currently vacant with surrounding land use consisting of commercial and light industrial businesses. The project proposes four points of access from Palomar Street with the main access driveway centrally located opposite the driveway to the shopping center on the north side of Palomar Street. The project proposes to relocate the existing traffic signal at the entrance to the Palomar Trolley Station to this central driveway.

To further define the current status of the circulation system in the vicinity of the proposed Palomar Trolley Center project, JHK investigated the classification of study area streets which are included in the City of Chula Vista Circulation Element. Also, JHK reviewed the relationship of existing volumes to recommended capacity levels on these facilities as detailed in the Willdan Associates report. It is important to note that the review conducted by JHK incorporated the most recent actions by the City of Chula Vista Department of Public Works' engineering staff in regard to the newly developed Circulation Element plan and standards. This information was not available to the Willdan Associates project team during the formulation of the traffic analysis for Palomar Trolley Center, dated October 14, 1988. Thus, for informational purposes, this JHK document highlights the major modifications to the Circulation Element standards and details how these new standards affect the assumptions and conclusions contained in the Willdan Associates report.

The draft version of the proposed City of Chula Vista Circulation Element has been approved by staff and is included in the Draft General Plan. The entire General Plan document will

undergo public review during the first six months of 1989 and the Final General Plan should be adopted by the City Council by the end of 1989.

**Access and Circulation**

Regional access to the site will be provided by Interstate 5 via its diamond interchange with Palomar Street. Interstate 5 is an eight lane freeway providing north/south circulation through the coastal region of western San Diego County. Local access near the project site will be provided by Palomar Street, Broadway, Industrial Boulevard, Anita Street, and Orange Avenue. Palomar Street near the project site is classified as a four lane major road in the Willdan Associates report, however based on our review of the roadway classification standards contained in the new Circulation Element for the City of Chula Vista this section of Palomar Street should be classified as a Class I Collector based on its existing cross section/configuration. This discrepancy is due to the fact that the Circulation Element standards were not in effect at the time of the Willdan Associates report. It is also important to note that the new Circulation Element plan classifies the segment of Palomar Street between Interstate 5 and Broadway as a six-lane Major Street in the future. Broadway and Orange Avenue are classified as a four lane Major Streets, and Industrial Boulevard and Anita Street are classified as Class III Collector Streets according to the new Circulation Element standards and the Willdan Associates report.

**Existing Roadway Capacity Review**

All roadway segments in the project vicinity operate at Level of Service (LOS) C or better under existing conditions according to the Willdan Associates report. However, the roadway capacity standards used for the Willdan Associates report differ from the new standards developed for the City of Chula Vista Circulation

Element. The standards used in the Willdan Associates report were approved by City of Chula Vista staff, thus, it appears that this discrepancy is due primarily to the Willdan Associates study being conducted in the interim period before the new Circulation Element standards were officially in effect.

Based on the JHK & Associates review of existing segment volumes utilizing standards in the new Circulation Element, Palomar Street, between Interstate 5 and Broadway, is operating below LOS C. The approximate Average Daily Traffic (ADT) volume for LOS C operating conditions on the newly developed Circulation Element are shown in the following table.

**ROADWAY CAPACITY STANDARDS**

<u>Facility Type</u>	<u># of Lanes</u>	<u>Approx. LOS C ADT</u>
Expressway	6	70,000
Six-Lane Prime Arterial	6	50,000
Six-Lane Major Street	6	40,000
Four-Lane Major Street	4	30,000
Class I Collector	4	22,000
Class II Collector	2	12,000
Class III Collector	2	7,500

Based on a review of the existing segment volumes in the study area JHK & Associates prepared an additional table which indicates the classification of study area streets and details the relationship of existing volumes to the roadway capacities listed in the previous Circulation Element Roadway Capacity table.



**EXISTING STUDY AREA SEGMENT VOLUMES**

<u>Study Area Streets</u>	<u>Facility Type</u>	<u>Existing Volume</u>	<u>Relationship to Capacity</u>
Palomar Street	Class I	28,200	Over
Anita Street	Class III	4,200	Under
Main Street	Class I	20,100	Under
Industrial Boulevard	Class III	7,100	Under
Broadway	Four-Lane Major Street	25,800	Under

Major intersections in the study area analyzed for this project include Palomar Street/Industrial Boulevard, Palomar Street/Project Entry, Palomar Street/Trolley Station Entry, Palomar Street/Broadway, Palomar Street/Orange Avenue, Broadway/Anita Street, and Industrial Boulevard/Anita Street. All of these are signalized intersections except the Industrial Boulevard/Anita Street intersection, which is under four-way stop control. The intersection of Palomar Street/Industrial Boulevard currently operates at LOS F, while all other intersection operate at LOS C or better.

The proposed project site is well served by public transit. The San Diego Trolley provides service between downtown San Diego and the International border during both peak and off-peak commute periods. San Diego Transit Local Route 32 provides service along Broadway with connection to the H Street Trolley Station. Chula Vista Local Route 702 serves Palomar Street and provides connection to the H Street Trolley Station.

A vicinity map, site plan, existing ADT volumes for all roadway segments in the study area, existing turning movement volumes for all major intersections in the study area, and other

pertinent information on existing conditions is contained in the Willdan Associates report.

#### REVIEW OF TECHNICAL ANALYSIS AND IMPACTS

In addition to the proposed Palomar Trolley Center, two recently approved projects specified by the City of Chula Vista were also included in the analysis. These two projects are the Palomar Street Home Club and the Chula Vista Home Club. A traffic study was conducted for the Palomar Street Home Club by J. Federhart & Associates (4/30/87) and a traffic study was conducted for the Chula Vista Home Club by Linscott, Law, and Greenspan (10/20/88). These projects included space for commercial shops, retail shops, light industrial use, and fast food restaurants. It is important to note that the Willdan Associates analysis report also included development of the Palomar Trolley Center project site assuming the current light industrial zoning.

In order to evaluate the impacts of the proposed project and the cumulative development impacts of the approved projects, the number of trips expected to be generated by the proposed and approved projects was determined. These trips were then distributed and assigned to the existing roadway network and capacity analyses conducted for critical segments and intersections to determine the impacts of the additional traffic.

#### Trip Generation

The trip generation rates used in the analysis were developed by various agencies, including the Institute of Transportation Engineers, and summarized in the San Diego Association of Governments (SANDAG) Traffic Generators Manual. These trip generation rates and calculations were verified by JHK in the review of the Willdan Associates report. The proposed project is expected to generated 6,248 vehicles per day with 626 vehicles in

the PM peak hour. The approved projects are projected to generate 13,200 vehicles per day with 1,275 vehicles in the PM peak hour. The project site under current light industrial zoning conditions is expected to generate 1,100 vehicles per day with 132 vehicles in the PM peak hour under current light industrial zoning.

### Trip Distribution And Assignment

The trip distribution assumptions, detailed in the Willdan Associates report, for the proposed Palomar Trolley Center project were derived from the Chula Vista Home Club Traffic Study (J. Federhart & Associates, 12-19-87 and 4-30-87). This distribution was based on a select zone assignment for the project zone performed by SANDAG. The trip distribution and assignment for each of the approved projects was also done according to their respective Traffic Studies. The trip distribution process using the assumed trip distribution obtained from SANDAG was also verified by JHK & Associates.

The distribution percentages shown in Figure 4, of the Willdan Associates report calls for a split of 40% of the trips to and from the west and 60% of the trips to and from the east. This distribution of project generated trips impacts the Levels of Service for roadway segments and intersections within the study area. A full discussion of the impact of this distribution of project generated traffic is contained in the following capacity analysis sections.

### Capacity Analysis - Roadway Segments

Capacity analyses were conducted for critical roadway segments and intersections in the study area to determine the impacts of the additional traffic generated by the proposed and approved projects. The analyses were conducted for the PM peak hour since it is considered to be the critical time period due to the commercial

land use in the study area. Capacity analyses were also conducted assuming that access was provided south of the project site to Anita Street via Jayken Way. The results of the analyses with and without this Jayken Way connection were similar.

Palomar Street would operate at LOS E according to the Willdan Associates report (as shown on Table 4, p.15) and at LOS F according to the standards in the new Circulation Element under existing plus project plus approved project conditions. These Levels of Service would occur as a result of the trip distribution pattern described in the previous section. Broadway north of Palomar would operate at LOS E under existing plus project plus approved project conditions according to both the Willdan Associates report and the Circulation Element standards. All other roadway segments would continue to operate at LOS C or better according to the Willdan Associates report. According to the standards in the new Circulation Element, Industrial Boulevard will operate at LOS B north of Palomar Street and at LOS D south of Palomar Street. A determination will need to be made by the City of Chula Vista as to which standards are valid for this project so that developer fees associated with deterioration of Levels of Service on roadways in the project vicinity can be determined.

#### **Capacity Analysis - Study Area Intersections**

The capacity at signalized intersections was evaluated using the Intersection Capacity Utilization (ICU) analysis method. The capacity of the unsignalized intersection at Industrial Boulevard/Anita Street was determined using procedures outlined in the 1985 Highway Capacity Manual. The intersection of Palomar Street/Industrial Boulevard will operate at LOS F and the intersection of Palomar Street/Broadway will operate at LOS D under existing, plus project, plus approved project conditions. All other intersections will operate at LOS C or better. These Levels

of Service would occur if existing geometrics are retained and no mitigation measures are implemented.

The project proposes to relocate the existing traffic signal from the Trolley Station entry to the proposed project main entry access driveway. It is stated in the Willdan Associates report that LOS C will still be maintained at the Trolley Station entry under unsignalized operations. This report also states that LOS C operations will be provided at the proposed project main entry with the traffic signal relocated to this intersection. JHK & Associates recommends that a detailed traffic signal removal analysis be conducted prior to the traffic signal relocation. This removal analysis should fully investigate the following issues.

- Can the required traffic signal removal warrants be met.
- What type of access will be allowed at this Trolley Station intersection with Palomar Street under unsignalized operations.
- Will the new access condition and geometric configuration provide adequate service to the existing Trolley Station Parking Area.
- Will other alternate means of access to the Trolley Station be provided via an access easement through the proposed Palomar Trolley Center development site.

Also included in the Willdan Associates report is an analysis of future intersection Levels of Service in the project vicinity. Table 5 (p.17) summarizes the forecasted LOS for each intersection under future volume conditions with various mitigation measures implemented. Based on the Willdan Associates analysis, the most critical study area intersections are Palomar Street at Industrial Boulevard and Palomar Street at Broadway. If the recommended mitigation measures are implemented, LOS C conditions will result at these intersections while all other intersections operate at LOS B or higher during the critical PM peak hour.

Based on the classification of this segment of Palomar Street in the new Circulation Element (Six-Lane Major Street from Interstate 5 to Broadway) and the daily traffic volumes resulting from the development of this site coupled with volumes from other approved projects (See Figure 7, Willdan Associates report), it is apparent that additional roadway capacity will be required in the near-term. The existing volume level on this section of Palomar Street will rise from approximately 28,200 vehicles per day (vpd) to between 34,700 and 36,900 vpd, based on the traffic generated by the Palomar Trolley Center project and other approved projects in the vicinity. The current LOS C operating capacity of Palomar Street is 22,000 vpd and the capacity of the new six-lane major facility which is planned for this segment is 40,000 vpd. Thus, when the new six-lane roadway cross section is constructed, acceptable Levels of Service will be achieved. Also, the construction of this new cross section may restrict access to the Trolley Station site to right turns in and out only. This restriction will be dictated by the design of a continuous raised median between Industrial Boulevard and the main signalized entrance driveway to the proposed Trolley Center site. Additionally, the traffic signal relocation described previously will provide optimal signal spacing resulting in improved traffic flow along this section of Palomar Street.

Site access, internal circulation, and parking were also reviewed. In addition to the central driveway, three other access points will be provided that are restricted to right-turns in and right-turns out, in conjunction with a raised median on Palomar Street. Internal circulation will be provided by an inner loop road around the shopping center connected by a series of parking aisles. The internal circulation should be re-evaluated when specific plans are made for the proposed restaurant pads on the proposed project site. The project proposes to provide 637 parking spaces, which is consistent with City of Chula Vista zoning requirements for commercial uses.

**REVIEW OF MITIGATION MEASURES**

The following improvements were recommended in the Willdan Associates report to mitigate existing traffic problems or those associated with the traffic generated by the proposed and approved projects and provide acceptable Levels of Service at critical project intersections and along study area streets segments:

- Improve Palomar Street to the Major Street Classification with a raised median.
- Improve the Palomar Street/Industrial Boulevard intersection to provide one left-turn, one through lane, and one right-turn lane with full signal phasing.
- Relocate the traffic signal at the Palomar Street/Trolley Station Entry to the main project entry four-way intersection.
- Provide an internal connection between the proposed project and the Palomar Trolley Station.
- Provide dual left-turn lanes on the westbound approach of the Palomar Street/Main Project Entry intersection.
- Provide dual left-turn lanes on the eastbound approach of the Palomar Street/Broadway intersection. This will result in LOS B under the Willdan Associates report trip distribution assumption (see Appendix A, Figure A-10).
- Conduct detailed site analyses for the individual restaurants at the time of conditional use permit application.

JHK & Associates supports all of the above mentioned mitigation measures. The following comments are made in regard to these mitigation measures:

1. It is recommended that a detailed traffic signal removal analysis be conducted before relocating the traffic signal from the Trolley Station entry to the proposed project entry. This study should analyze signal progression, accident frequency, delay, and fuel consumption, in addition to the capacity of the intersection. JHK & Associates further recommends that right turn in and right turn out access be retained at the Trolley Station intersection. This restricted access will be controlled by the provision of a continuous

raised median extending along Palomar Street between Interstate 5 and Broadway.

Also, the new signalized intersection at the main entrance driveway to the Trolley Center site should be aligned with the existing access driveway located along the north curb line of Palomar Street in this vicinity. The relocation of the traffic signal to the project entry should provide improved signal spacing and the availability of adequate gaps in the traffic stream. A detailed analysis will provide more insight to these unknown factors.

