

FINAL REPORT  
TRAFFIC IMPACT STUDY  
THIRD HIGH SCHOOL DEVELOPMENT PROJECT  
CITY OF LA QUINTA

NOVEMBER, 1989

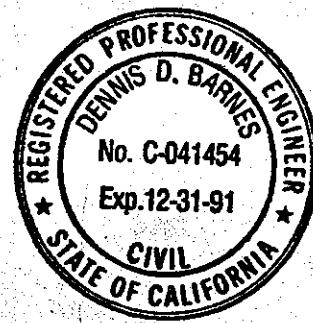
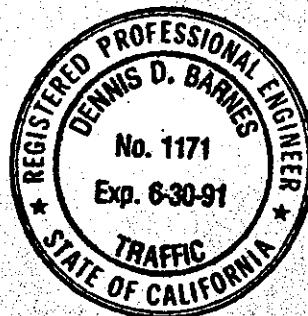
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TRAFFIC IMPACT STUDY  
THIRD HIGH SCHOOL DEVELOPMENT PROJECT  
CITY OF LA QUINTA

INTRODUCTION

This study was performed for the purpose of determining the traffic and circulation impacts associated with the planned Third High School Development Project in the Desert Sands Unified School District, and located in the City of La Quinta, California. A visual inspection was made of the Project area as well as the streets and highways which will service the proposed development. Existing traffic volume data was obtained from the subconsultant Traffic Counts Incorporated, Caltrans and the City of La Quinta.

Forecast traffic volumes were distributed and assigned to Project area roadways based on current site area population densities, new manual turning movement counts as well as a review of the existing travel patterns and street networks. Existing and future volume to capacity relationships were evaluated at five key Project intersections by means of the Intersection Capacity Utilization (ICU) method.

In addition, specific recommendations were made concerning the adequacy of on and off-site traffic controls as well as site access. This traffic impact study directly takes into account the impact of other future developments in the Study Area. Specifically, a growth factor of ten percent per year was applied to the existing traffic volumes to establish the growth background traffic in the Study Area assuming a seven year build out (1996) and occupancy of the proposed development.

PROJECT DESCRIPTION AND LOCATION

As currently proposed, the Third High School site in the Desert Sands Unified School District would consist of approximately 40 acres devoted to serve the educational needs of the City of La Quinta, California. The site will be situated on a vacant parcel of land located in the southwest quadrant of the intersection of

Dune Palms Road and Westward Ho Drive. The site will be bordered on the west by Adams Street, a proposed secondary north-south arterial.

Primary access to the site will be provided by Westward Ho Drive just west of the Dune Palms Road. Exhibit 1 illustrates the overall Project site location while Exhibit 2 illustrates the conceptual site plan for the proposed Third High School Project.

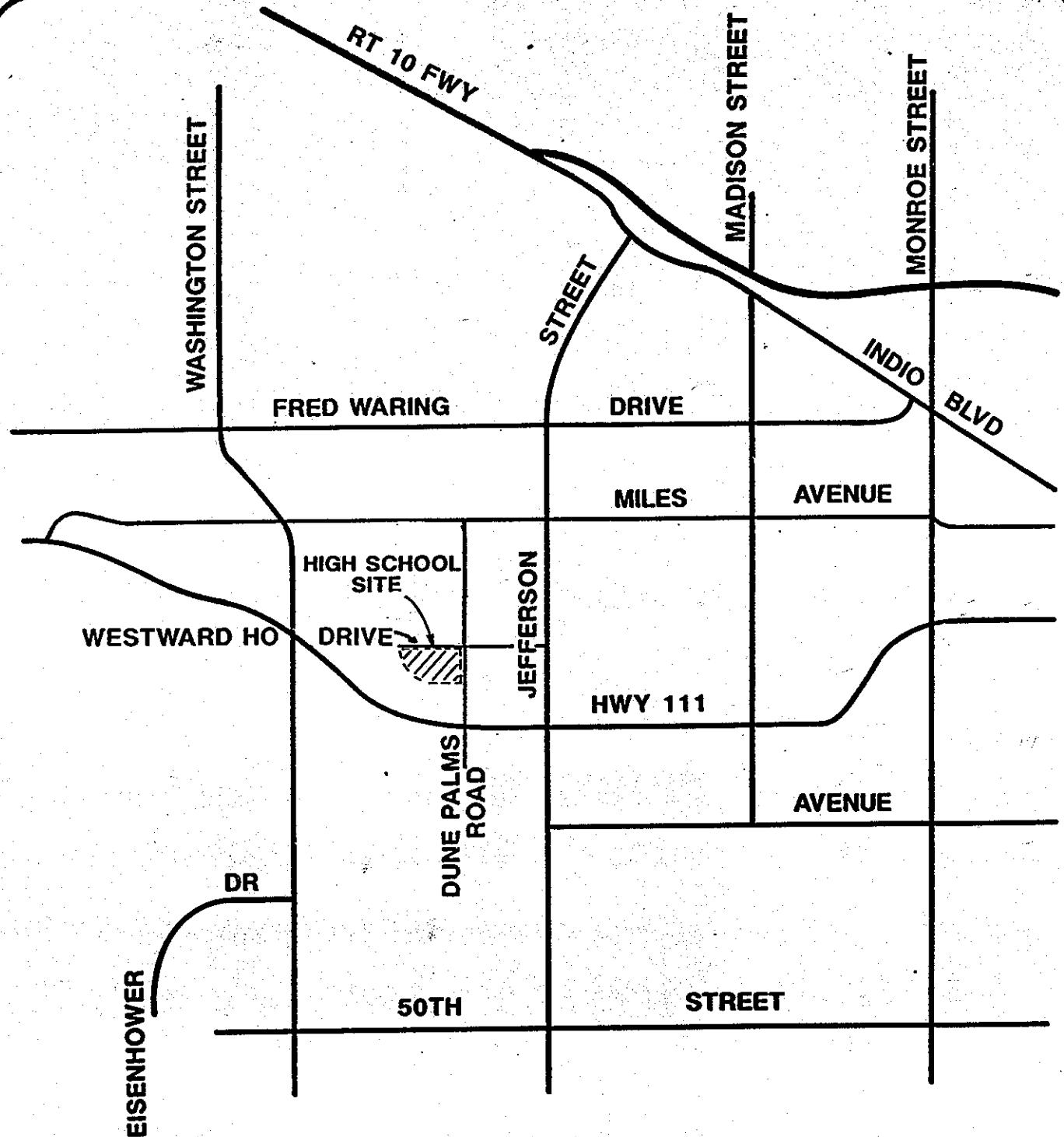
#### AREA DEVELOPMENT

The proposed high school Project will occupy approximately 40 acres of vacant land (See Exhibit 2). The City's Planning Department has determined that the proposed land use (school site) is compatible with its contiguous residential land uses. Based upon information from the Desert Sands Unified School District, it has been assumed that the school site would be developed in four phases. The first phase is expected to begin in 1990 and continue through 1993 consisting of 120,000 square feet of school and site development. Phase two begins construction in 1993 and ends after one year with an interim addition of 30,000 square feet. Phase three would start at this time and provide a building addition of 20,000 square feet. The final phase four will be the ultimate completion of the site with the addition of buildings, interim facilities, a stadium and other recreational facilities to be constructed by August 1996. For purposes of this traffic impact study, phases three and four of the Project were combined to analyze the potential traffic impacts.

#### EXISTING STREET NETWORK

##### Regional Access Roadways

The State Highway 111 provides regional access to the school site. Located south of the site, State Highway 111 runs in an east-west direction and currently services site area traffic volumes on the order of 24,620 vehicles per day (updated traffic



LOCATION MAP

EXHIBIT 1



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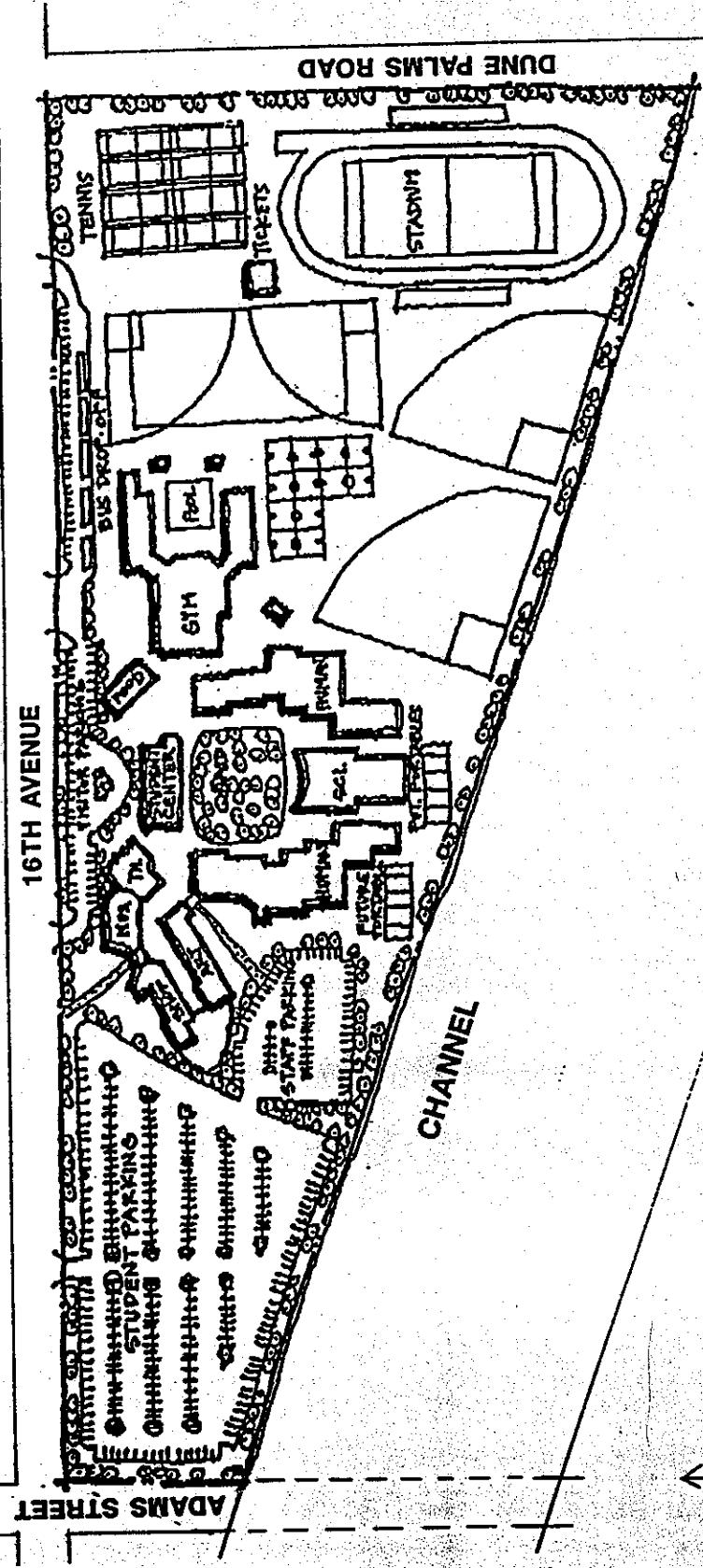
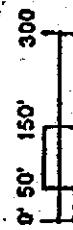
# EXHIBIT 2

## SITE PLAN

### SCHEMATIC SITE STUDY

LA QUINTA HIGH SCHOOL  
DESERT SANDS U.S.D.

NORTH  
SCALE: 1" = 200'



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volumes from Caltrans, 1986). A four-lane cross-section is provided with primary site area access provided at Dune Palms Road.

Local Access Roadways

Westward Ho Drive is an east-west collector roadway located adjacent to the Project site within the City limits of La Quinta. Hence, Westward Ho Drive provides a direct link to the Project site. Presently, this undivided roadway provides one eastbound and one westbound travel lane and services daily traffic volumes on the order of approximately 500 vehicles per day.

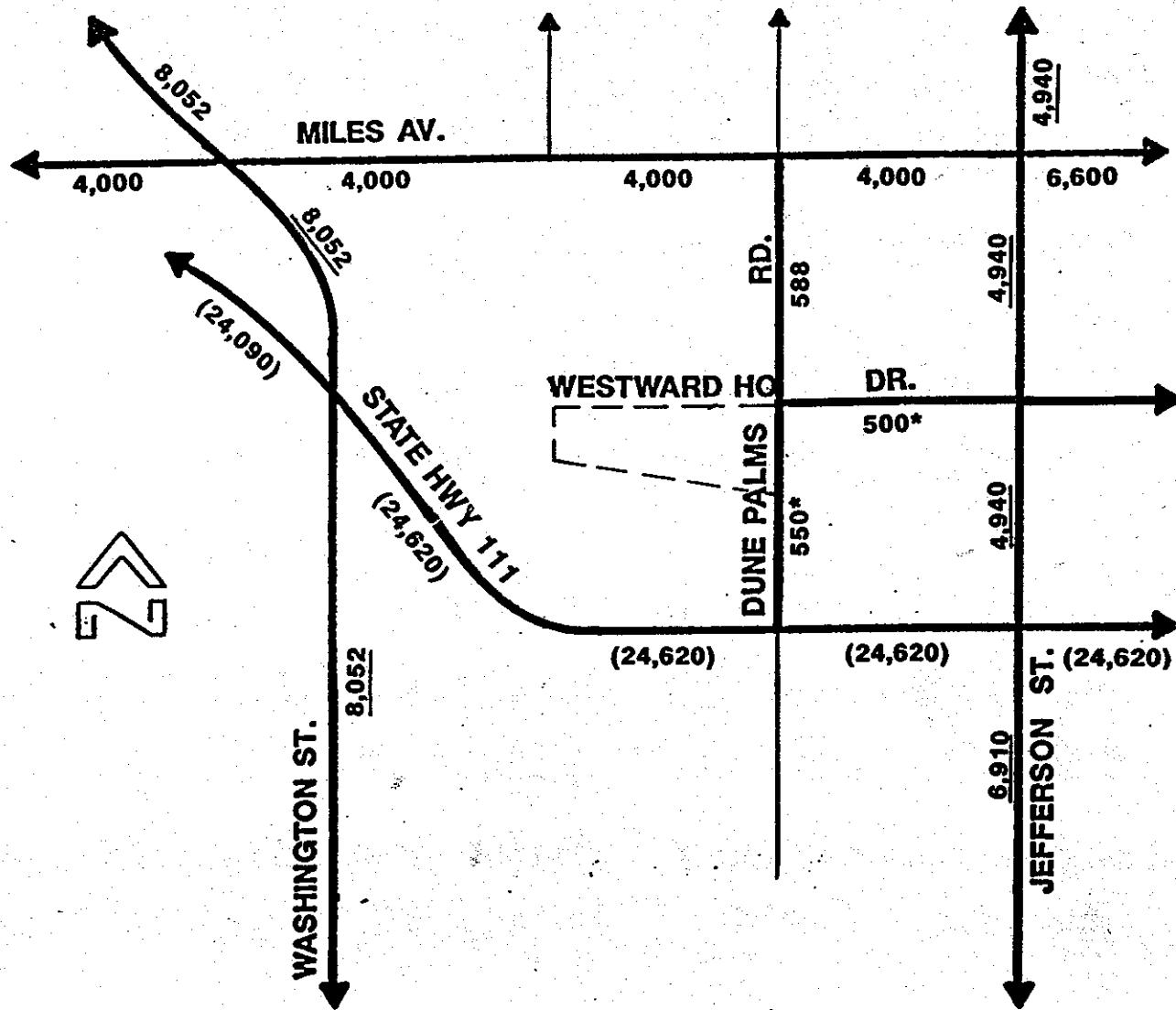
Dune Palms Road is currently a two way, two lane, secondary arterial located adjacent to the Project site which intersects Highway 111. This designated arterial provides one northbound and one southbound travel lane in each direction between Highway 111 and Miles Avenue. Dune Palms Road is currently servicing traffic volumes on the order of 590 vehicles per day west of Jefferson Street.

Miles Avenue is a main east-west primary arterial roadway located north of the Project site. Miles Avenue is currently servicing traffic volumes on the order of 4,000 vehicles per day west of Jefferson Street. Eastbound and Westbound traffic is provided by one travel lane in each direction.

Adams Street is a proposed north-south secondary arterial to be located on the west side of the Project site. This street will provide access to the possible future residential neighborhood to the north and to the Project site itself after it is constructed.

The existing average daily traffic volumes on the local roadways in the Study Area are shown in Exhibit 3.

Exhibit 4 depicts the existing peak hour turning movement counts at the key Project intersections.



### EXISTING AVERAGE DAILY TRAFFIC VOLUMES

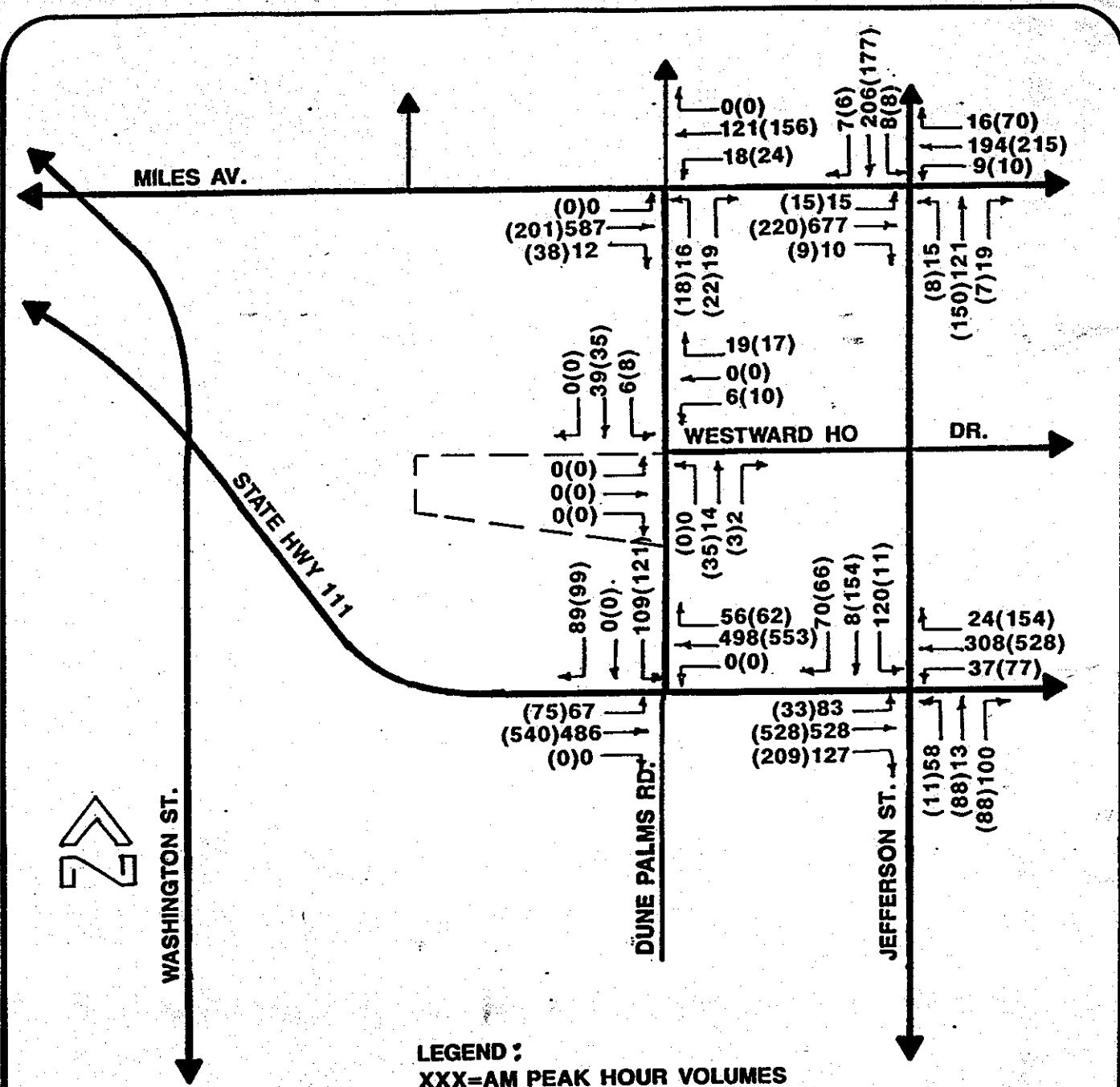
**EXHIBIT 3**

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### EXISTING PEAK HOUR VOLUMES AT KEY INTERSECTIONS

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**EXHIBIT 4**

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### TRAFFIC GENERATION FORECAST

The traffic generation potential of the Third High School Project is expressed in vehicle trip ends, where a trip end is a one-way vehicular movement either entering or departing a particular land use. Each vehicle trip has two ends, one at its origin and one at its destination.