2. It should be noted that when the proposed project improves Palomar Street to Major Street standards, as indicated in the Willdan Associates report, it will still operate at LOS E according to the Roadway Classification Standards contained in the new Circulation Element. This segment of Palomar Street will not operate at LOS C until buildout conditions occur and it is upgraded to a Six-lane Major Street, at which time its capacity would be 40,000 vehicles per day. Thus, it is recommended that six through lanes of capacity be provided along this segment of Palomar Street between Interstate 5 and Broadway to address near term traffic volume increases associated with the Trolley Center project and other projects which have been approved within the study area.
3. No roadway improvements are planned for Broadway, which is projected to operate at LOS E north of Palomar Street. As noted in the Willdan Associates report, it is not feasible to improve Broadway to a Six-lane Major Street, thus it will remain a Four-lane Major Street even as the General Plan improvements are implemented. The recommended improvements to the intersection of Palomar Street/Broadway may help alleviate some of the congestion on this roadway. If the City of Chula Vista determines that LOS E is unsatisfactory on Broadway, with no improvements scheduled for this street, alternative solutions to improve capacity should be investigated. These solutions may include improved geometrics at the intersection of Palomar Street and Broadway to provide additional exclusive turn lanes on all approaches to this intersection.
4. It is strongly recommended that the proposed project provide an internal connection from its parking lot to the existing Trolley Station parking lot. This will provide vehicles leaving the Trolley Station an alternate exit at the signalized intersection at the proposed main project entry and reduce delay at the unsignalized Trolley Station exit if the Trolley Station traffic signal is relocated.
5. As discussed in the Willdan Associates report detailed site analysis for the individual development pads located adjacent



to the south curb line of Palomar Street should be conducted. JHK & Associates further recommends that the total number of access driveways for this site be reviewed by the City of Chula Vista. This review should concentrate on the specific requirements for individual access driveways and the spacing between access driveways on this Trolley Center site as well as the spacing between Trolley Center driveways and driveways serving other developments along the south curb line of Palomar Street.

6. JHK & Associates recommends that a raised median be incorporated into the design of the main entrance driveway serving the Trolley Center site. This on-site raised median should be continuous for a distance of approximately 150 feet south of the signalized intersection at Palomar Street.
7. JHK & Associates recommends that alternate access to this site be provided via Jayken Way to the south. This alternate point of access will provide internal circulation opportunities for vehicles destined to the Trolley Center from Anita Street and the industrial and commercial developments south of the proposed project.

#### CONCLUSION

A review of the Willdan Associates report has found the analysis procedures and results to be accurate. JHK & Associates supports the mitigation measures recommended in the Willdan Associates report in addition to the supplemental comments outlined above. The issues discussed above should be addressed by the City of Chula Vista to ensure that all relevant transportation issues and appropriate mitigation measures have been identified for inclusion in the Environmental Impact Report.



**APPENDIX D**  
**Economic Impact Analysis**

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ECONOMIC IMPACT ANALYSIS FOR  
PALOMAR TROLLEY CENTER

Prepared for:

City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Prepared by:

CIC Research, Inc.  
1215 Cushman Avenue  
San Diego, CA 92110

January 1989



## EXECUTIVE SUMMARY

This report summarizes the findings of a socioeconomic analysis of potential market impacts from development and operation of Palomar Trolley Center in Chula Vista, California. The primary purpose of this study is to identify any potential for physical deterioration of existing retail facilities resulting from socioeconomic causes related to the subject development. Of primary concern are retail centers located on Broadway in the vicinity of the study site on Palomar Street. However, all potentially impacted centers and strip retail within the Montgomery Specific Plan area have been included in the scope of this analysis.

The major findings of the study include, but are not limited to, the following:

- The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. It comprises 12.23 acres with 127,365 square feet planned for development, resulting in a coverage ratio of 24 percent. The center is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five freestanding pads, four of which would be restaurants (fast food), and one a financial institution.
- CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway clearly represents the largest retail corridor with a total of 830,378 square feet, of which 661,896 are classified as retail centers ranging in size from 6,000

to 290,000 square feet. Third Avenue represents the second largest retail with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of retail space in centers and 11,600 square feet of freestanding or small strip space.

- Within the primary market area (1.5 mile radius) the population is projected to grow at .1 percent per year from 30,258 in 1988 to 30,413 in 1993. The 3.0-mile market area is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. Also, housing unit projections from 1988 to 1993 for the 1.5-mile area represent the slowest growth (.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile area.
- Household incomes within the site's trading area are relatively low. Average household income within 1.5 miles of the site is \$20,686; within 3.0 miles of the site it is \$28,186. These income levels compare to an estimate of \$34,753 for San Diego County.
- A total of 4,311 employees were estimated to work within the market area. These 4,311 employees currently support a major portion of 83,910 square feet of retail space within the market area. Demand by workers in the area will require approximately 1,250 square feet of additional retail space annually in the vicinity of the study site.
- Two potential tenant profiles for the subject development were evaluated in terms of their potential impacts. However, because the actual tenant mix may vary significantly from either alternative, the emphasis of the evaluation was on the potential impact of the total amount of space planned and its expected capture of retail expenditures.
- The supermarket/drug store concept or the off-price community center approach would represent eight percent of occupied retail space in the study area upon completion in 1990. If all known planned retail space was built by that time (163,983 square feet), the subject site would represent seven percent of area retail space.
- In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market segment. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17

percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets. The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

- In terms of the site's capture of retail sales dollars, the first scenario (supermarket/drug store anchors) would represent 15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area. By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.
- Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. Development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers. Centers that could be affected by both planned development and the subject project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located on a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.
- If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers. Persistent vacancies



can not be ascribed to the eventual marketing of the subject center, since it is not significantly large to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to even their construction. The mistakes or choices made by these other developers will not be directly affected by the subject project, or be impacted from cumulative effects of the project.



## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY . . . . .	ii
TABLE OF CONTENTS . . . . .	vi
LIST OF TABLES . . . . .	viii
LIST OF FIGURES . . . . .	ix
INTRODUCTION . . . . .	1
PURPOSE OF THE STUDY . . . . .	1
CLIENT . . . . .	1
METHODOLOGY AND ASSUMPTIONS . . . . .	2
REPORT ORGANIZATION . . . . .	3
SITE DESCRIPTION . . . . .	5
LOCATION AND DIMENSIONS . . . . .	5
DEVELOPMENT PLAN . . . . .	5
LAND USE CHARACTERISTICS . . . . .	7
MARKET AREA DESCRIPTION . . . . .	9
PROPOSED DEVELOPMENT . . . . .	9
COMPETITIVE ENVIRONMENT . . . . .	10
TRAFFIC PATTERNS AND VOLUMES . . . . .	13
DEMOGRAPHIC PROFILE . . . . .	18
RETAIL EXPENDITURE POTENTIAL . . . . .	21
EMPLOYMENT BASE RETAIL EXPENDITURE POTENTIAL . . . . .	24

TABLE OF CONTENTS  
(continued)

	<u>Page</u>
IDENTIFICATION OF POTENTIALLY IMPACTED BUSINESSES/FACILITIES . . . . .	28
STUDY SITE TENANT PLAN . . . . .	28
DESCRIPTION OF EXISTING RETAIL BASE . . . . .	29
STUDY SITE SALES ESTIMATION . . . . .	39
RETAIL MARKET IMPACT . . . . .	43
GROWTH AND RETAIL DEMAND . . . . .	49
MITIGATION OF POTENTIAL IMPACTS . . . . .	54
ANALYSIS OF SIGNIFICANCE . . . . .	56
BENEFITS FROM PROJECT . . . . .	56
CONSIDERATIONS REGARDING COMPETITION . . . . .	59
APPENDIX . . . . .	60



LIST OF TABLES

<u>Tables</u>		<u>Page</u>
1	AVERAGE DAILY TRAFFIC VOLUMES . . . . .	16
2	MARKET AREA POPULATION AND HOUSING ESTIMATES . . . . .	19
3	MARKET AREA HOUSEHOLD INCOME ESTIMATION . . . . .	20
4	RETAIL EXPENDITURE POTENTIAL 1988 . . . . .	22
5	RETAIL EXPENDITURE POTENTIAL 1990 . . . . .	23
6	MARKET AREA EMPLOYMENT BASE . . . . .	25
7	MARKET AREA INDUSTRIAL EMPLOYMENT BASE AND RETAIL SUPPORT PROJECTIONS . . . . .	27
8	EXISTING RETAIL CENTERS AND BUSINESSES MARKET CHARACTERISTICS . . . . .	31
9	PLANNED RETAIL DEVELOPMENTS . . . . .	38
10	ESTIMATED SQUARE FOOTAGE OF RETAIL BY TYPE OF BUSINESS . . . . .	40
11	SUBJECT PROJECT POTENTIAL SALES - SUPERMARKET/DRUG STORE CENTER . . . . .	41
12	SUBJECT PROJECT POTENTIAL SALES OFF-PRICE SHOPPING CENTER . . . . .	42
13	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA, SCENARIO 1 . . . . .	44
14	POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER AND IMPACT ON MARKET AREA, SCENARIO 2 . . . . .	46
15	MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE . . . . .	47
16	STUDY SITE POTENTIAL SALES TAX REVENUES . . . . .	58



LIST OF FIGURES

<u>Figures</u>		<u>Page</u>
1	SITE LOCATION WITHIN CHULA VISTA . . . . .	6
2	SITE PLAN . . . . .	8
3	MONTGOMERY SPECIFIC PLAN . . . . .	11
4	EXISTING RETAIL CENTERS AND BLOCK LISTINGS . . . . .	12
5	TRAFFIC DISTRIBUTION FOR PROPOSED PROJECT . . . . .	14
6	PLANNED RETAIL CENTERS . . . . .	37



## INTRODUCTION

This report presents the findings of a socioeconomic analysis of the possible market impacts from planned development of Palomar Trolley Center. The study was prepared for inclusion in draft and final Environmental Impact Reports and candidate CEQA findings for Case No. EIR 89-4M, for the City of Chula Vista.

### PURPOSE OF THE STUDY

The primary purpose of this study is to identify any socioeconomic impacts that may result in physical deterioration of nearby commercial centers/buildings due to an oversupply of retail commercial space caused by development of the subject property. Of primary concern are retail centers located along Broadway; however, all potentially impacted centers and strip retail within the Montgomery Specific Plan area, and several outside the area, have been included in the scope of this analysis.

### CLIENT

This study was performed by CIC Research, Inc., as subconsultant to A.D. Hinshaw Associates (ADHA), for the City of Chula Vista. The analysis and interpretation of study conclusions, however, represent the independent findings of CIC Research, Inc.

Therefore, any or all study conclusions may not necessarily be shared by the client.

#### METHODOLOGY AND ASSUMPTIONS

Data collection tasks in this study included both primary and secondary approaches. The primary data gathering involved over 60 hours employed in a detailed survey of retail businesses and centers in the Montgomery Specific Plan area. This work allowed firsthand observation of business activity levels, traffic and pedestrian circulation patterns. However, the main benefit of this survey was the identification of all retail businesses in the Montgomery Specific Plan area and on-site estimates of gross square footage. This approach was preferred to utilizing the City's computerized data base which provides acreages by Standard Industrial Classification code classifications (SIC). Retail and other observed businesses were then grouped into the categories employed by the State Board of Equalization, which are nearly equivalent to groupings in which consumer demand estimates were generated by National Decision Systems (NDS). The resulting data base, providing both supply and demand estimations, was then analyzed in relation to the changes expected from the subject development.

Secondary data sources employed in the study include the Montgomery Specific Plan, City of Chula Vista General Plan Digest, City Land Use Inventory (October 1987), Traffic Analysis for Palomar Trolley Center (Willdan Associations, October 1988), and

Sandag Series VII demographic forecasts. Interviews and meetings with City planning and traffic engineering staff allowed CIC to adjust or supplement the published data.

Principal among the assumptions employed in the analysis was that within six months of opening, the subject development would effectively be fully occupied. This assumption was made for three reasons: First, the primary hypothesis, and purpose of the study, is that the size of the subject center will cause it to be a major element in the area's retail base. It is expected that the center will have at least one anchor space leased prior to obtaining construction financing and that leasing of other spaces will follow. Thus, it is reasonable to assume a high level of occupancy. Second, this study is not intended to represent a feasibility analysis for the subject development. Third, and following from the above reason, only a balanced mix of retail can be assumed to occupy the subject center's non-anchor space. No firm plans have been set determining the eventual tenant mix. Concluding that a certain type of retail should not be represented in the center due to possible over-supply would constitute a feasibility determination, and would also invalidate the original purpose of the study which is to identify impacts to other businesses and facilities resulting from development of the subject site.

#### REPORT ORGANIZATION

The report is organized into six sections. Following the introduction is a description of the site related to customer use



and access. The third section defines the market area of the center and describes the total potential retail sales available from this area. In the fourth section, competitive centers are evaluated and resulting market shares are estimated. Also, potentially impacted businesses/centers are identified and the degree of future competition or impact is estimated. The fifth chapter identifies and recommends possible measures for mitigating potential impacts. In the final chapter, the significance of expected changes in the area's retail base are given perspective by determining the benefits derived from the proposed center, and the dynamics of retail development that would affect the area even if the site were not developed.



## SITE DESCRIPTION

### LOCATION AND DIMENSIONS

The study site is located on the south side of Palomar Street between Industrial Boulevard and Broadway in the City of Chula Vista. Figure 1 illustrates the location of the site in the southwestern portion of the city. The site entails 12.23 acres with 127,365 square feet planned for development, resulting in a coverage ratio of 24 percent.

The location is useful for commercial retail development because of its proximity to I-5, the 1,550-foot frontage along Palomar Street, and its proximity to other major retail centers and strip retail along Broadway. Although access from I-5 is a positive element, the freeway also demarks the effective western boundary of the future market area, making it partially semicircular.