The traffic generation potential for the school site is further expressed in terms of trips per student. The generation rates shown herein are based on data published by the Institute of Transportation Engineers (ITE) and contained in the Trip Generation Manual, Fourth Edition, and assume full development and occupancy of the site in each phase. For the purpose of assessing the overall impact of the proposed Third High School Project, the school site's trip generation was evaluated for the worst case of a phase three and four traffic condition (maximum of 2,400 students).

Table 1 presents the traffic generation forecast relative to the proposed 40 acres of high school development on an AM peak hour, PM peak hour, and 24-hour basis. The forecast also illustrates the incremental increase in vehicle trips at each phase of the site's development.

Since the school site will be developed in four phases, the amount of trips generated from each phase will vary accordingly to the addition of students. Under phase 1, the proposed Project would generate an estimated total of approximately 2,100 vehicle trips per day, with varying distributions of inbound and outbound movements. During the AM peak hour, a total of 599 trips would be generated (389 inbound - 210 outbound) while the PM peak hour would generate an estimated total of 62 trips (23 inbound - 39 outbound). Under phase two, the proposed Project would generate an estimated total of 2,620 vehicle trips per day with varying distributions of inbound and outbound movements. During the AM peak hour, 486 inbound vehicles and 262 outbound trips will be generated; while the PM peak hour would generate 29 inbound trips and 49 outbound trips. Finally, after the ultimate

**TABLE 1**  
**TRIP GENERATION FORECAST**  
**PROJECT TRAFFIC**

**THIRD HIGH SCHOOL DEVELOPMENT PROJECT**

DEVELOPMENT COMPONENT/STUDENTS	DAILY 2-WAY RATE	TRIPS	AM PEAK HOUR			PM PEAK HOUR		
			INBOUND	OUTBOUND	% TRIPS	INBOUND	OUTBOUND	% TRIPS
<b>SCHOOL</b>								
PHASE I/1,512	1.385	2,094	65	389	35	210	37	23
PHASE II/1,890	1.385	2,618	65	486	35	262	37	29
PHASE III & IV/2,400	1.385	3,324	65	618	35	333	37	36

DATA SOURCE IS ITE:

"Trip Generation, Fourth Edition, "Institute of Transportation Engineers, 1987.

completion of the school Project, an estimated total of 3,324 vehicle trips per day is forecasted. During the AM peak hour the generated inbound and outbound vehicle trips are 618 and 333, respectively. For the PM peak hour, there are a total of 36 inbound and 62 outbound vehicle trips.

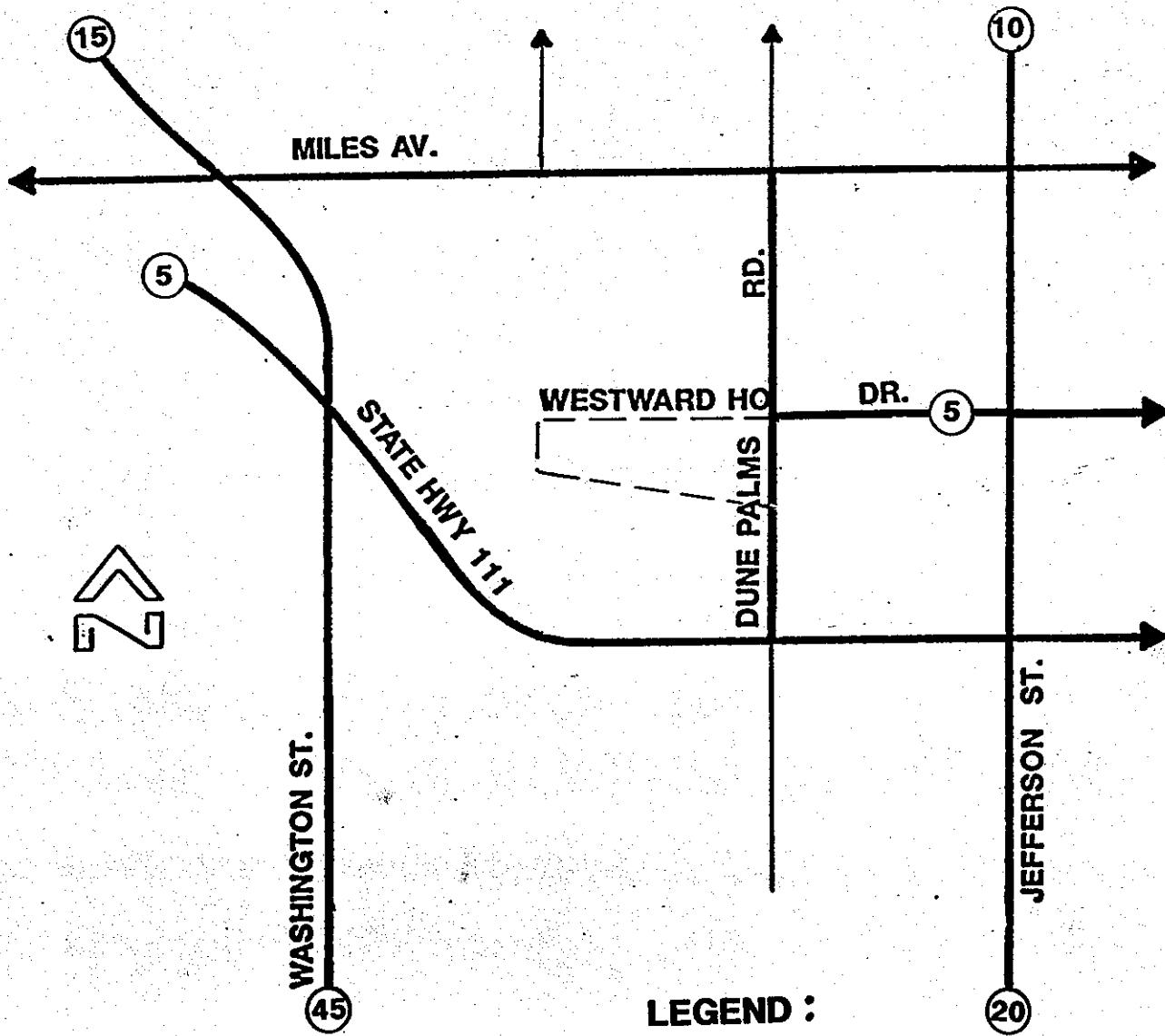
#### TRAFFIC DISTRIBUTION AND ASSIGNMENTS

The distribution and assignment of the forecast Project traffic volumes was based on a review of existing peak hour travel patterns suggested by available arterial traffic data, a review of the existing street and highway system, an analysis of the proposed access points to the site, a review of the new manual turning movement counts, and discussions with City staff. The spatial distribution of trips was also based on the density and location of existing residential developments within the service area of the Project.

Exhibit 5 illustrates the expected geographical distribution of the Project traffic volumes, expressed as a percentage of the traffic forecast presented in Table 1. As shown, the estimated traffic distribution would include 25% of the Project traffic oriented to and from areas north of the proposed development, with 5% being oriented to and from the west. An estimated 5% of the Project traffic would arrive and depart from the east while the remaining 65% would arrive and depart from areas located to the south.

Exhibit 6 illustrates the Project traffic assignment and distribution which results from using the previous geographic traffic distribution for the Project traffic volumes.

In order to account for the normal growth and other approved and/or pending Projects that are unknown at this time in the Study Area, a growth factor of ten percent per year was applied to the existing traffic volumes to establish the growth background traffic assuming a seven year build out and occupancy of the proposed development.