### DEVELOPMENT PLAN

The 127,365 gross square feet of retail space is planned to be built into a long (east-west) contiguous building containing two anchor tenants and in-line shops, plus five pads, four of which would be restaurants (fast food), and one financial institution. Square footage for the supermarket would be 45,280; miscellaneous shops and a drug store would comprise 51,750 square feet. In-line

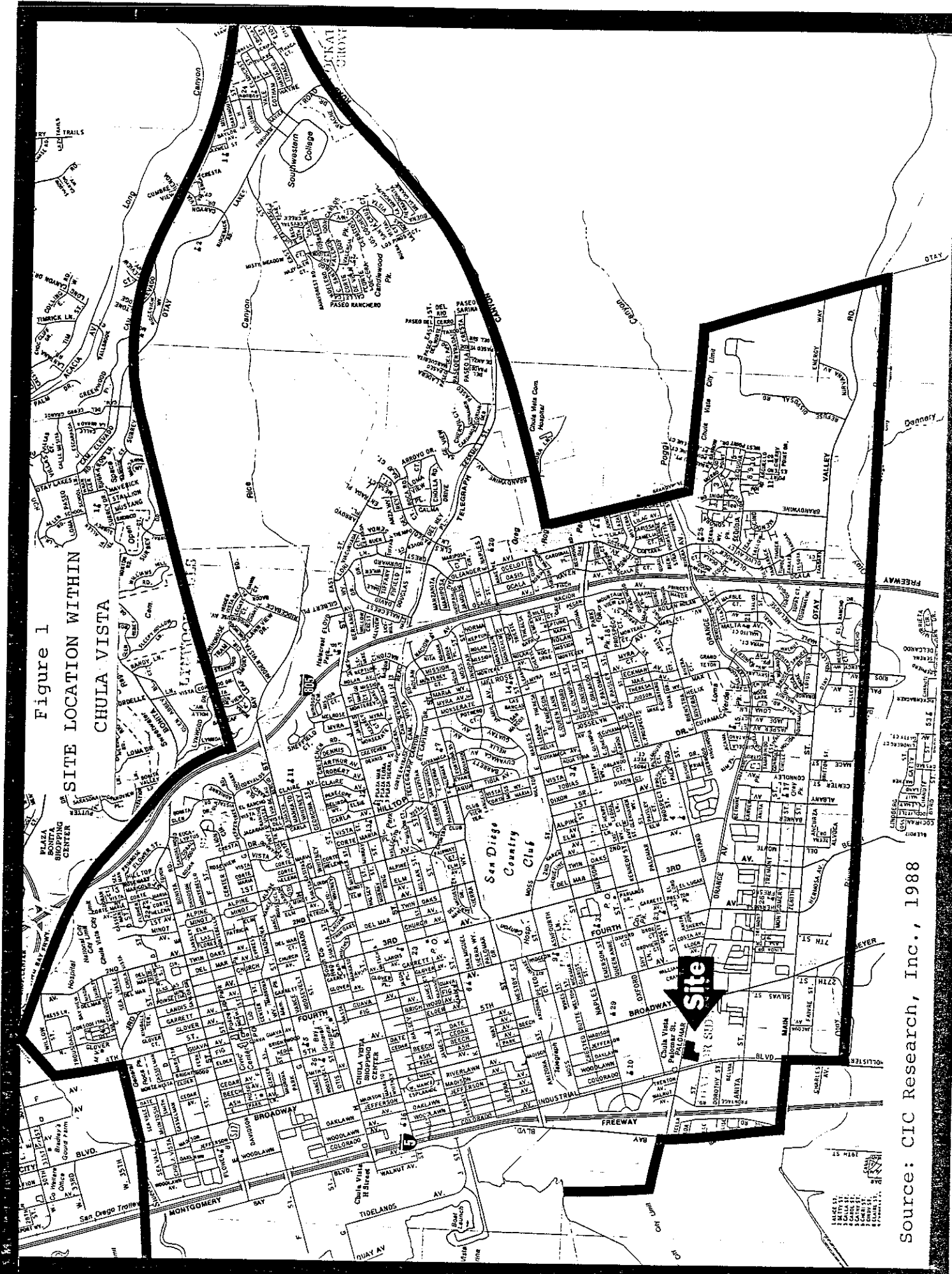


Figure 1  
 SITE LOCATION WITHIN  
 CHULA VISTA

Source: CIC Research, Inc., 1988



## MARKET AREA DESCRIPTION

This chapter will examine the factors that determine the boundaries of the potential market impact area. These factors include the type of proposed development, location of competing facilities and traffic volumes and patterns. Also included in this chapter is a demographic profile of the market area. The last section of this chapter details retail expenditure potential from residential and employment support.

### PROPOSED DEVELOPMENT

The proposed development plan which was mentioned in the previous chapter would be representative of a large scale neighborhood shopping center with a supermarket as the principal anchor. Alternatively, depending on the chosen tenants, the site could represent a community shopping center with an off-price department store as the principal anchor.

Neighborhood centers generally range from 30,000 to 100,000 square feet with a site area of three to ten acres. In a typical urban environment, a neighborhood shopping center would draw primary support (70-80%) from the employment and residential base within a 1.5 mile radius. The secondary trade area generates from 15 to 20 percent of sales and could extend the trade area to a 3.0

mile radius. Based on the primary and secondary trade areas, the proposed shopping center could potentially impact competing retail developments within a similar area.

Community centers are typically developed around a department store or a large variety store ranging from 100,000 to 300,000 square feet with a site area of 10 to 30 acres. The primary trade area generally extends three to five miles. The secondary trade area can extend the trade area to seven to ten miles from the center.

Given the large amount of nearby retail facilities, the market area is expected to draw support from a customer base of approximately three miles. The following paragraphs detail the subject development's competitive environment.

#### COMPETITIVE ENVIRONMENT

Another determinant of the market impact area is the location of competitive retail space in relation to the proposed development. CIC Research conducted a windshield survey to locate, classify and measure all existing retail establishments within the Montgomery Specific Plan area (see Figure 3). The retail locations are graphically presented in Figure 4 by retail center and by blocks of freestanding and strip retail space. The following chapter will detail specifics for each center and block in terms of estimated square feet by retail classification.

Based on two possible combinations of tenant types for the subject development and the location of potentially competitive

Figure 3

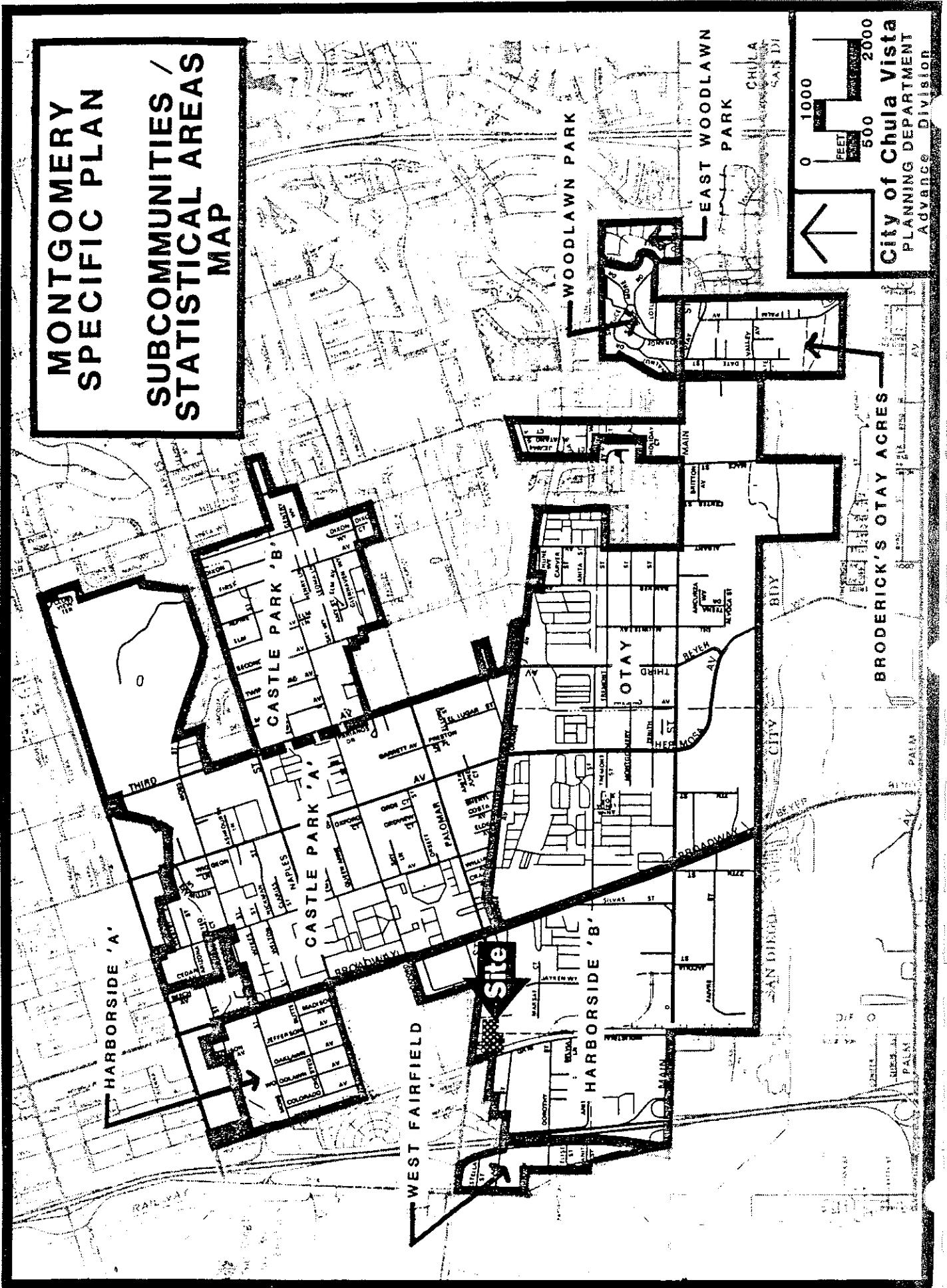
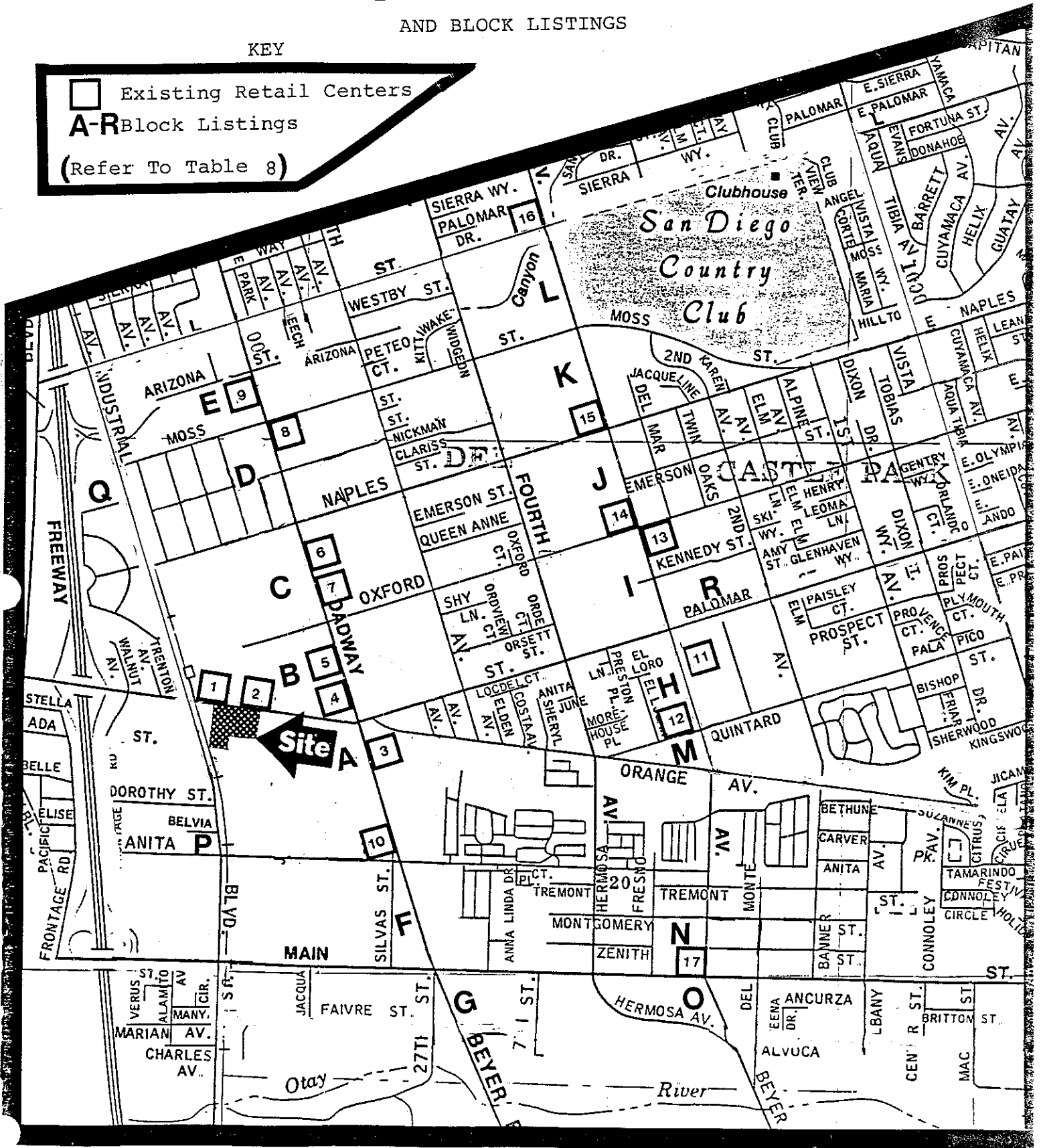


Figure 4  
 EXISTING RETAIL CENTERS  
 AND BLOCK LISTINGS

KEY

Existing Retail Centers  
**A-R** Block Listings  
 (Refer To Table 8)



Source: CIC Research, Inc., 1988

projects, CIC determined the potentially impacted retail areas to include Palomar Street, Broadway and Third Avenue within the approximate boundaries of the Montgomery Specific Plan.