**NOTE :**

- — — PROJECT BOUNDARY
- — CURRENT ROADWAY NETWORK
- DIRT ROAD

**GEOGRAPHIC TRAFFIC DISTRIBUTION**

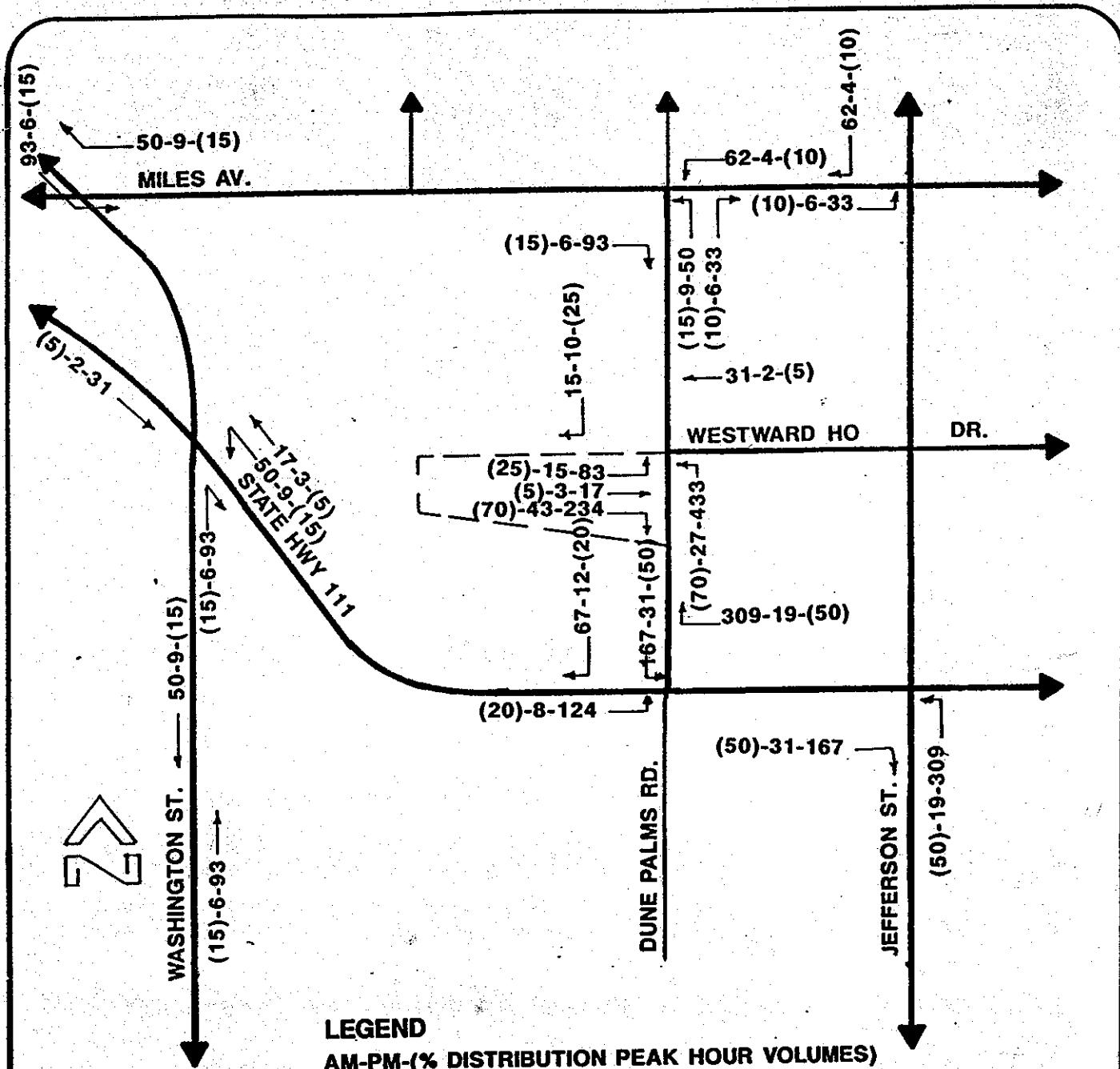
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**LEGEND**  
**AM-PM-(% DISTRIBUTION PEAK HOUR VOLUMES)**

## PROJECT TRAFFIC ASSIGNMENT AND DISTRIBUTION



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**EXHIBIT 6**

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### TRAFFIC ANALYSIS

In order to evaluate the traffic impacts associated with the Third High School Development Project, an analysis of the key Project area intersections was performed for both the AM and PM peak hours. The following table summarizes the key Project intersections.

TABLE 2  
KEY PROJECT AREA INTERSECTIONS

1. Dune Palms Road and Westward Ho Drive
2. Dune Palms Road and Miles Avenue
3. Dune Palms Road and State Highway 111
4. Jefferson Street and Miles Avenue
5. Jefferson Street and State Highway 111

The analysis procedure used in this study was the Intersection Capacity Utilization (ICU) method, which assumes the right-of-way assignment characteristics of a signalized intersection and computes a Level of Service for an entire intersection based upon a volume to capacity ratio summation for key conflicting movements. Level of Service is defined as a relative measure of driver satisfaction which ranges from "A" (free flow: ICU less than 0.60) to "F" (forced flow: ICU value in excess of 1.0). Level of Service "D" (ICU of 0.80 to 0.90) is traditionally considered the minimum acceptable level for urban peak hour conditions. At that level, most traffic clears on the first available green phase, but short accumulations of vehicles may occur. Average speed is on the order of 20 to 25 miles per hour including stops. Level of Service "E" is characterized by long queues of waiting vehicles which exist over extended periods of time (often blocking a nearby intersection and requiring several cycles to clear). A complete discussion of the ICU technique and Level of Service concept is presented in the Appendix to this report.

ICU calculations have been performed for the key Project intersections under the following conditions:

1. Existing
2. Existing + Project
3. Existing + Growth + Project
4. Existing + Growth + Project + Adjacent Projects

#### EXISTING TRAFFIC

Existing traffic volume data used in the analysis was obtained from subconsultant Traffic Counts Incorporated, Caltrans, and the City of La Quinta.

Table 3 presents the Level of Service (LOS) summary for the key Project area intersections for which detailed worksheets are presented in the Appendix. As shown, all key Project intersections are currently operating at Level of Service "A" during both the AM and PM peak hours of operation.

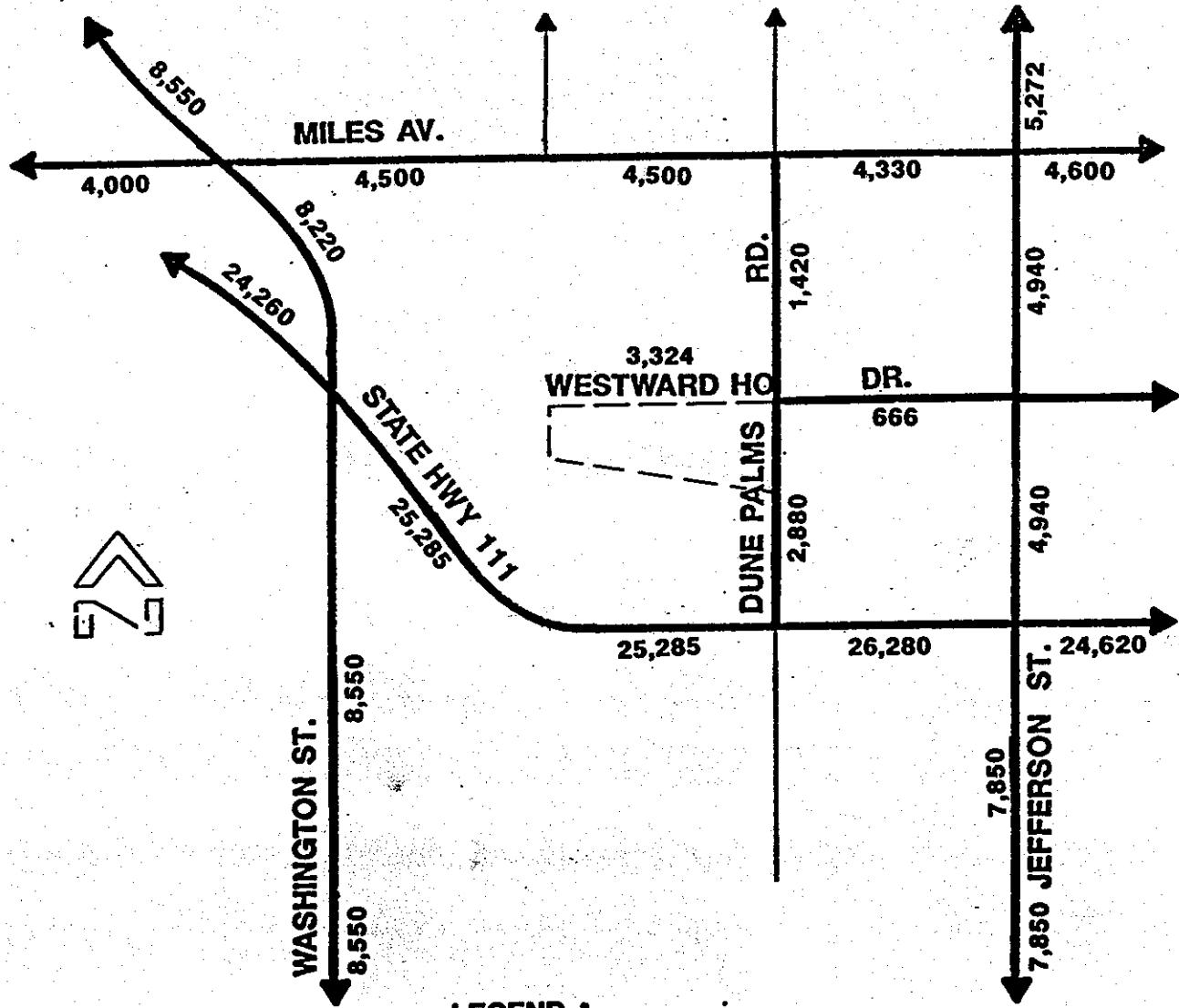
#### EXISTING PLUS PROJECT TRAFFIC

After Project traffic is assigned to the existing circulation system and added to existing volumes, traffic impacts can be analyzed. Project plus existing conditions were evaluated for the existing street system, taking into consideration various improvements that would occur in connection with the Project development. Exhibits 7 and 8 show the estimated daily traffic and turning movements, respectively, for the existing plus Project traffic conditions.

#### EXISTING PLUS FUTURE BACKGROUND PLUS PROJECT TRAFFIC

Existing plus future background traffic plus Project traffic volumes were also evaluated for the existing street system. Exhibit 9 depicts the average daily traffic volumes which would be on the existing circulation system under these conditions.