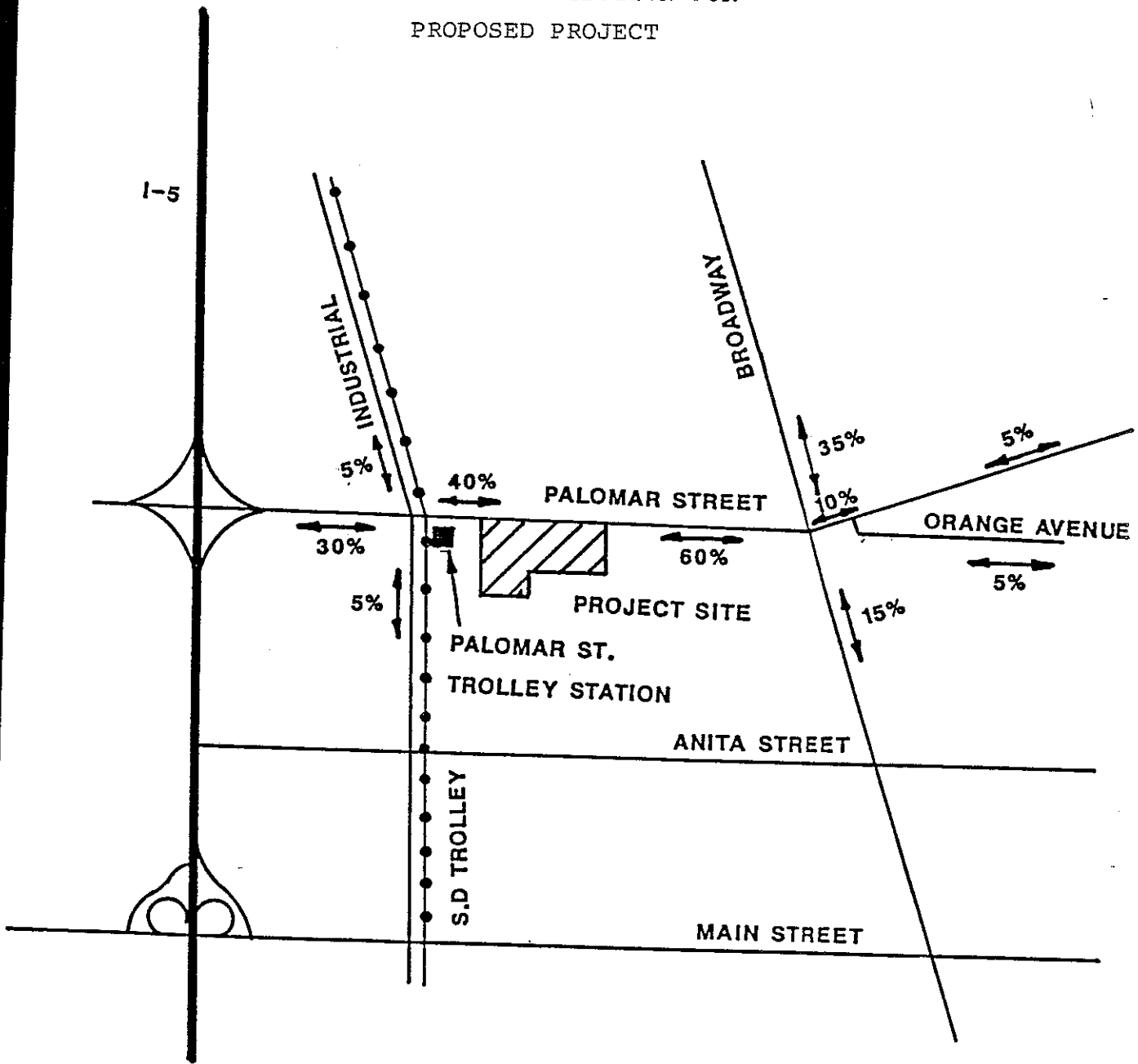
CIC surveyed approximately 1.6 million square feet of retail space located within the market impact area. The market impact area is broken into the following three sections: Broadway, Third Avenue, and Palomar Street. Broadway clearly represents the largest retail market with a total of 830,378 square feet, of which 661,896 are classified as retail centers ranging in size from 6,000 to 290,000 square feet. Third Avenue represents the second largest retail market with a total of 677,007 square feet, with a majority (346,537 square feet) classified as freestanding or small strip centers. Palomar currently has a total of 66,418 square feet of retail space in centers and 11,600 square feet of freestanding or small strip space. These three streets form the market impact area, which represents the majority of retail developments with potential to be physically impacted due to an oversupply of retail space caused by the development of the subject property.

#### TRAFFIC PATTERNS AND VOLUMES

Traffic distribution for the proposed project (see Figure 5) was determined by Willdan Associates and confirmed by JHK and Associates. The majority of trips (60%) are projected to be generated from traffic originating from the east along Palomar Street, of which 35 percent will orient from Broadway north of Palomar Street and only 15 percent will orient from Broadway south of Palomar.



Figure 5  
 TRAFFIC DISTRIBUTION FOR  
 PROPOSED PROJECT



Source: Willdan Associates

This would indicate that retail developments along Broadway north of Palomar will have higher potential to be impacted both positively and negatively by the proposed development than retail developments along Broadway south of Palomar. Only ten percent of the traffic to the site is projected to orient from Palomar and Orange Avenue east of Broadway, indicating a potentially slight impact on retail development along Third Avenue.

A projected 40 percent of the traffic to the site will orient to and from the west. Of this 40 percent, ten percent will orient from Industrial Boulevard, which has virtually no competitive retail space. An estimated 30 percent of the traffic to the study site will orient to and from Interstate 5. Interstate 5 (I-5) travelers have access to a variety of retail developments, hence it would be difficult to determine which retail areas these travelers bypass. However, it can be assumed that trip origins would be concentrated in proximity to the site with less frequency at greater distances from the Palomar Street interchange with I-5.

Historical average daily traffic (ADT) volumes within the market impact area and at freeway exits are presented in Table 1. Traffic volume data were utilized in evaluating traffic patterns and growth near the competitive retail centers. Also, ADT volumes were used were used to assist in determining retail areas with the highest potential for physical deterioration due to the development of the subject site.

Palomar Street between I-5 and Industrial Boulevard has experienced the highest percent change in traffic volumes from 1986

Table 1  
 AVERAGE DAILY TRAFFIC VOLUMES  
 (in thousands)

<u>Primary Street/ Cross Streets</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>% Change 1986-1987</u>	<u>% Change 1983-1987</u>
<b>Broadway</b>							
L Street & Naples Street	18.6	18.6	18.6	23.2	25.9	11.6%	39.2%
Naples Street & Palomar Street	19.0	19.3	19.8	22.9	27.2	18.8	43.2
Palomar Street & Main Street	12.8	12.8	12.8	16.4	15.6	-4.9	21.9
<b>Industrial</b>							
Naples Street & Palomar Street	4.3	4.3	3.9	5.6	5.3	-5.4	23.3
Palomar Street & Main Street	4.3	5.3	5.6	7.6	7.1	-6.6	65.1
<b>Main Street</b>							
Industrial Boulevard & Broadway	14.6	15.7	16.9	18.0	20.1	11.7	37.7
<b>Orange Avenue</b>							
Melrose Avenue & Interstate 805	17.9	18.8	18.8	18.8	23.2	23.4	29.6
<b>Otay Valley Road</b>							
Melrose Avenue & Interstate 805	14.0	14.0	14.0	14.9	18.9	26.8	35.0
<b>Palomar Street</b>							
Interstate 5 & Industrial Blvd.	21.3	23.4	23.4	23.4	29.7	26.9	39.4
Industrial Blvd. & Broadway	22.0	22.0	22.1	22.9	28.2	23.1	28.2
Orange Avenue & Fourth Avenue	12.6	13.0	12.6	14.8	13.9	-6.1	10.3
Fourth Avenue & Third Avenue	13.5	13.5	13.5	13.9	14.0	0.7	3.7
Third Avenue & Hilltop Drive	11.6	11.6	11.6	12.1	12.4	2.5	6.9
<b>Telegraph Canyon Road</b>							
L Street & Interstate 805	28.4	28.4	28.4	30.7	37.5	22.1	32.0
<b>Third Avenue</b>							
L Street & Moss Street	19.0	22.0	22.7	22.7	21.6	-4.8	13.7
Naples Street & Oxford Street	20.0	19.7	20.5	20.5	21.1	2.9	5.5
Oxford Street & Palomar Street	20.0	19.7	19.7	19.7	19.6	-0.5	-2.0
Palomar Street & Quintard St.	15.6	15.6	15.6	15.9	18.0	13.2	15.4
Quintard Street & Main Street	12.6	12.4	13.3	13.8	14.6	5.8	15.9

Source: San Diego Association of Governments  
 CIC Research, Inc., 1988

to 1987 (26.9%). The traffic patterns indicate Palomar Street is the major western entrance to the Montgomery Specific Plan area. The major traffic routes within the market impact area include Palomar east to Broadway and north on Broadway. Broadway, extending north from Palomar Street to Naples Street and from Naples Street to L Street, experienced the largest traffic increase from 1986 to 1987 (18.8% and 11.6%, respectively) compared to the southern section of Broadway (Palomar Street to Main Street) with traffic decreasing 4.9 percent during the same period.

The percentage changes (1986 to 1987) in traffic volumes on the southern section of Third Avenue at Palomar Street/Quintard Street and Quintard Street/Main Street are greater (13.2% and 5.8%, respectively) than the northern section at Oxford Street/Palomar Street, Naples Street/Oxford Street, and L Street/Moss Street (-0.5%, 2.9% and 4.8%, respectively). However, in terms of actual numbers, the northern section has higher recorded traffic counts than the southern sections of Third Avenue.

The average daily traffic counts confirm Broadway as being the major north-south surface street, with 1987 ADT volumes ranging from 15,600 to 27,900 as compared to Third Avenue which ranges from 14,600 to 21,600. Palomar Street appears to be the major western entrance to the Montgomery Specific Plan Area with 1987 traffic counts of 29,700 just east of Interstate 5.

## DEMOGRAPHIC PROFILE

CIC Research utilized data from National Decision System to develop a demographic profile of the market area (refer to Table 2 and 3). The demographic data are provided in the form of four radii ranging from 1.5 to 10.0 miles from the intersection of Palomar and Broadway. Each identified retail center would have its own specific trade area depending on the type of tenants or use. For example, the Ralphps/Target Center would be considered a community center with a trade area extending approximately three to five miles. The Price Club would draw from a still larger trade area. A demographic profile forms the basis for estimating the residential purchasing power within the trade area.

Within the primary market area (1.5 mile radius) the population is projected to grow at .1 percent per year (see Table 2) from 30,258 in 1988 to 30,413 in 1993. The 3.0-mile radius is projected to grow at 1.6 percent per year from 144,540 to 178,578 during the same period. These growth rates represents the slowest population increases in the four categories. Also, housing unit projections from 1988 to 1993 for the 1.5 mile radius represent the slowest growth (.2% annually) compared to a projected 1.7 percent annually for the 3.0 mile radius. Again, these areas represent the slowest growth compared to the 5.0 or 10.0 mile areas. These trends indicate the area (1.5 and 3.0 miles) is nearly built out in terms of its residential base.

The market area 1988 household income estimations and distributions are presented in Table 3. The income level within a trade

Table 2  
MARKET AREA POPULATION AND HOUSING ESTIMATES

	<u>1980</u>	<u>1988</u> <u>Estimate</u>	<u>1990</u> <u>Estimate*</u>	<u>1993</u> <u>Estimate</u>	<u>Annual Percentage</u> <u>Change</u> <u>1980-90</u> <u>1988-93</u>
Population:					
1.5-mile distance	30,512	30,258	30,336	30,413	(.06)% .18
3.0-mile distance	144,540	164,919	171,748	178,576	1.7 1.6
5.0-mile distance	210,985	252,223	265,719	279,215	2.3 2.1
10.0-mile distance	514,576	606,458	635,945	665,431	2.1 1.9
Housing Units:					
1.5-mile distance	11,748	12,908	12,956	13,004	1.0 .2
3.0-mile distance	48,416	57,449	59,936	62,423	2.2 1.7
5.0-mile distance	70,384	86,301	91,015	95,729	2.6 2.1
10-mile distance	166,511	203,670	215,030	226,390	2.6 2.1

\*1990 estimates by CIC Research, Inc.

Source: National Decision Systems

Table 3  
 MARKET AREA HOUSEHOLD INCOME ESTIMATION

	<u>1.5 Mile Distance</u>	<u>3.0 Mile Distance</u>	<u>5.0 Mile Distance</u>
1988 Income Distribution:			
\$75,000 or more	1.47%	3.45%	4.38%
\$50,000-\$74,999	5.40	11.32	12.05
\$35,000-\$49,999	8.42	17.18	16.67
\$25,000-\$34,999	14.14	17.05	16.16
\$15,000-\$24,999	28.01	22.65	22.04
\$ 7,500-\$14,999	24.90	16.24	16.18
Under \$7,500	17.67	12.11	12.51
1988 Average Household Income	\$20,686	\$28,186	\$29,230
1988 Median Household Income	\$18,076	\$26,367	\$27,122

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Source: National Decision Systems

area is important not only in terms of total dollars available, but also in relation to spendable income by retail category. The 1.5-mile radius has the lowest average household income (\$20,686) compared to the 3.0 mile radius (\$28,186) or the 5.0 mile radius (\$29,230). All three areas have significantly lower average household incomes than San Diego County (\$34,753). Within the 1.5 mile radius the majority (53%) have annual household incomes ranging from \$7,500 to \$24,999, whereas the 3.0 mile radius has only 39 percent of the population within the same income range. The population within the 1.5 mile radius will spend a higher proportion of household income on food, compared to the 3.0 or 5.0 mile radii, due to the lower average household income. On the other hand, the residents within the 3.0 and 5.0 mile areas will spend a higher proportion of their income on nonfood items. The income level of a trade area serves as a determinant of appropriate tenant mix which for the study site should be targeted toward low-income households.

#### RETAIL EXPENDITURE POTENTIAL

Current (1988) and forecasted (1990) retail expenditures by State Board of Equalization (SBE) categories for the four areas are detailed in Tables 4 and 5. Potential expenditures were estimated by National Decision Systems (NDS) using statistical projections based on the Census of Retail Trade. Retail expenditures are relative to the number of households and retail establishments within the given market area.



Table 4  
 RETAIL EXPENDITURE POTENTIAL  
 1988  
 (values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$38,916	\$192,317	\$289,283	\$670,186
Eating & drinking place	17,283	85,179	128,122	296,957
Drug & proprietary	6,421	30,078	45,214	105,721
Gasoline service station	15,500	78,485	118,091	272,475
General merchandise	26,970	128,644	193,423	450,831
Apparel & accessories	7,864	42,279	63,657	145,467
Furniture, furnishings & equip.	7,850	45,637	68,769	155,296
Automotive dealer	29,008	150,580	226,631	520,791
Hardware, lumber & garden	7,892	40,764	61,348	141,091
Other retail	<u>14,827</u>	<u>93,276</u>	<u>140,662</u>	<u>314,115</u>
Total retail	<u>\$172,531</u>	<u>\$887,239</u>	<u>\$1,335,200</u>	<u>\$3,072,930</u>

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Source: CIC Research, Inc., 1988  
 National Decision Systems

Table 5  
 RETAIL EXPENDITURE POTENTIAL  
 1990  
 (values in thousands)

	<u>Potential Expenditures Within Distance of Site</u>			
	<u>1.5 Miles</u>	<u>3.0 Miles</u>	<u>5.0 Miles</u>	<u>10.0 Miles</u>
Food store	\$42,918	\$238,076	\$374,078	\$865,469
Eating & drinking place	19,060	105,446	165,677	383,486
Drug & proprietary	7,081	37,235	58,467	136,527
Gasoline service station	17,094	97,160	152,706	351,870
General merchandise	29,743	159,253	250,119	582,197
Apparel & accessories	8,673	52,339	82,316	187,854
Furniture, furnishings & equipment	8,657	56,496	88,927	200,547
Automotive dealer	31,991	186,409	293,061	672,542
Hardware, lumber & garden	8,704	50,463	79,330	182,203
Other retail	<u>16,352</u>	<u>115,470</u>	<u>181,893</u>	<u>405,644</u>
Total retail	<u>\$190,273</u>	<u>\$1,098,347</u>	<u>\$1,726,574</u>	<u>\$3,968,339</u>

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Source: CIC Research, Inc., 1988  
 National Decision Systems

Table 10  
 ESTIMATED SQUARE FOOTAGE OF  
 RETAIL SPACE BY TYPE OF BUSINESS

	Residential Market Base		Daytime Employment Market Base		Total	
	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores	Estimated Sq. Ft.	# of Stores
Apparel stores	65,766	33			65,766	33
General merchandise	389,550	9			389,550	9
Drug stores	43,150	4			43,150	4
Food stores	177,311	24	26,836	10	204,147	34
Packaged liquor Eating and drinking places	14,440	6			14,440	6
Home furnishings and appliances	139,830	51	53,730	19	193,560	70
Building materials and farm implements	141,169	21			141,169	21
Auto supplies/dealers	157,570	6			157,570	6
Service stations	14,384	8			14,384	8
Other retail stores	7,600	4			7,600	4
	<u>136,759</u>	<u>54</u>	<u>1,344</u>	<u>1</u>	<u>138,103</u>	<u>55</u>
Retail store total	1,287,529	220	81,910	30	1,369,439	250
All other outlets	<u>118,502</u>	<u>69</u>	<u>2,000</u>	<u>1</u>	<u>120,502</u>	<u>70</u>
Total space surveyed	<u>1,406,031</u>	<u>289</u>	<u>83,910</u>	<u>31</u>	<u>1,489,941</u>	<u>320</u>

Source: CIC Research, Inc., December 1988

Table 11  
 SUBJECT PROJECT POTENTIAL SALES -  
 SUPERMARKET/DRUG STORE CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	6,000	\$145.72	\$874
Gen. merchandise stores	15,000	100.52	1,508
Drug stores	9,000	179.09	1,612
Food stores			
supermarket	45,280	371.37	16,816
specialty	<u>3,500</u>	128.82	<u>451</u>
	48,780		17,267
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Other retail stores			
photography	2,000	120.53	241
other retail stores	<u>29,250</u>	155.33	<u>4,543</u>
	31,250		4,784
All other outlets			
dry cleaners	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	
 Total	 <u><u>127,365</u></u>		 <u><u>\$27,998</u></u>

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Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

Table 12  
 SUBJECT PROJECT POTENTIAL SALES -  
 OFF-PRICE SHOPPING CENTER  
 (1988 dollars)

<u>Type of Business</u>	<u>Possible Square Footage Distribution</u>	<u>Estimated Sales Per Sq. Ft.</u>	<u>Potential Annual Sales (000s)</u>
Apparel stores	10,000	\$145.72	\$1,457
Gen. merchandise stores	45,280	100.52	4,552
Food stores	10,500	128.82	1,353
Packaged liquor	3,500	206.26	722
Eating & drinking places			
fast food	6,520	179.11	1,168
restaurant	<u>4,000</u>	143.72	<u>575</u>
	10,520		1,743
Furniture, furnishings	15,000	127.59	1,914
Auto dealers & supplies	2,200	133.32	293
Other retail stores	23,550	155.33	3,658
All other outlets	2,000	105.01	210
Non-taxable businesses			
financial institutions	4,815	N/A	--
 Total	 <u>127,365</u>		 <u>\$15,902</u>

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Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping  
 Centers, 1987"

Shopping Centers" and represent medians; however, sales levels could exceed these amounts for outlets that are particularly appropriate for the location, and income levels of area households. The major difference between the two approaches is represented by the sales rate and square footage for a supermarket in Scenario 1, producing an indicated total gross income for the entire center of \$27,998,000.

#### RETAIL MARKET IMPACT

Market impacts and capture rates have been estimated on the basis of square footage, numbers of outlets, and dollar volumes of sales. Table 13 presents a comparison of the existing square footages and outlets in and adjacent to the Montgomery Specific Plan area with the supermarket/drug store concept. Overall, this scenario would represent eight percent of both the existing retail square footage and outlets. Assuming all of the known planned retail space was built by mid-1990 (163,983 square feet), the subject development would then account for seven percent of area retail space.

Categories in which the center would represent a higher proportion of retail space would be in drug stores, food stores, and other outlets.<sup>3</sup> A drug store would generate increased competition among other drug stores in the area. However, the addition of fast food restaurants would generate more activity for similar

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<sup>3</sup>"Other outlets" here is used only as a catch-all category since the actual types of outlets is undetermined.

Table 13  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA  
 SCENARIO 1

	Existing Occupied Retail Space		Scenario 1 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	6,000	1	8%	3%
General merchandise	389,550	9	15,000	1	4	10
Drug stores	43,150	4	9,000	1	17	20
Food stores	204,147	34	48,780	3	19	8
Packaged liquor	14,440	6	--	--	0	0
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	--	--	0	0
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	--	--	0	0
Service stations	7,600	4	--	--	0	0
Other retail stores	<u>138,103</u>	<u>55</u>	<u>31,250</u>	<u>16</u>	<u>18</u>	<u>22</u>
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	<u>120,502</u>	<u>70</u>	<u>2,000</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	<u>1,489,941</u>	<u>320</u>	<u>122,550*</u>	<u>27</u>	<u>8%</u>	<u>8%</u>

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

outlets near Palomar and Broadway, at the expense of the market shares held by restaurants along Third Avenue.

In Table 14, the off-price center concept is evaluated in the same manner. The difference in representation by grouping is a greater emphasis in apparel, general merchandise, liquor, furniture, and auto supplies categories. This emphasis, however, does not translate directly to potential impacts, since with the exception of general merchandise, the existing representation of these outlets is relatively low.

In terms of the direct impact to businesses by retail category, neither of the two concepts would be expected to significantly affect any particular market. By category, the highest potential impact would be in the drug store group where a new outlet would represent 17 percent of this square footage, and one of five total outlets. A 19 percent share of space is indicated in the food store category. However, the supermarket would be one of five major stores and 32 other smaller food outlets.

The off-price concept would balance the existing representation of retail uses, while further targeting retailing in the area toward the low-end shopper. This concept would have less impact on the market, by retail groups, than the supermarket/drug store option.

A third means of evaluating market impact is to estimate pro-rata sales capture rates for the project at the time it would open. Conclusions of this approach are presented in Table 15. At the bottom of the table, the total estimated sales from Scenario 1



Table 14  
 POTENTIAL RETAIL USE FOR PALOMAR TROLLEY CENTER  
 AND IMPACT ON MARKET AREA  
 SCENARIO 2

	Existing Occupied Retail Space		Scenario 2 Palomar Trolley Center		Palomar Trolley Center as a Proportion of Existing Space	
	Sq. Ft.	Outlets	Sq. Ft.	Outlets	Sq. Ft.	Outlets
Apparel stores	65,766	33	10,000	5	13%	13%
General merchandise	389,550	9	45,280	1	10	10
Drug stores	43,150	4	--	--	0	0
Food stores	204,147	34	10,500	4	5	11
Packaged liquor	14,440	6	3,500	1	20	14
Eating and drinking places	193,560	70	10,520	4	5	5
Furniture, furnishings and appliances	141,169	21	15,000	1	10	5
Building materials and farm implements	157,570	6	--	--	0	0
Auto supplies/dealers	14,384	8	2,200	1	13	11
Service stations	7,600	4	--	--	0	0
Other retail stores	138,103	55	23,550	9	15	14
Subtotal	1,369,439	250	120,550	26	8%	9%
All other outlets	120,502	70	2,000	1	2	1
Total	1,489,941	320	122,550*	27	8%	8%

\*A 4,815 square foot financial institution would bring this total to 127,365.

Source: CIC Research, Inc., December 1988

Table 15  
 MARKET SHARE CAPTURE BY RETAIL CATEGORY AND TRADE AREA SIZE  
 (1988 dollars, values in thousands)

	Estimated 1990 Retail Sales			Palomar Trolley Center		Palomar Trolley Center							
	Trade Area Around Site			Projected Sales		Capture of Market Area Sales							
	1.5 Miles	3.0 Miles	5.0 Miles	#1	#2	1.5 Miles	3.0 Miles	5.0 Miles	1.5 Miles	3.0 Miles	5.0 Miles		
						Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2	Scn.#1	Scn.#2
Apparel	\$8,673	\$52,339	\$82,316	\$874	\$1,457	10%	17%	2%	3%	1%	2%		
General merchandise	29,743	159,253	250,119	1,508	4,552	5	15	1	3	1	2		
Drug stores	7,081	37,235	58,467	1,612	--	23	--	4	--	3	--		
Food stores	42,918	238,076	374,078	17,267	2,075	40	3	7	1	5	--		
Eating and drinking places	19,060	105,446	165,677	1,743	1,743	9	9	2	2	1	1		
Furniture, furnishings and appliances	8,657	56,496	88,927	--	1,914	--	22	--	3	--	2		
Building materials and farm implements	8,704	50,463	79,330	--	--	--	--	--	--	--	--		
Auto dealers and supplies	31,991	186,409	293,061	--	293	--	1	--	--	--	--		
Service stations	17,094	97,160	152,706	--	--	--	--	--	--	--	--		
Other retail stores	16,352	115,470	181,893	4,784	3,658	29	22	4	3	3	2		
Subtotal	\$190,273	\$1,098,347	\$1,726,574	\$27,788	\$14,970	15%	8%	3%	1%	2%	1%		
All other outlets	--	--	--	210	210	N/A	N/A	N/A	N/A	N/A	N/A		
Total	\$190,273	\$1,098,347	\$1,726,574	\$27,998	\$15,902	15%	8%	3%	1%	2%	1%		

Source: CIC Research, Inc., 1988  
 Urban Land Institute, "Dollars and Cents of Shopping Centers, 1987"  
 National Decision Systems

(supermarket/drug store anchors) would represent 15 percent of available expenditures in the immediate 1.5-mile market area. Scenario 2 would account for only eight percent of expenditures in the 1.5-mile market area.

By assuming the subject development works in combination with the Ralphs/Target center and other retail development at Palomar and Broadway drawing customers like a community-size shopping center, the market area would include a region of up to three to five miles from the site. The three mile area would extend eastward to I-805. The proportionate capture of total sales in the three-mile market area are three and one percent for Scenarios 1 and 2, respectively. This market area is probably the best representation of regional draw for the study site considering the synergy that would be expected from adjacent retail uses.

Given the three-mile market size, the food store would capture the largest share of retail expenditures, at a seven percent rate.<sup>4</sup> The drug store in Scenario 1 would represent the next largest addition to the market requiring four percent of potential expenditures. Other categories representing smaller shares are not considered significant enough to seriously effect the market.

The second scenario, requiring eight percent of expenditures from the 1.5 mile region and one percent of the cumulative

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<sup>4</sup>Retail developments outside the Montgomery Specific Plan area, but within three miles, were not considered in this part of the analysis as their market areas and capture rates would also need to be estimated. Given the limitations established by the scope of the study, the analysis represents a comparison only for retail establishments within the Montgomery Plan area.

expenditures up to three miles from the site would not be expected to significantly affect any particular category of retail business.

#### GROWTH AND RETAIL DEMAND

Although the relative proportions of the market that the study site represents appear small, as either eight percent of total square footage or one to three percent of potential sales, whatever sales capture occurs, most will be obtained through competing with existing and planned outlets. Very little of the site's revenues can be expected from growth of population or households.

Growth in the number of households within 1.5 and 3.0 miles of the site is expected to occur at 0.2 and 1.7 percent annual rates. Based on the estimated 1,495,907 occupied square feet of retail space in the Montgomery Specific Plan area, a range of only 5,966 to 51,089 additional square feet would be required at these projected rates of growth.

Planned retail centers (not including the subject) would represent an additional 163,983 square feet or a 5.1 percent increase in space over the next two years. Adding the subject project, a total of 291,348 square feet would be added, or a 9.0 percent annual increase in two years, above the amount of existing occupied space.

Increased competitiveness can be expected to be greatest among the more poorly designed and located centers, particularly smaller, new centers along Broadway. Several of these centers have poor tenant bases and substantial vacancies. It is assumed that land

and construction costs, combined with parking requirements (higher ratio of land to leasable area) require these newer centers to have high occupancy rates and average to high lease rates for the area in order to break even. Furthermore, development of the four planned centers will intensify competition for tenants to fill the vacant space. Pre-leasing activity from those centers may already be affecting lease-up of existing centers.

Centers that could be affected by both planned development and the subject project include Palomar Square at the 1300 block of Broadway, Naples Center at the 1100 block of Broadway, and a center at 1010 Broadway. Palomar Square comprises 34,750 square feet and has three vacant units containing 8,320 square feet (24% vacant). Although it is located on a corner, visibility to the main center is blocked by fast food outlets within the center, one along Broadway and the other on Palomar Street. Leasing of the remaining space will be difficult.

Naples Center entails a total of 20,452 square feet and is located in the middle of the 1300 block of Broadway; two units containing 10,048 square feet are vacant (49% vacancy). Tenants include a U.S. Armed Services recruiting office, print shop, arcade, and a cabinet shop. At 1010 Broadway, a 12,272 square foot center has a variety of users including an office for motor vehicle registration, a liquor store, a laundry, a video rental outlet, and a financial services firm. Two units are vacant (3,460 square feet, or 28%). A fourth center just north of the Montgomery Specific Plan area in the 900 block of Broadway could also be

affected. This center has a check cashing/lottery business and a nondescript financial services operation as main tenants. Another outlet, Los Gallos, will be renting the end unit along Moss Street. Built in 1987, this center has approximately 11,400 square feet, 3,400 of which (30%) is vacant.