Future background traffic for a seven year period was added to existing traffic plus Project traffic at intersections anticipated to be impacted by the proposed Project. Exhibit 10 depicts the peak hour traffic volumes at each of the impacted intersections.



### EXISTING + PROJECT AVERAGE DAILY TRAFFIC VOLUMES

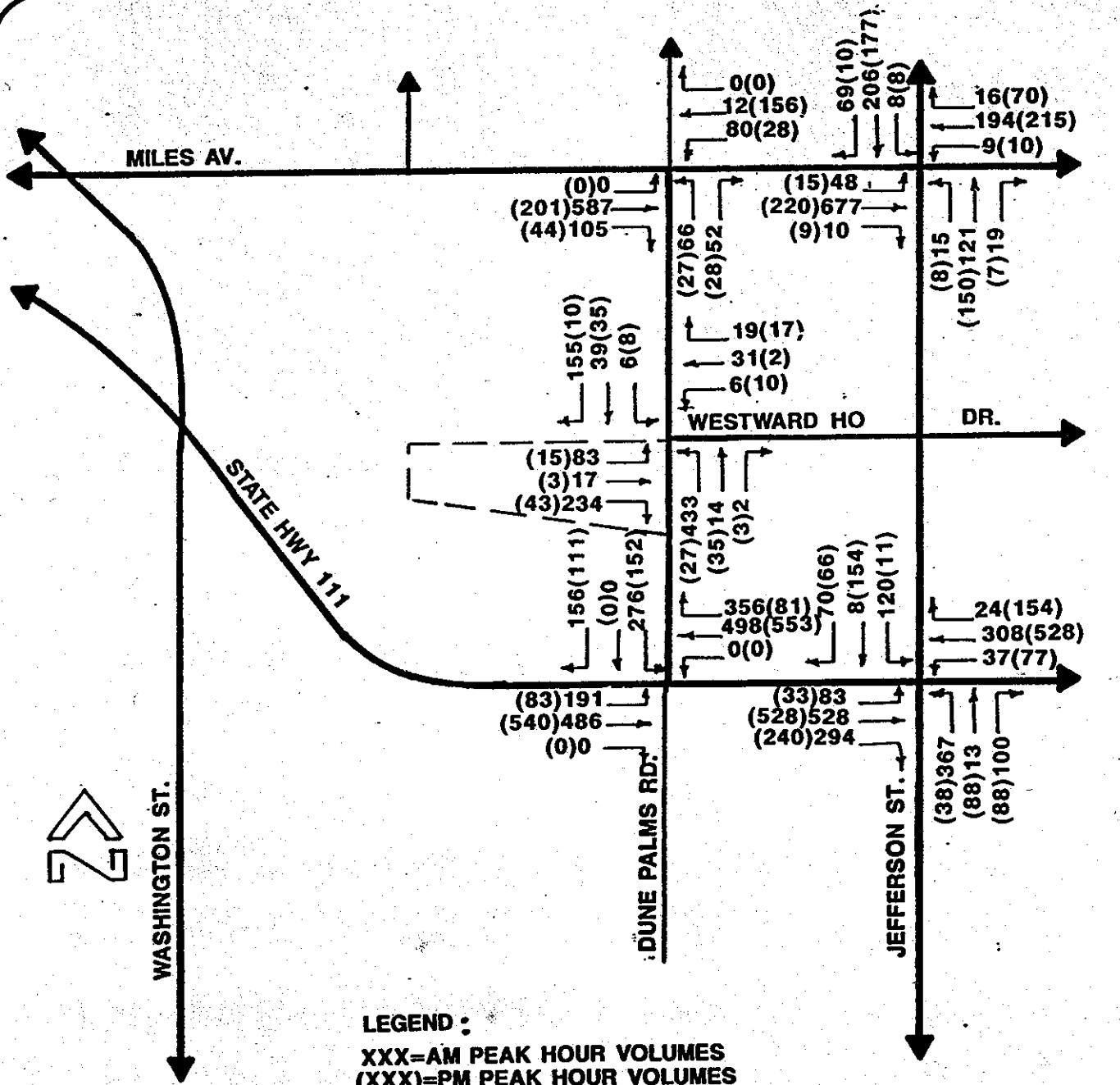


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**EXHIBIT 7**

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## EXISTING + PROJECT PEAK HOUR VOLUMES

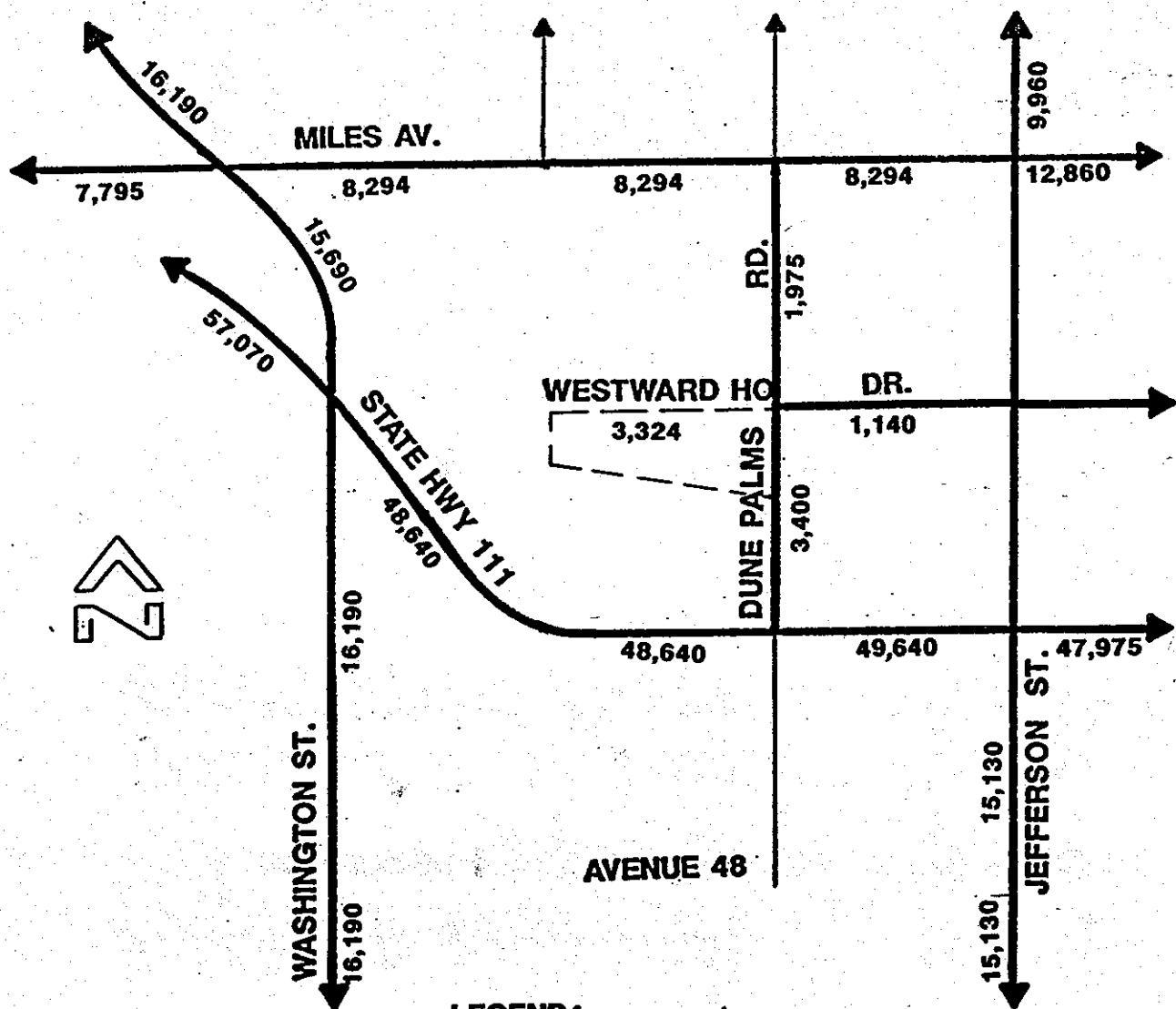
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**EXHIBIT 8**

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**EXISTING + FUTURE BACKGROUND +  
PROJECT AVERAGE DAILY TRAFFIC  
VOLUMES (1996)**

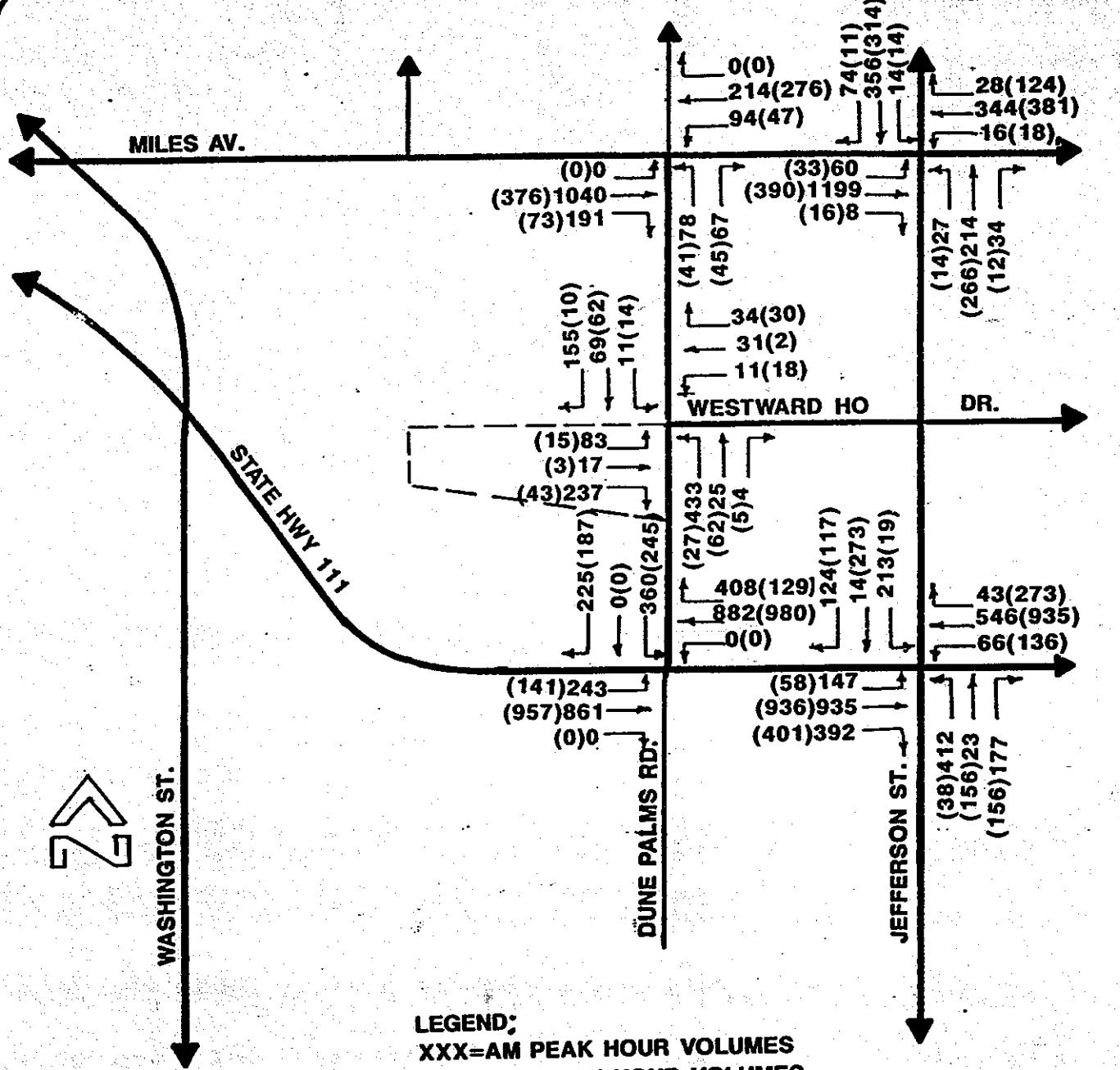
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**EXHIBIT 9**

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## EXISTING + FUTURE BACKGROUND + PROJECT PEAK HOUR TRAFFIC VOLUMES (1996)



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**EXHIBIT 10**

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**TABLE 3**  
**INTERSECTION CAPACITY UTILIZATION (ICU) /**  
**LEVEL OF SERVICE (LOS) SUMMARY**

**EXISTING CONDITIONS**

**without Mitigation**

INTERSECTIONS	V/C	<u>AM</u>		V/C	<u>PM</u>	
		LOS			LOS	
1. Miles Ave./ Dune Palms Rd.	.38	A		.17	A	
2. Westward Ho Dr./ Dune Palms Rd.	.05	A		.05	A	
3. State HWY 111/ Dune Palms Rd.	.35	A		.37	A	
4. Jefferson St./ Miles Ave.	.55	A		.26	A	
5. Jefferson St./ State HWY 111	.29	A		.37	A	

**NOTE:**      1. V/C = Volume to Capacity Ratio  
               2. LOS = Level of Service

EXISTING PLUS FUTURE BACKGROUND PLUS PROJECT PLUS ADJACENT  
PROJECTS TRAFFIC

The Project Study Area lies within the City of La Quinta and is part of the northward growth in the area. Hence, this study reviewed the proposed developments within approximately a one mile radius of the Project site for traffic impacts. As of May of 1989, two tentative tract maps and a General Plan Amendment had been filed (TT23935, TT23519, and GPA 88-021). These adjacent developments represent 606 single family homes and 750 multiple family dwelling units. Traffic volumes, roadway LOS, and intersection LOS will be significantly impacted by these future developments to the north and west of the Project site. Table 4 depicts the traffic generation forecast on an AM peak hour, PM peak hour, and 24-hour basis. Exhibit 11 depicts the average daily traffic volumes which would be on the existing circulation system under these conditions.

Future background traffic for a seven year period was added to existing traffic plus Project at intersections anticipated to be impacted by the proposed Project. Exhibit 12 depicts the peak hour traffic volumes at each of the impacted intersections.

Tables 5 and 6 summarize the Level of Service under the existing plus Project traffic and existing plus future background plus Project traffic, respectively (without mitigation). Table 7 presents the existing plus future background plus Project plus adjacent Projects traffic (without and with mitigation) Level of Service summary for the key Project area intersections.

ACCESS POINTS

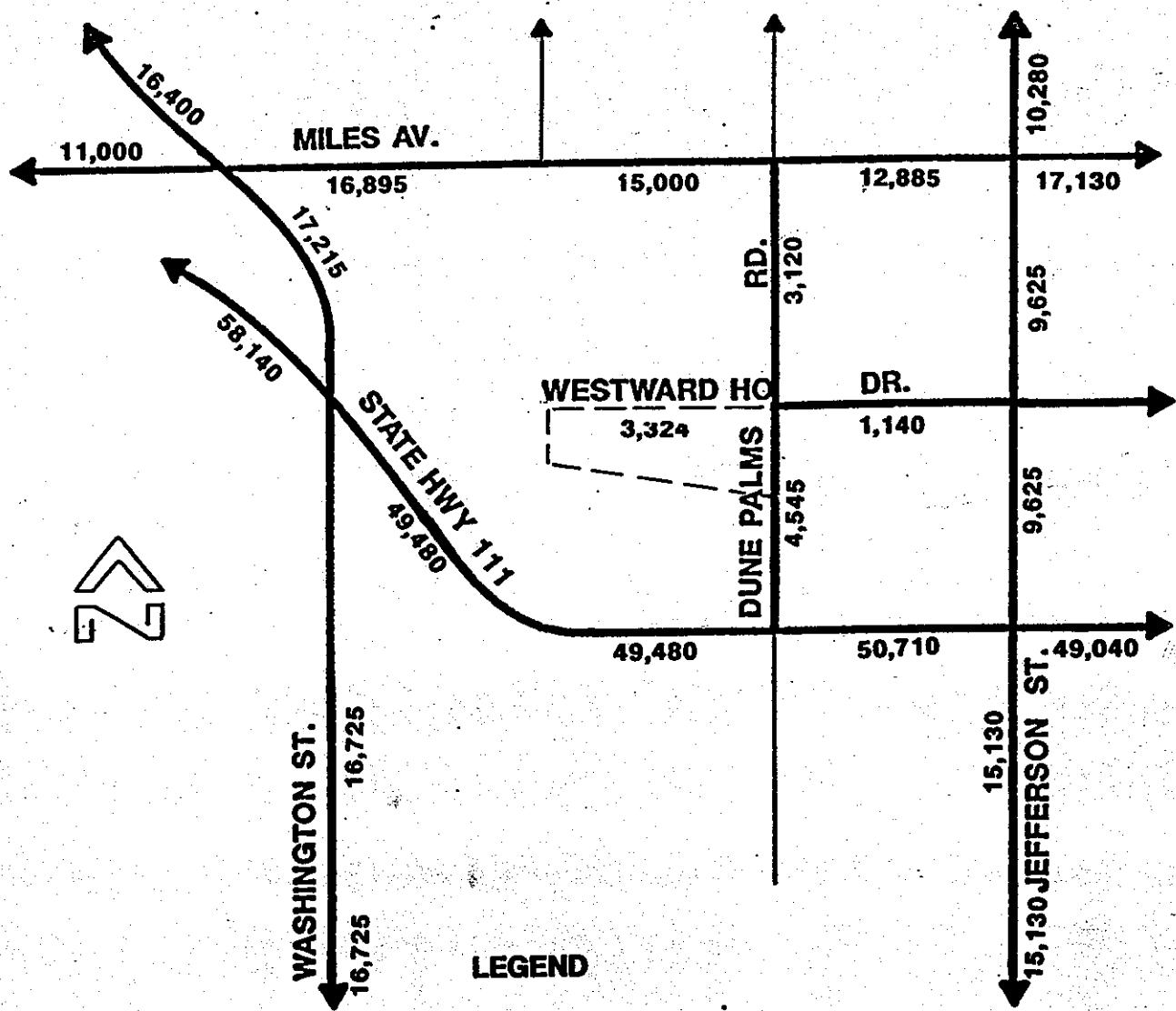
The proposed school site Project has also been reviewed in terms of the location and adequacy of access points. Based upon a review of the existing roadway system, the proposed main entrance access design and the projected traffic volumes for the site, it was determined that the access points are adequate to handle the forecasted traffic volumes.

**TABLE 4**  
**TRIP GENERATION FORECAST**  
**ADJACENT PROJECTS**

LAND DEVELOPMENT COMPONENT/UNITS	DAILY 2-WAY RATE	TRIPS	AM PEAK HOUR			PM PEAK HOUR		
			% TRIPS	% TRIPS	% TRIPS	INBOUND	OUTBOUND	% TRIPS
SINGLE FAMILY HOUSING/196 TT23935	10.062	1,972	28	42	72	109	64	127
SINGLE FAMILY HOUSING/107 TT23519	10.062	1,077	28	23	72	60	64	69
SINGLE FAMILY HOUSING/303 GPA 88-021	10.062	3,049	28	66	72	169	64	196
MULTI FAMILY HOUSING/750 GPA 88-021	6.103	4,577	27	115	73	311	63	332
<b>TOTAL TRIP GENERATION</b>	<b>-----</b>	<b>10,675</b>	<b>-----</b>	<b>246</b>	<b>649</b>	<b>-----</b>	<b>724</b>	<b>415</b>

DATA SOURCE is ITE:

"Trip Generation, Fourth Edition," Institute of Transportation Engineers, 1987.