Whereas retail centers are designed to accommodate certain uses, and original leasing efforts attempt to combine these uses for mutual support, the above-mentioned centers were unable to attract a functional combination of tenant types. Leasing activity up to this point has allowed nearly any business that will sign a lease. Such haphazard combinations can discourage subsequent tenants from locating in the center. Other better located and planned centers will continued to out-compete these centers for tenants.

The subject development is a much better located center and has indicated specific leasing plans. Even if lease rates are higher at the subject center, higher expected sales volumes for tenants there would favor this project over a smaller center along Broadway.

The result of this competition for tenants in a market where retail space is being added faster than housing units may be continued vacancies in the smaller centers. Lower lease rates or more concessions and possible failures could result, given the individual margins under which each must operate. However, it is unlikely that such failures would occur. The reason is that the low-end users noted above predominate in the Broadway area and centers catering to such tenants should expect both slow lease-up

activity, above average tenant turnover, and allowances for uncollected rent.

In regards to development of Palomar Trolley Center, growth of the retail district at Palomar and Broadway is dependent upon expansion of the market area that the district serves. This expansion could be growth in the number of households, greater depth in the existing area through capture of larger market shares, or more penetration into more distant neighborhoods and communities. The subject center is well located to accomplish such expansion in any of these approaches by correctly choosing appropriate anchors and auxiliary shops. Successful marketing of the center would bring more shoppers to the area; however, these people are not expected to also shop at the smaller, poorly planned and located facilities.

It is not possible to determine that vacancies will persist in existing retail facilities, or that leasing of the subject center would cause extended periods of vacancy for other planned retail developments. Vacancy rates above 30 percent over a period of at least three years would be required before any deterioration to the physical structures or landscaping would be anticipated. Such vacancies and resulting deterioration cannot be ascribed to the planned development of the subject retail center as a finding of the analyses performed in this study.

If vacancies do persist, the causes of the eventual losses or impacts would be poor design and leasing strategies, and secondary locations in relation to the existing or planned retail centers.

Persistent vacancies can not be ascribed to the eventual marketing of the subject center, mainly since it is not significantly large to impact the market, and its eventual uses have not been specifically identified. Retailing trends that discount the viability of such small centers (centralization, anchoring, theme, design, access, visibility) have been in effect prior to even their construction. The mistakes or choices made by these other developers will not be directly affected by the subject project, or be impacted from cumulative effects of the project.





## MITIGATION OF POTENTIAL IMPACTS

No significant socioeconomic impacts are expected from development or operation of Palomar Trolley Center. As a result, no physical effects of impacts can be anticipated to buildings or shopping centers. Because no impacts have been identified, there are no mitigation measures to be associated with the project.

Development of the subject project does raise questions, however, regarding the character of retailing in the area of Palomar Street and Broadway. The trend of developing large centers or single retail outlets that draw from a wide market area, with smaller centers/businesses crowding nearby or as spin-offs, can be expected to create an active, competitive environment that will favor the most current viable retailing concept. It follows that more traditional or outdated retailers will find it difficult to compete and possibly be forced out of business. An example of a new business out-competing an older one are the 7-11 and the now-closed Sunset Market, across the street from each other at Broadway and Naples. The evolution of merchandising and marketing approaches exemplified in this example will continue to intensify competition in the area. Although the subject development is not

seen as directly stimulating increased competition from a cumulative standpoint, it will tend to perpetuate the process.

The City could mitigate the growth of intensity in competitive pressures indirectly through the use of planning controls. One means of reducing this trend is to stop encouraging it. The General Plan states that "there is evidence of some overdevelopment of commercial facilities at present..."<sup>5</sup>, but then follows in stating that the trend of development of "thoroughfare commercial" uses be encouraged. To be internally consistent, and in step with market realities, planning guidelines should be recast to discourage strip retail development where it is considered to be overbuilt and also discourage spin-offs to larger, destination retail uses. Rather than promoting infilling sites along Broadway with additional retail space, supportive uses such as services, administrative offices, and multifamily residential (with proper buffers) should be promoted. Implementing steps to support existing retail facilities and discourage haphazard strip development will reduce potential business turnover in the area.

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<sup>5</sup>City of Chula Vista, General Plan Digest, September 1988, pg. 8.



## ANALYSIS OF SIGNIFICANCE

### BENEFITS FROM PROJECT

Benefits to the community from the subject development are increased retail sales tax receipts for the City and a convenient, useful shopping facility for consumers. These attributes are described below to allow comparison to other implications of the project.

#### Fiscal Impact

The fiscal impact from the development would result from the change in land use and zoning from Limited Industrial (M-52) to Neighborhood Commercial (C-N). In general, industrial development is expected to generate revenues at 74 percent of annual municipal operating costs, on a per-acre basis. Retail development can generally be expected to return 130 percent of operating expenses on a per-acre basis. Given approximate operating expenditures for public safety, etc., of \$10,000 per acre per year for retail development and \$4,300 for industrial, the net benefit from retail development would be approximately \$4,200 per acre or \$51,366 annually from retail development of the site.

A second level of fiscal impact is determined by estimating the proportion of revenues that would be provided by sources outside

the City, i.e. capture of retail sales tax revenues from nonresidents. This calculation is made in Table 16. Expenditures at the study site are estimated for the 2,715 households within 1.5 miles of the site, but lying outside the City boundaries. First a determination of the degree at which each retail category would be represented at the site (i.e. because a small proportion of apparel shopping is conducted at neighborhood centers compared to community, regional, and specialty centers, apparel sales were given 25 percent categorical representation at the site). A second order of reduction in sales capture was determined by proportionate square footages in competitive outlets in the area.

Retail sales tax represents approximately 77 percent of annual revenues accruing to the City from retail development. The \$22,707 in sales tax revenue generated from nonresidents within 1.5 miles of the site would account for eight percent of total sales tax receipts, based on the supermarket/drug store concept. This estimate of outside capture is considered to be conservative since only households within a short driving distance from the site were included.

#### Convenience

The attributes of the site location for retail use were described in Chapter 2 of this report. A successful development would provide the community with additional convenient, and hopefully worthwhile, shopping opportunities.

Table 16  
 STUDY SITE POTENTIAL SALES TAX REVENUES  
 (generated from outside of Chula Vista)  
 (1.5 mile radius)

<u>Retail Category</u>	<u>Site Tenant Mix Market Representation</u>	<u>1990 Households Projection</u>	<u>Potential Sales Per Household*</u>	<u>Site Capture Rate</u>	<u>Potential Site Capture</u>	<u>City Share of Sales Tax Receipts</u>
Food store	100%	2,715	\$961	25%	\$652,279	\$6,523
Eating & drinking places	100	2,715	1,334	18	651,926	6,519
Drug stores	100	2,715	496	50	673,320	6,733
General merchandise	25	2,715	2,082	3	42,395	424
Apparel	25	2,715	607	30	123,600	1,236
Furniture & furnishings	25	2,715	606	4	16,453	165
Hardware, lumber and garden	25	2,715	609	8	33,069	331
Other retail	25	2,715	<u>1,144</u>	10	<u>77,649</u>	<u>776</u>
			\$7,839		\$2,270,691	\$22,707

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\*Taxable 1988 dollars.

Source: CIC Research, Inc., 1988  
 National Decision Systems

## CONSIDERATIONS REGARDING COMPETITION

In the prior chapter, it was noted that the subject retail center would continue in the trend creating increasing competitiveness among smaller centers along Broadway. It was also noted in the chapter prior to that that potential for business losses or failures was rooted in location and design problems associated with these centers/outlets. While the subject center is not expected to cause vacancies to occur, new businesses can be expected to force others out in a continual process whereby the market responds to consumer preferences. It is in the best interest of consumers to allow this process to continue with as little direct interference as possible. Actions such as aligning planning policies to support existing and desirable retail facilities represent the best means to accommodate changes in retail trends as they occur.



APPENDIX A

LISTING OF RETAIL FACILITIES  
IN MARKET AREA BY STATE BOARD  
OF EQUALIZATION CATEGORIES

LISTING OF STATE BOARD OF EQUALIZATION CATAGORIES  
FOR APPENDIX A

TYPE OF BUSINESS -----	S.B.E. CATAGORY -----
(NON- TAXABLE BUSINESSES, VACANCIES)	
APPAREL STORES	1
GENERAL MERCHANDISE STORES	2
DRUG STORES	3
FOOD STORES	4
PACKAGED LIQUOR STORES	5
EATING & DRINKING PLACES	6
HOME FURNISHINGS AND APPLIANCES	7
BUILDING MATERIALS & FARM IMPLEMENTS	8
AUTO DEALERS & SUPPLIES	9
SERVICE STATIONS	10
OTHER RETAIL STORES NOT CLASSIFIED ABOVE	11
ALL OTHER OUTLETS	12



TABLE A-1  
 CHULA VISTA MARKET AREA RETAIL SPACE  
 BY S.B.E. CATEGORIES

NAME	ADDRESS	CENTER TYPE	TYPE RETAIL	MARKET BASE	SBE GROUP	DIMENSIONS (IN FEET)			SQUARE FEET
						LENGTH	DEPTH		
ARCH PLAZA	1000 BROADWAY	STRIP	VACANT			75	40		3,000
NAPLES CENTER	1100 BROADWAY	STRIP	VACANT			64	137		8,768
MAIN CENTER	1700 BROADWAY	MIXED USE	VACANT			24	60		1,440
NAPLES CENTER	1100 BROADWAY	STRIP	VACANT			20	64		1,280
	1000 BROADWAY	MIXED USE	VACANT			20	43		860
	300 PALOMAR STREET	FREESTANDING	VACANT			60	10		600
	1000 BROADWAY	MIXED USE	VACANT			50	52		2,600
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			40	56		2,240
	200 PALOMAR STREET	SPECIALTY	VACANT			25	60		1,500
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			23	56		1,288
	1000 THIRD	SPECIALTY	VACANT			15	40		600
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			60	50		3,000
	1700 BROADWAY	MIXED USE	VACANT			42	40		1,680
BROADWAY POINT	1100 BROADWAY	STRIP	VACANT			25	56		1,400
	1100 BROADWAY	FREESTANDING	VACANT			30	100		3,000
	1700 BROADWAY	FREESTANDING	VACANT			40	40		1,600
PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	VACANT			75	156		11,700
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	VACANT			25	45		1,125
	1000 BROADWAY	FREESTANDING	VACANT			40	40		1,600
PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	VACANT			25	102		2,550
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			20	116		2,320
PALOMAR SQUARE	1300 BROADWAY	STRIP	VACANT			60	50		3,000
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VACANT			25	60		1,500
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VACANT			25	60		1,500
BIG BEAR CENTER	1300 THIRD	SPECIALTY	VACANT			34	40		1,360
BIG BEAR CENTER	1300 THIRD	CONVENIENCE	VACANT			46	50		2,300

	1100 THIRD AVENUE	VACANT	30	50	1,500
CAL-STORE PLAZA	900 BROADWAY	VACANT	86	40	3,440

VACANT TOTAL ----- 68,751

BROADWAY POINT	1100 BROADWAY	INSURANCE	17	56	952	R			
	1000 THIRD AVENUE	CHURCH	30	40	1,200	R			
	1000 BROADWAY	CONSTRUCTION	20	50	1,000	R			
VONS CENTER	1300 THIRD	BANK	55	67	3,685	R			
	1000 BROADWAY	VETERINARIAN	20	50	1,000	R			
VONS CENTER	1300 THIRD	FINANCE	17	67	1,139	R			
VONS CENTER	1300 THIRD	POST OFFICE	25	67	1,675	R			
MAIN CENTER	1700 BROADWAY	INSURANCE	18	40	720	R			
	1300 THIRD AVENUE	LIBRARY	60	40	2,400	R			
MAIN CENTER	1700 BROADWAY	OFFICE	24	40	960	R			
	1200 THIRD AVENUE	TAX	30	35	1,050	R			
PLAZA DEL REY	SE CORNER THIRD/OXFORD	DOCTOR	25	45	1,125	R			
	1300 THIRD AVENUE	REAL ESTATE	20	40	800	R			
	1000 THIRD AVENUE	CHURCH	25	40	1,000	R			
	1000 BROADWAY	TV	20	43	860	R			
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	VET	25	60	1,500	R			
	1300 THIRD AVENUE	REAL ESTATE	25	50	1,250	R			
	1300 THIRD AVENUE	BASEBALL CARDS	25	50	1,250	R			
NAPLES PLAZA	NW CORNER THIRD/NAPLES	CHURCH	50	50	2,500	R			
	1000 THIRD AVENUE	OPTICIAN	40	20	800	R			
	1000 BROADWAY	DWV	20	43	860	R			
	1200 THIRD AVENUE	OFFICE	30	50	1,500	R			
	1000 BROADWAY	FINANCE	40	43	1,720	R			
NAPLES CENTER	1100 BROADWAY	ADMINISTRATION	23	60	1,380	R			
	1000 BROADWAY	REAL ESTATE	20	43	860	R			
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	CLINIC	25	60	1,500	R			
	1000 THIRD AVENUE	INSURANCE	40	40	1,600	R			
	1000 THIRD AVENUE	TAX	50	40	2,000	R			
MAIN CENTER	1700 BROADWAY	INSURANCE	22	40	880	R			

MAIN CENTER	1700 BROADWAY	MIXED USE	DOCTOR	R	70	70	4,900
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	TAX	R	25	45	1,125
NAPLES CENTER	1100 BROADWAY	STRIP	AIR FORCE	R	40	64	2,560
	1008 MOSS/INDUSTRIAL	MIXED-USE	BEAUTY COLLEGE	R	49	60	2,940
MAIN CENTER	1700 BROADWAY	MIXED USE	DOCTOR	R	18	60	1,080
	1200 BROADWAY	SPECIALTY	TRAVEL	R	20	40	800
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	CABLE ADMIN.	R	30	45	1,350
MAIN CENTER	1700 BROADWAY	MIXED USE	TAX	R	18	40	720
BROADWAY POINT	1100 BROADWAY	STRIP	POST OFFICE	R	20	56	1,120
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NON-RETAIL TOTAL							55,761

PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	17	50	850
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	60	52	3,120
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	SHOES	R	31	137	4,247
MAIN CENTER	1700 BROADWAY	MIXED USE	BOOTS	R	86	40	3,440
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHS	R	44	67	2,948
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
BROADWAY POINT	1100 BROADWAY	STRIP	CLOTHES	R	60	56	3,360
	1000 THIRD AVENUE	STRIP	SHOES	R	20	40	800
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHES	R	40	67	2,680
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	CLOTHES	R	25	100	2,500
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	24	50	1,200
VONS CENTER	1300 THIRD	NEIGHBORHOOD	SHOES	R	43	67	2,881
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	SHOES	R	23	50	1,150
PALOMAR SQUARE	1300 BROADWAY	STRIP	JEWELRY	R	20	50	1,000
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	15	50	750
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	CLOTHES	R	40	107	4,280
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CLOTHES	R	48	50	2,400
	900 THIRD AVENUE	STRIP	JEWELRY	R	20	20	400
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	28	52	1,456
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	CLOTHES	R	52	52	2,704
	1000 THIRD AVENUE	FREESTANDING	CLOTHING MATERIAL	R	40	60	2,400



MAIN CENTER	1700 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	42	40	1,680
	1700 BROADWAY	FREESTANDING	MARKET	E	4	90	90	8,100
	1300 BROADWAY	CONVENIENCE	7-11	E	4	50	40	2,000
	INDUSTRIAL/BELVIA	CONVENIENCE	CONVENIENCE	E	4	50	40	2,000
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	BAKERY	E	4	52	52	2,704
	THIRD/MAIN	CONVENIENCE	CONVENIENCE	E	4	60	50	3,000
PALOMAR SQUARE	1700 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	60	40	2,400
BROADWAY POINT	1300 BROADWAY	STRIP	DONUT	E	4	20	50	1,000
	1100 BROADWAY	CONVENIENCE	CONVENIENCE	E	4	17	56	952
	THIRD/MONTGOMERY	CONVENIENCE	AM/PM	E	4	60	50	3,000

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EMPLOYMENT FOOD STORE TOTAL 26,836

	1300 THIRD AVENUE	CONVENIENCE	7-11	R	4	60	40	2,400
ARCH PLAZA	1000 BROADWAY	CONVENIENCE	7-11	R	4	50	60	3,000
	1000 BROADWAY	STRIP	ICE CREAM	R	4	19	40	760
NAPLES PLAZA	1000 BROADWAY	CONVENIENCE	CONVENIENCE	R	4	60	43	2,580
	NW CORNER THIRD/NAPLES	STRIP	DELI	R	4	60	45	2,700
VONS CENTER	1300 THIRD AVENUE	FREESTANDING	COUNTRY GROCERY	R	4	50	40	2,000
	1300 THIRD	NEIGHBORHOOD	GROCERY	R	4	157	213	33,441
	PALOMAR/THIRD	STRIP	DONUT	R	4	30	50	1,500
BIG BEAR CENTER	1200 THIRD AVENUE	STRIP	FOOD	R	4	30	35	1,050
	1300 THIRD	NEIGHBORHOOD	GROCERY	R	4	170	153	26,010
	1000 BROADWAY	FREESTANDING	BUTCHER SHOP	R	4	60	30	1,800
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	DELI	R	4	30	60	1,800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	BUTCHER	R	4	48	50	2,400
	THIRD/MONTGOMERY	FREESTANDING	FRUIT	R	4	30	40	1,200
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	PRODUCE	R	4	30	50	1,500
LONGS/VONS CENTER	1200 THIRD AVENUE	STRIP	BAKERY	R	4	30	35	1,050
	800 THIRD	NEIGHBORHOOD	ICE CREAM	R	4	22	60	1,320
LONGS/VONS CENTER	1000 THIRD AVENUE	FREESTANDING	DONUT	R	4	30	50	1,500
	800 THIRD	NEIGHBORHOOD	VONS	R	4	170	130	22,100
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	CANDY	R	4	14	50	700

RALPH'S CENTER	1200 BROADWAY	COMMUNITY	RALPH'S	R	4	170	325	55,250
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	ICE CREAM	R	4	25	60	1,500
	1200 THIRD AVENUE	STRIP	GROCERY	R	4	50	35	1,750
	1300 THIRD AVENUE	SPECIALTY	GROCERY	R	4	80	100	8,000

RESIDENTIAL FOOD STORE TOTAL ----- 177,311

EMPLOYMENT AND RESIDENTIAL FOOD STORE TOTAL ----- 204,147

PALOMAR SQUARE	1300 BROADWAY	STRIP	LIQUOR	R	5	40	116	4,640
BIG BEAR CENTER	1300 THIRD	CONVENIENCE	LIQUOR	R	5	50	50	2,500
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	LIQUOR	R	5	40	45	1,800
	THIRD/MAIN	CONVENIENCE	LIQUOR	R	5	45	50	2,250
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	LIQUOR	R	5	25	50	1,250
	1000 THIRD AVENUE	STRIP	LIQUOR	R	5	50	40	2,000

LIQUOR STORE TOTAL ----- 14,440

THIRD/TREMONT		FREESTANDING	FAST FOOD	E	6	30	45	1,350
1100 BROADWAY		FREESTANDING	PIZZA	E	6	50	90	4,500
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	52	2,600
	THIRD/MONTGOMERY	FREESTANDING	FAST FOOD	E	6	30	50	1,500
	200 PALOMAR STREET	SPECIALTY	RESTAURANT	E	6	50	60	3,000
PALOMAR SQUARE	1300 BROADWAY	STRIP	JACK IN THE BOX	E	6	40	100	4,000
BROADWAY POINT	1100 BROADWAY	STRIP	RESTAURANT	E	6	60	56	3,360
PALOMAR SQUARE	1300 BROADWAY	STRIP	KFC	E	6	50	80	4,000
	300 PALOMAR STREET	FREESTANDING	FAST FOOD	E	6	50	70	3,500
MAIN CENTER	INDUSTRIAL/BELVIA	CONVENIENCE	RESTAURANT	E	6	50	40	2,000
	1700 BROADWAY	MIXED USE	RESTAURANT	E	6	50	100	5,000
	1100 BROADWAY	FREESTANDING	RESTAURANT	E	6	50	90	4,500
BROADWAY POINT	1300 BROADWAY	FREESTANDING	RESTAURANT	E	6	60	100	6,000
MAIN CENTER	1100 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
	1700 BROADWAY	MIXED USE	PIZZA	E	6	18	40	720

BROADWAY POINT	1100 BROADWAY	STRIP	FAST FOOD	E	6	20	56	1,120
MAIN CENTER	1700 BROADWAY	MIXED USE	REST	E	6	26	60	1,560
	THIRD/MONTGOMERY	FREESTANDING	RESTAURANT	E	6	40	60	2,400
	200 PALOMAR STREET	SPECIALTY	PIZZA	E	6	25	60	1,500

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EMPLOYMENT EATING AND DRINKING TOTAL 53,730

	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
	1000 BROADWAY	FREESTANDING	RESTAURANT	R	6	60	90	5,400
	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
ARCH PLAZA	1000 BROADWAY	STRIP	RESTAURANT	R	6	40	40	1,600
	1200 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	70	3,500
	1000 BROADWAY	FREESTANDING	RESTAURANT	R	6	100	60	6,000
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FAST FOOD	R	6	20	50	1,000
	1000 THIRD	SPECIALTY	RESTAURANT	R	6	30	40	1,200
	1000 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	50	50	2,500
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	RESTAURANT	R	6	60	60	3,600
	1000 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	30	40	1,200
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	FAST FOOD	R	6	50	40	2,000
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	FAST FOOD	R	6	30	75	2,250
MAIN CENTER	1700 BROADWAY	MIXED USE	BAR	R	6	87	60	5,220
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	RESTAURANT	R	6	60	110	6,600
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	SANDWICH	R	6	17	60	1,020
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	MCDONALD'S	R	6	75	100	7,500
MAIN CENTER	1700 BROADWAY	MIXED USE	CLUB	R	6	95	60	5,700
	1000 THIRD AVENUE	FREESTANDING	BAR	R	6	30	45	1,350
BIG BEAR CENTER	1300 THIRD	SPECIALTY	RESTAURANT	R	6	41	40	1,640
	900 THIRD AVENUE	FREESTANDING	FAST FOOD	R	6	60	70	4,200
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FAST FOOD	R	6	24	50	1,200
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	PIZZA	R	6	25	100	2,500
	1100 BROADWAY	FREESTANDING	BAR	R	6	50	50	2,500
VONS CENTER	1300 THIRD	NEIGHBORHOOD	KFC	R	6	40	70	2,800
BIG BEAR CENTER	1300 THIRD	SPECIALTY	RESTAURANT	R	6	40	40	1,600
	1100 THIRD AVENUE	FREESTANDING	BAR	R	6	25	40	1,000

VONS CENTER	1300 THIRD	NEIGHBORHOOD	R	6	15	67	1,005
	1300 THIRD AVENUE	SPECIALTY	R	6	40	100	4,000
BIG BEAR CENTER	1300 THIRD	SPECIALTY	R	6	48	40	1,920
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	R	6	35	45	1,575
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	R	6	50	70	3,500
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	R	6	60	90	5,400
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	R	6	30	45	1,350
	1100 THIRD AVENUE	FREESTANDING	R	6	50	50	2,500
	1200 THIRD AVENUE	FREESTANDING	R	6	40	50	2,000
	PALOMAR/THIRD	STRIP	R	6	30	50	1,500
	1300 THIRD AVENUE	FREESTANDING	R	6	60	60	3,600
	1300 THIRD AVENUE	FREESTANDING	R	6	50	50	2,500
	1000 THIRD AVENUE	STRIP	R	6	120	60	7,200
	1000 THIRD AVENUE	STRIP	R	6	25	40	1,000
	1200 THIRD AVENUE	STRIP	R	6	50	60	3,000
	1000 THIRD AVENUE	FREESTANDING	R	6	40	50	2,000
	1000 THIRD AVENUE	STRIP	R	6	60	40	2,400
	1100 THIRD AVENUE	FREESTANDING	R	6	40	75	3,000
	1200 THIRD AVENUE	FREESTANDING	R	6	20	20	400
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	R	6	30	45	1,350
	1100 THIRD AVENUE	FREESTANDING	R	6	60	50	3,000
PRICE CLUB CENTER	1300 THIRD AVENUE	STRIP	R	6	30	40	1,200
	1200 BROADWAY	SPECIALTY	R	6	12	50	600
	1200 THIRD AVENUE	STRIP	R	6	50	35	1,750
RESIDENTIAL EATING AND DRINKING TOTAL							139,830

RESIDENTIAL EATING AND DRINKING TOTAL 139,830

EMPLOYMENT AND RESIDENTIAL EATING AND DRINKING TOTAL 193,560

PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	R	7	123	100	12,300
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	R	7	36	50	1,800
	1200 BROADWAY	SPECIALTY	R	7	62	165	10,230
	1100 THIRD AVENUE	FREESTANDING	R	7	30	50	1,500
	1100 THIRD AVENUE	FREESTANDING	R	7	20	40	800



	1200 THIRD AVENUE	FREESTANDING	APPLIANCE PARTS	R	7	50	60	3,000
	1200 THIRD AVENUE	FREESTANDING	FURNITURE	R	7	50	75	3,750
TROLLEY SQUARE	700 PALOMAR STREET	SPECIALTY	STEREO	R	7	28	52	1,456
PRICE CLUB CENTER	1200 BROADWAY	COMMUNITY	LEVITZ	R	7	151	196	29,596
VONS CENTER	1300 THIRD	NEIGHBORHOOD	FURNITURE	R	7	60	268	16,080
	1300 THIRD AVENUE	FREESTANDING	FURNITURE	R	7	45	50	2,250
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	TV	R	7	60	45	2,700
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	STEREO	R	7	30	60	1,800
	1200 THIRD AVENUE	STRIP	TV	R	7	40	50	2,000
	1000 BROADWAY	FREESTANDING	FURNITURE	R	7	100	60	6,000
PLAZA DEL REY	SE CORNER THIRD/OXFORD	STRIP	STEREO	R	7	60	45	2,700
	THIRD/MOSS	FREESTANDING	FURNITURE	R	7	100	258	25,800
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	TV	R	7	40	45	1,800
	1000 THIRD AVENUE	MIXED-USE	TV	R	7	40	40	1,600
BROADWAY POINT	1100 BROADWAY	STRIP	FURNITURE	R	7	60	56	3,360
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	STEREO	R	7	91	117	10,647
HOME FURNISHINGS TOTAL								141,169

PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	HARDWARE	R	8	32	102	3,264
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	HARDWARE	R	8	153	201	30,753
	1000 THIRD	SPECIALTY	HARDWARE	R	8	30	40	1,200
	1000 THIRD	SPECIALTY	HARDWARE	R	8	60	40	2,400
PALOMAR VILLAGE	700 PALOMAR STREET	SPECIALTY	HARDWARE	R	8	102	54	5,508
PRICE CLUB CENTER	1200 BROADWAY	COMMUNITY	HOME CLUB	R	8	487	235	114,445
BUILDING MATERIALS TOTAL								157,570

	1000 THIRD AVENUE	STRIP	AUTO PARTS	R	9	50	40	2,000
	1000 BROADWAY	FREESTANDING	AUTO DEALER	R	9			0
RALPH'S CENTER	1200 BROADWAY	COMMUNITY	AUTO TIRES	R	9	50	110	5,500
BROADWAY POINT	1100 BROADWAY	STRIP	AUTO PARTS	R	9	14	56	784
	1000 THIRD	SPECIALTY	AUTO PARTS	R	9	15	40	600



BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	VACUUM	R	11	15	100	1,500
	1300 THIRD AVENUE	FREESTANDING	KEY SHOP	R	11	50	40	2,000
	1000 THIRD AVENUE	STRIP	POOL	R	11	25	40	1,000
PALOMAR SQUARE	1300 BROADWAY	STRIP	FLORIST	R	11	18	55	990
	1100 BROADWAY	FREESTANDING	TOY STORE	R	11	72	100	7,200
	1700 BROADWAY	MIXED USE	VIDEO	R	11	42	40	1,680
	1000 THIRD AVENUE	STRIP	PET	R	11	30	40	1,200
	1300 THIRD AVENUE	STRIP	PET STORE	R	11	25	50	1,250
	1000 THIRD AVENUE	STRIP	COMPUTER	R	11	30	40	1,200
	1200 BROADWAY	SPECIALTY	VIDEO	R	11	80	40	3,200
BIG BEAR CENTER	1300 THIRD	NEIGHBORHOOD	PHOTO	R	11	20	100	2,000
	1000 THIRD AVENUE	STRIP	ANTIQUES	R	11	20	45	900
NAPLES CENTER	1100 BROADWAY	STRIP	KITCHEN	R	11	20	64	1,280
	1100 THIRD AVENUE	FREESTANDING	TOY	R	11	20	40	800
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	GIFTS	R	11	50	60	3,000
	1100 BROADWAY	FREESTANDING	TOY	R	11	72	100	7,200
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	VIDEO	R	11	30	60	1,800
BROADWAY POINT	1100 BROADWAY	STRIP	FLOWER	R	11	19	56	1,064
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	PET	R	11	30	60	1,800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	FLOWERS	R	11	17	50	850
	200 PALOMAR STREET	SPECIALTY	FLOWER	R	11	25	60	1,500
	900 THIRD AVENUE	STRIP	AUTO GLASS	R	11	50	20	1,000
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	GIFT	R	11	20	34	680
PALOMAR SQUARE	1300 BROADWAY	STRIP	VIDEO	R	11	55	116	6,380
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	GIFT	R	11	15	60	900
	1200 BROADWAY	SPECIALTY	GLASSES	R	11	20	40	800
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	BABY	R	11	30	50	1,500
	1200 BROADWAY	SPECIALTY	GIFT	R	11	16	40	640
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	PARTY GOODS	R	11	25	50	1,250
	1008 MOSS/INDUSTRIAL	MIXED-USE	TOY STORE	R	11	171	90	15,390
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	GIFTS	R	11	12	50	600
PALOMAR SQUARE	1300 BROADWAY	STRIP	PRINT	R	11	20	55	1,100
PRICE CLUB CENTER	1200 BROADWAY	SPECIALTY	ART	R	11	30	50	1,500
	1000 THIRD AVENUE	MIXED-USE	COMPUTER	R	11	50	40	2,000
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	OFFICE SUPPLIES	R	11	50	60	3,000

MAIN CENTER	1700 BROADWAY	MIXED USE	TOY STORE	R	11	18	40	720
	1300 THIRD AVENUE	STRIP	TROPHY	R	11	25	50	1,250
CAL-STORE PLAZA	900 BROADWAY	SPECIALTY	SPORTS	R	11	75	231	17,325
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	VIDEO	R	11	25	45	1,125

RESIDENTIAL'S OTHER RETAIL STORES TOTAL  
 -----  
 132,279  
 -----  
 138,103

EMPLOYMENT AND RESIDENTIAL'S OTHER RETAIL STORES TOTAL								
	1000 BROADWAY	STRIP	PRINTING	R	12	20	50	1,000
	1300 BROADWAY	CONVENIENCE	DRY CLEANERS	E	12	50	40	2,000

EMPLOYMENT'S OTHER OUTLETS TOTAL  
 -----  
 3,000

PALOMAR SQUARE	1300 BROADWAY	STRIP	BEAUTY	R	12	20	50	1,000
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	HAIR	R	12	30	45	1,350
VONS CENTER	1300 THIRD	NEIGHBORHOOD	HAIR	R	12	18	67	1,206
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	BEAUTY	R	12	30	40	1,200
	1300 THIRD AVENUE	STRIP	PRINTING	R	12	30	40	1,200
HEALTH SPA CENTER	1100 THIRD AVENUE	STRIP	HEALTH SPA	R	12	50	40	2,000
VONS CENTER	1300 THIRD	NEIGHBORHOOD	CLEANERS	R	12	29	67	1,943
	900 BROADWAY	STRIP	PEST CONTROL	R	12	40	50	2,000
	1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	30	30	900
	1000 BROADWAY	FREESTANDING	UPHOLSTERY	R	12	40	30	1,200
	1000 THIRD	SPECIALTY	PRINT	R	12	20	40	800
NAPLES PLAZA	NW CORNER THIRD/NAPLES	STRIP	NAILS	R	12	25	45	1,125
	1100 THIRD AVENUE	FREESTANDING	TV REPAIR	R	12	50	45	2,250
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	CLEANERS	R	12	24	60	1,440
	1000 THIRD AVENUE	FREESTANDING	PLUMBING	R	12	50	40	2,000
LONGS/VONS CENTER	800 THIRD	NEIGHBORHOOD	HAIR	R	12	15	60	900
	1000 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	60	15	900
PAC. COMMERCE BANK PLAZA	NW CORNER THIRD/OXFORD	STRIP	BOUTIQUE	R	12	25	60	1,500
	1000 BROADWAY	MIXED USE	LAUNDRY	R	12	42	46	1,932

900 BROADWAY	STRIP	AUTO BODY	R	12	20	60	1,200
1100 THIRD AVENUE	FREESTANDING	BARBER	R	12	20	40	800
1100 BROADWAY	STRIP	ARCADE	R	12	60	64	3,840
1100 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	30	120	3,600
1300 THIRD	NEIGHBORHOOD	LAUNDRY	R	12	20	100	2,000
1300 THIRD AVENUE	STRIP	INTERIOR DESIGN	R	12	25	50	1,250
1000 THIRD AVENUE	STRIP	HAIR	R	12	30	40	1,200
1300 THIRD AVENUE	STRIP	SHOE REPAIR	R	12	25	50	1,250
1000 THIRD AVENUE	STRIP	CLEANERS	R	12	30	40	1,200
1000 THIRD AVENUE	STRIP	PRINTING	R	12	40	45	1,800
1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
1000 THIRD AVENUE	STRIP	HAIR	R	12	25	45	1,125
1700 BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	100	5,000
1200 BROADWAY	SPECIALTY	HAIR	R	12	20	40	800
1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	R	12	40	70	2,800
1300 THIRD AVENUE	STRIP	BEAUTY	R	12	25	50	1,250
1300 THIRD	NEIGHBORHOOD	TAILOR	R	12	18	67	1,206
1300 THIRD AVENUE	STRIP	LOCKSMITH	R	12	25	50	1,250
900 BROADWAY	STRIP	BEAUTY SALON	R	12	40	50	2,000
MAIN ST./BROADWAY	FREESTANDING	AUTO REPAIR	R	12	50	50	2,500
SE CORNER THIRD/OXFORD	STRIP	TV REPAIR	R	12	30	45	1,350
1200 THIRD AVENUE	STRIP	HAIR	R	12	30	35	1,050
900 BROADWAY	STRIP	MESSAGE	R	12	20	60	1,200
1200 THIRD AVENUE	STRIP	PRINTING	R	12	40	50	2,000
1200 BROADWAY	SPECIALTY	NAILS	R	12	14	50	700
900 THIRD AVENUE	STRIP	DRIVING SCHOOL	R	12	20	20	400
1300 THIRD	NEIGHBORHOOD	HAIR	R	12	30	100	3,000
1700 BROADWAY	MIXED USE	AUTO REPAIR	R	12	42	40	1,680
900 BROADWAY	FREESTANDING	UPHOLSTERY	R	12	20	40	800
1000 BROADWAY	FREESTANDING	AUTO BODY	R	12	50	120	6,000
1000 THIRD AVENUE	STRIP	LAUNDRY	R	12	30	40	1,200
1300 THIRD AVENUE	STRIP	LAUNDROMAT	R	12	40	90	3,600
1300 THIRD	NEIGHBORHOOD	HAIR	R	12	25	60	1,500
1300 THIRD AVENUE	STRIP	CLEANERS	R	12	20	50	1,000
SE CORNER THIRD/OXFORD	STRIP	HAIR	R	12	25	45	1,125

Address	Property Type	Category	Count	Rate	Total
1000 BROADWAY	FREESTANDING	AUTO REPAIR	12	40	2,400
PAC. COMMERCE BANK PLAZA NW CORNER THIRD/OXFORD	STRIP	KARATE	12	25	1,500
1100 BROADWAY	FREESTANDING	AUTO REPAIR	12	40	2,400
1100 THIRD AVENUE	FREESTANDING	AUTO REPAIR	12	50	3,000
1200 THIRD AVENUE	FREESTANDING	AUTO REPAIR	12	30	1,800
1300 THIRD AVENUE	CONVENIENCE	HAIR	12	20	800
PLAZA DEL REY	STRIP	HAIR	12	25	1,125
SE CORNER THIRD/OXFORD	STRIP	LAUNDRY	12	70	3,150
NAPLES PLAZA	STRIP	TRAVEL	12	25	1,125
PLAZA DEL REY	STRIP	HAIR	12	30	1,200
1000 THIRD AVENUE	STRIP	HAIR	12	20	800
ARCH PLAZA	SPECIALTY	HAIR	12	15	780
TROLLEY SQUARE	STRIP	TRANSMISSION	12	20	1,400
700 PALOMAR STREET	STRIP	AUTO REPAIR	12	50	4,000
1300 THIRD AVENUE	FREESTANDING				
THIRD/TREMONT					
RESIDENT'S OTHER OUTLETS TOTAL					117,502
RESIDENT AND EMPLOYMENT'S OTHER OUTLETS TOTAL					120,502
MONTGOMERY TOTAL					1,614,453
MONTGOMERY RESIDENTIAL TOTAL					1,456,312
MONTGOMERY EMPLOYMENT TOTAL					89,390

**APPENDIX E**  
**Preliminary Drainage Analysis**





Vaughn F. Johnson  
land development consultant

(619) 670-1318  
P.O. Box 1612  
Spring Valley, CA 92078

January 5, 1989

Phil Hinshaw  
A.D. Hinshaw and Assoc.  
6136 Mission Gorge Rd. Ste. 111  
San Diego, California 92120

Re: Preliminary Drainage Analysis for the proposed "Palomar  
Trolley Center"

Dear Phil,

At your request I have performed a "Preliminary Drainage Analysis" for the proposed "Palomar Trolley Center". The Trolley Center is located on Palomar St. approximately 400' east of Industrial Ave., in the city of Chula Vista.

The site is relatively flat, sloping east to southwest at a grade of less than 2%. It is my understanding that the property is currently being used for agricultural farming. There is an existing unimproved drainage swale along the southerly most property line and an existing 48" RCP along the westerly property line. The drainage swale and 48" pipe join at the southwesterly most corner of the property, flowing into a 60" CMP. (See Preliminary Site & Grading Plan Dated 2-23-88) The 60" pipe flows into a large sump 500' or so to the south of the project. That sump is the concentration point for "Southwest Drainage Basin", as shown on sheet 27-83 of the drainage study maps prepared by Lawrence, Fogg, Florer & Smith. The " $Q_{50}$ " at that point is 231cfs (cubic feet per second). The sump is drained by two pipes, a 66" CMP @ 0.55% and a 36" RCP @ 1.71%. Preliminary calculations indicate the existing facilities to be inadequate for the " $Q$ " given in the "L,F,F&S" study.

The attached preliminary hydrology calculations reflect an increase of 13cfs for " $Q_{10}$ " & 17cfs for " $Q_{50}$ ". As noted above the existing pipes are undersized for the existing " $Q_{50}$ " so any increase in drainage quantity will only worsen that condition. It should also be noted that even though the existing facility is undersized, lower flows (" $Q_{10}$ ") can pass with no problem & higher flows will pond for a given period before passing.

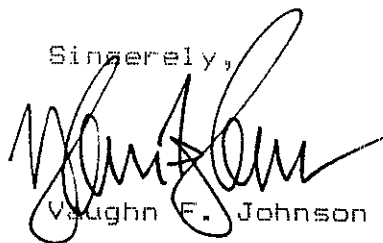
Reminder, these assumptions are based on exist records on file with the city of Chula Vista and a drainage study prepared more than 20 years ago. Because of the more recent devleopment adjacent to this site I recommend that a more thorough hydrology study be done to help determine the downstream effects of the proposed project.

I hope this information will help you in the completion of

(cont.)

your E.I.R.. Should you have any questions or need further assistance, please call (670-1318). Thank you for the opportunity to serve you.

Sincerely,

A handwritten signature in black ink, appearing to read "Vaughn F. Johnson", written in a cursive style.

Vaughn F. Johnson

Jan, 5, 1989

89-100

## Palomar Trolley Center Preliminary Drainage Study

### References

1. City of Chula Vista Drainage Design Manual
2. Brater & King's Handbook of Hydraulics
3. Lawrence, Fogg, Florer & Smith Drainage Study prepared for the City of Chula Vista (1965)  
"Southwest Basin," ~ B-13" Drainage Area Map No 27-83
4. Drainage Basin Less than 200 acres,  $Q_{50} = C.I.A.$
6. City of Chula Vista Drawing No 85-13, Sht 5 of 5
- 7 M.T.D.B. Job No 13449, Drawing No C-203-Rev B
- 8

### Hydrology

#### Existing

$$C = 0.35 \text{ (Farmland)} \quad A = 12.23 \text{ acres}, \quad T_c = 60 \left( \frac{11.9 \cdot L^3}{H} \right)^{0.385}$$
$$= 60 \left( \frac{11.9 \cdot 2652^3}{12} \right)^{0.385}, \quad = 12.9 + 3 = 16 \text{ min. } I_{50} = 2.5 \text{ in}$$

$$I_{10} = 2.0 \text{ in}, \quad Q_{10} = 0.35 \cdot 2.0 \cdot 12.23 = 8.6 \text{ Say } \underline{9 \text{ cfs}}$$

$$Q_{50} = 0.35 \cdot 2.5 \cdot 12.23 = 10.7 \text{ Say } \underline{11 \text{ cfs}}$$

#### Proposed Development

$$C = 0.90 \text{ (paved surface)} \quad A = 12.23 \text{ acres} \quad I_{10} = 2.0$$

$$I_{50} = 2.5, \quad Q_{10} = 0.90 \cdot 2.0 \cdot 12.23 = 22 \quad Q_{10} = \underline{22 \text{ cfs}}$$

$$Q_{50} = 0.90 \cdot 2.5 \cdot 12.23 = 27.5 \text{ Say } \underline{28 \text{ cfs}}$$

$$\text{Net Runoff impact } Q_{10} = \underline{13 \text{ cfs}}$$

$$\text{Net Runoff impact } Q_{50} = \underline{17 \text{ cfs}}$$

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