**EXISTING + FUTURE BACKGROUND +  
PROJECT + ADJACENT PROJECTS  
AVERAGE DAILY TRAFFIC VOLUMES  
(1996)**

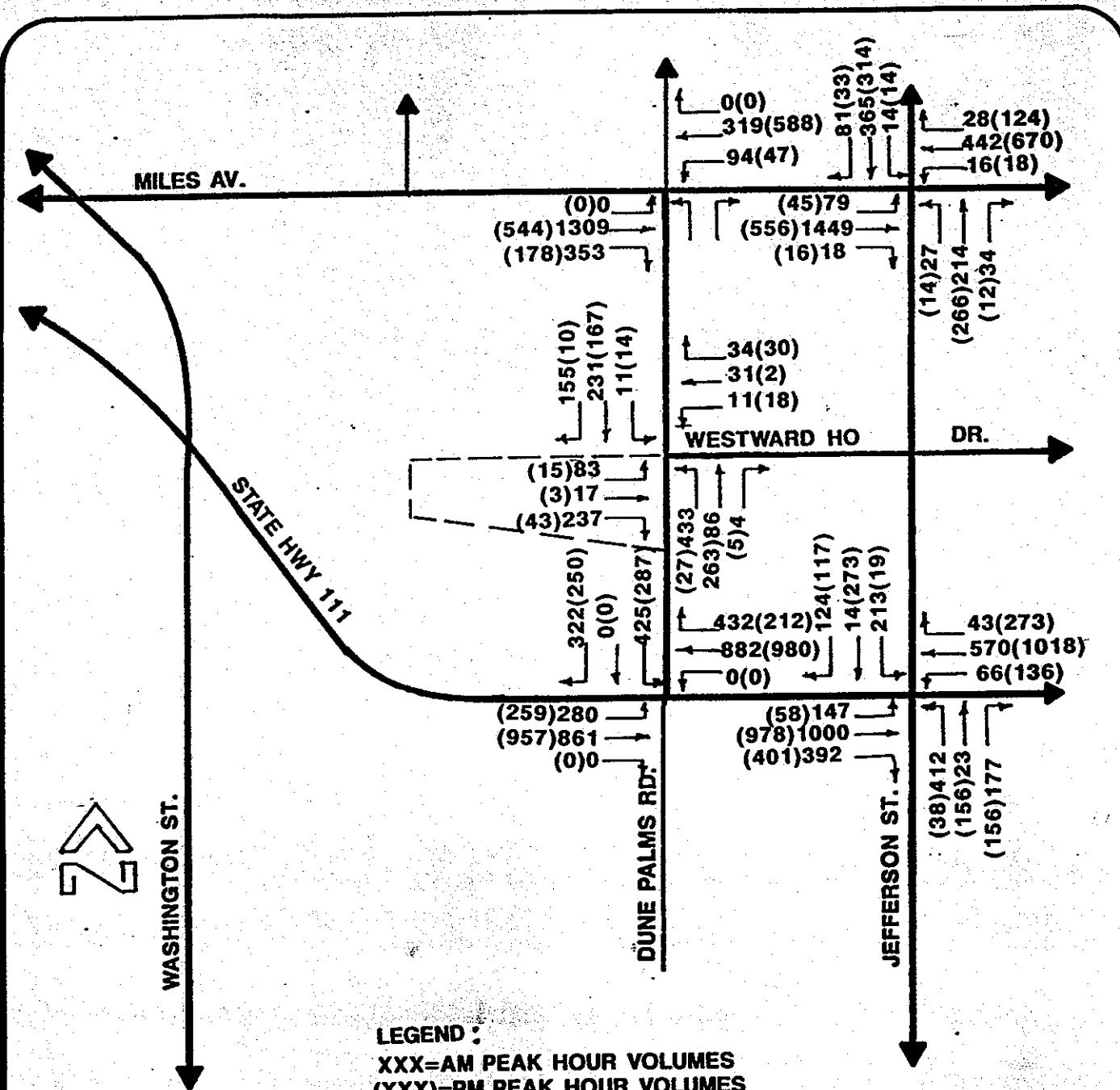


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**EXHIBIT 11**

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**EXISTING + FUTURE BACKGROUND +  
PROJECT + ADJACENT PROJECTS  
AVERAGE DAILY TRAFFIC VOLUMES  
(1996)**



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**EXHIBIT 12**

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**TABLE 5**

**INTERSECTION CAPACITY UTILIZATION (ICU) /**

**LEVEL OF SERVICE (LOS) SUMMARY**

**EXISTING PLUS PROJECT**

**Without Mitigation**

INTERSECTIONS	V/C	<u>AM</u>		V/C	<u>PM</u>	
		LOS			LOS	
1. Miles Ave./ Dune Palms Rd.	.50	A		.18	A	
2. Westward Ho Dr./ Dune Palms Rd.	.42	A		.07	A	
3. State HWY 111/ Dune Palms Rd.	.70	B		.44	A	
4. Jefferson St./ Miles Ave.	.58	A		.26	A	
5. Jefferson St./ State HWY 111	.48	A		.38	A	

**NOTE:**      1. V/C = Volume to Capacity Ratio  
                 2. LOS = Level of Service

TABLE 6

INTERSECTION CAPACITY UTILIZATION (ICU) /LEVEL OF SERVICE (LOS) SUMMARYEXISTING PLUS FUTURE BACKGROUND PLUS PROJECT

## Without Mitigation

INTERSECTIONS	V/C	AM		PM	
		LOS		V/C	LOS
1. Miles Ave./ Dune Palms Rd.	.83	D		.32	A
2. Westward Ho Dr./ Dune Palms Rd.	.45	A		.09	A
3. State HWY 111/ Dune Palms Rd.	.97	E		.74	C
4. Jefferson St./ Miles Ave.	1.00	E		.47	A
5. Jefferson St./ State HWY 111	.68	B		.65	B

## With Mitigation

1. Miles Ave./ Dune Palms Rd.	.72	C		.32	A
2. State HWY 111/ Dune Palms Rd.	.73	C		.55	A
3. Jefferson St./ Miles Ave.	.61	B		.44	A

NOTE:      1. V/C = Volume to Capacity Ratio  
               2. LOS = Level of Service

TABLE 7

INTERSECTION CAPACITY UTILIZATION (ICU) /LEVEL OF SERVICE (LOS) SUMMARYEXISTING PLUS FUTURE BACKGROUND TRAFFICPLUS PROJECT PLUS ADJACENT PROJECTSWithout Mitigation

INTERSECTIONS	V/C	AM		PM	
		LOS		V/C	LOS
1. Miles Ave./ Dune Palms Rd.	1.14	F		.67	B
2. Westward Ho Dr./ Dune Palms Rd.	.49	A		.21	A
3. State HWY 111/ Dune Palms Rd.	1.11	F		.90	D
4. Jefferson St./ Miles Ave.	1.16	F		.61	B
5. Jefferson St./ State HWY 111	.70	B		.67	B

With Mitigation

1. Miles Ave./ Dune Palms Rd.	.65	B		.63	B
2. State HWY 111/ Dune Palms Rd.	.80	C		.67	B
3. Jefferson ST./ Miles Ave.	.70	B		.61	B

NOTE:      1. V/C = Volume to Capacity Ratio  
               2. LOS = Level of Service

### TRAFFIC SIGNAL WARRANT ANALYSIS

The main entrance to the High School site will be located west of the intersection of Dune Palms Road and Westward Ho Drive. Taking this fact into consideration, a traffic signal warrant analysis was performed for the existing traffic volumes without the Project traffic volumes of the new High School. The intent was to see if a traffic signal would be warranted under existing conditions. Utilizing nationally accepted warrants which have been adopted by Caltrans for the installation of traffic signals, it was determined that the "Peak Hour Volume" traffic signal warrant was applicable to the school site study.

The Peak-Hour Volume Warrant is to be applied where for one hour of the day, minor street traffic is unduly delayed in entering or crossing the major street. Based upon this signal warrant, it was found that under existing traffic conditions, a traffic signal is not warranted at the intersection of Dune Palms Road and Westward Ho Drive; but after the completion of the School Site (Phase Four) a traffic signal will be required. In addition, it was determined that the State Highway 111/Dune Palms Road and Miles Avenue/Jefferson street intersections would require signalization even without the Project generated traffic. The traffic count data and signal warrant forms can be found in the Appendix section of this report.

As a part of the study process, a traffic signal warrant analysis was performed for the Miles Avenue/Dune Palms Road intersection. After the completion of the School Site, the addition of Project traffic volumes would require that a traffic signal be installed at the intersection of Miles Avenue and Dune Palms Road.

### ON-SITE CONSIDERATIONS

Based upon the previous analysis and a field review of the proposed school site, it was apparent that several safety related issues should be addressed in the school site study. One issue of concern relates to the proposed bus loading and unloading area. The proposed bus loading and unloading area shown on the site plan should be modified to allow better ingress and egress.

In particular, the distance from the edge of Westward Ho Drive to the curb for loading and unloading should be increased to approximately 70 feet. This dimension should be modified as appropriate to allow exiting buses to align in an almost perpendicular position to Westward Ho Drive before exiting the student loading and unloading area. Further, consideration should be given to moving the exiting driveway further away from the intersection of Westward Ho Drive and Dune Palms Road. This action will allow more stacking distance for the buses when they exit the school site and approach this future signalized intersection.

Another issue of concern relates to the proposed location of the sports stadium and its lighting. To minimize any potential impacts to the adjacent streets, mobile home park and other residences to the east, it is recommended that the luminaires be equipped with shield deflectors and adjusted by the manufacturer using the "target method" to localize the light beams. Also, it is recommended that a fence be installed around the High School to create a closed campus and minimize any attempts to park on Dune Palms Road during sporting events. Further, it is recommended that "no parking" signs be installed along Dune Palms Road adjacent to the perimeter of the school site.

In addition, a review was made of the proposed on-site parking lot. Based upon this review it was determined that the on-site circulation is adequate for the school site. However, it is recommended that consideration be given to moving the student parking lot closer to the sports stadium. The proposed lot creates a long distance to traverse the campus before entering the stadium.

#### MITIGATION MEASURES SUMMARY AND RECOMMENDATIONS

Under existing traffic conditions, mitigation is recommended to improve the traffic operations of the State HWY 111/Dune Palms

Road and Miles Avenue/Jefferson Street intersections. The identified need for signalization at this intersection is caused by the large movements from both the east and west approaches. To mitigate this impact, it is recommended that State Highway 111 and Dune Palms Road and Miles Avenue and Jefferson Street be signalized. These improvements are necessary in order to make the intersections operate at acceptable Level of Service during the critical AM peak hour. The traffic signal warrants for both State Highway 111/Dune Palms Road and Miles Avenue/Jefferson Street are included in the appendix.

After completion of the school site Project, the intersections of Miles Avenue/Dune Palms Road and Westward Ho Drive/Dune Palms Road are recommended for the installation of traffic signals. These improvements are necessary in order to make the intersections operate at an acceptable Level of Service during the critical AM peak hour.

Under the condition, existing plus future background plus Project (1996), mitigation is recommended for three of the key Project intersections. For the intersection of Miles Avenue and Dune Palms Road, an additional through lane is required for the west approach in order for the intersection to operate at an acceptable Level of Service. Mitigation for the intersection of State Highway 111 and Dune Palms Road is an additional left-turn lane for the north approach. Finally, at the intersection of Jefferson Street and Miles Avenue, an additional through lane is required for the west approach in order for the intersection to operate at an acceptable Level of Service.

For the condition of existing plus future background plus Project plus adjacent Projects, mitigation of the existing intersection geometrics are recommended along with the installation of the traffic signals. Mitigation measures are the same as under the condition existing plus future background plus Project. Installation of traffic signals are recommended at the intersections of Miles Avenue/Dune Palms Road and Westward Ho Drive/Dune Palms Road.

In addition, the following mitigation measures should be implemented to reduce any potential impacts associated with the currently proposed Third High School Project:

1. The proposed bus loading and unloading area shown on the site plan should be modified to allow better ingress and egress. In particular, the distance from the edge of Westward Ho Drive to the curb for loading and unloading should be increased to approximately 70 feet. This dimension should be modified as appropriate to allow exiting buses to align in a perpendicular position to Westward Ho Drive before leaving the student loading and unloading area.
2. Stop signs shall be installed at the school sites egress points (including bus loading/unloading area) to control exiting traffic.
3. The appropriate signs and painted curbs shall be installed on-site to indicate the designated bus loading and unloading areas and the employee and visitor parking areas.
4. All standard school signing per the Caltrans Traffic Manual shall be properly installed to give advance notice of the school site.
5. A bridge should be constructed over the Whitewater River flood channel on Dune Palms Road to minimize the threat of flooding. An alternate would be to install automated traffic warning devices on both Dune Palms Road and Jefferson Street, north and south of the Whitewater River flood channel.

In conclusion, it can be stated that the Third High School site can be implemented safely as long as the proposed mitigation measures which were previously described are implemented. This includes the signalization of the intersections of Miles

Avenue/Dune Palms Road and Westward Ho Drive/Dune Palms Road. Mitigation of the intersection geometrics as described above are also required in order to make the intersections operate at an acceptable Level of Service.

**APPENDICES**

**APPENDIX A**

**EXPLANATION AND CALCULATION OF  
INTERSECTION CAPACITY UTILIZATION (ICU)**

## EXPLANATION AND CALCULATION OF INTERSECTION CAPACITY UTILIZATION (ICU)

The ability of a roadway to carry traffic is referred to as capacity. The capacity is usually greater between intersections and less at intersections because traffic flows continuously between them and only during the green phase at them. Capacity at intersections is best defined in terms of vehicles per lane per hour of green. If capacity is 1600 vehicles per lane per hour of green, and if the green phase is 50 percent of the cycle and there are three lanes, then the capacity is 1600 times 50 percent times 3 lanes, or 2400 vehicles per hour.

The technique used to compare the volume and capacity at an intersection is known as Intersection Capacity Utilization (ICU). ICU, usually expressed as a percent, is the proportion of an hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. If an intersection is operating at 80 percent of capacity, then 20 percent of the signal cycle is not used. The signal could show red on all indications 20 percent of the time and the signal would just accommodate approaching traffic.

ICU analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement of traffic, (b) summing the times for the movements, and (c) comparing the total time required to the total time available. For example, if for north-south traffic the northbound traffic is 1600 vehicles per hour, the southbound traffic is 1200 vehicles per hour, and the capacity of either direction is 3200 vehicles per hour, then the northbound traffic is critical and requires  $1600/3200$  of 50 percent of the signal time. If for the east-west traffic 30 percent of the signal time is required, then it can be seen that the ICU is 50 plus 30, or 80 percent. When left turn phases exist, they are incorporated into the analysis. The critical movements are usually the heavy left turn movements and the opposing through movements.

Level of service is used to describe the quality of traffic flow. Levels of Service A to C operate quite well. Level of Service C is typically the standard to which rural roads are designed, and level of Service D is the standard to which urban roadways are typically designed. Level of Service D is characterized by fairly restricted traffic flow. Level of Service E is the maximum volume a facility can accommodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration. A description of the various levels of traffic service appears on the following page, along with the relationship between ICU and level of traffic service.

The ICU calculation assumes that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersection is invalid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volume with a signal. It is possible to have an ICU well below 100 percent, yet have severe traffic congestion. This would occur if one or more movements is not getting sufficient green time to satisfy its demand, and excess green time exists on other movements. This is an operational problem which should be remedied.

Capacity is often defined in terms of roadway width; however, standard lanes have approximately the same capacity whether they are 11 or 14 feet wide. Our data indicates a typical lane, whether a through lane or a left turn lane, has a capacity of approximately 1750 vehicles per hour, with nearly all locations showing a capacity greater than 1600 vehicles per hour per lane.

This finding is published in the August, 1978 issue of ITE Journal in the article entitled, "Another Look at Signalized Intersection Capacity" by William Kunzman. For this study, a capacity of 1700 vehicles per hour per lane will be assumed for both through and left turn lanes.

The yellow time can either be assumed to be completely used and no penalty applied, or it can be assumed to be only partially usable. Total yellow time accounts for less than 10 percent of a cycle, and a penalty up to three percent is reasonable. On the other hand, during peak hour traffic operation the yellow times are nearly completely used. If there are no left turn phases, the left turn vehicles completely use the yellow time. If there are left turn phases, the through traffic continues to enter the intersection on the yellow until just a split second before the red. In this study, no penalty will be applied for the yellow clearance intervals.

The ICU technique is an ideal tool to quantify existing as well as future intersection operation. The impact of adding a lane can be quickly determined by examining the effect the lane has on the intersection capacity utilization.

Source: "Another Look at Signalized Intersection Capacity",  
ITE Journal, 1978.

## LEVEL OF SERVICE DESCRIPTION

Level of Service	Description	Stopped Delay Per Vehicle (Seconds)	Intersection Capacity Utilization (Percent)
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 5.0	0 to 60
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	5.1 to 15.0	61 to 70
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	15.1 to 25.0	71 to 80
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	25.1 to 40.0	81 to 90
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	40.1 to 60.0	91 to 100
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	60.1 +	100 +

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

**APPENDIX B**

**ICU WORKSHEETS**

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT)

				LANES	CAP	VOL	V/C
N	1225	0	360	NBL	0.00	0	.00
				NBT	1.00	1700	.00
	<	v	>	NBR	0.00	0	.00
	*		*	SBL	0.00	0	.00
			^ 408	SBT	1.00	1700	.0 .45*
	*	< 882		SBR	0.00	0	.00
243	^ *		v 0	EBL	1.00	1700	.243 .14*
861	>			EBT	2.00	3400	861 .25
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	882 .38*
				WBR	0.00	0	.00
	10	0	0		CYCLE TIME LOSS FACTOR		0.00
					TOTAL ICU		0.97
					LEVEL OF SERVICE = E		

STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT)

				LANES	CAP	VOL	V/C
N	1187	0	245	NBL	0.00	0	.00
				NBT	1.00	1700	.00
	<	v	>	NBR	0.00	0	.00
	*		*	SBL	0.00	0	.00
			^ 129	SBT	1.00	1700	.0 .33*
	*	< 980		SBR	0.00	0	.00
141	^ *		v 0	EBL	1.00	1700	141 .08*
957	>			EBT	2.00	3400	957 .28
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	980 .33*
				WBR	0.00	0	.00
	10	0	0		CYCLE TIME LOSS FACTOR		0.00
					TOTAL ICU		0.74
					LEVEL OF SERVICE = C		

ENTER CHOICE: (USE CAPS)

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700485

JEFFERSON/MILES -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT)

					LANES	CAP	VOL	V/C
N	174	365	14		NBL	0.00	0	.27
					NBT	1.00	1700	.214
	<	v	>		NBR	0.00	0	.34
	*				SBL	0.00	0	.14
				^ 28	SBT	1.00	1700	.365
				< 344	SBR	1.00	1700	.74
60	^			v 16	EBL	0.00	0	.60
1199	>	*			EBT	1.00	1700	.1199
18	v				EBR	0.00	0	.18
					WBL	0.00	0	.16
					WBT	1.00	1700	.344
					WBR	1.00	1700	.28
				127 214 34				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 1.00

LEVEL OF SERVICE = E

JEFFERSON/MILES -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT)

					LANES	CAP	VOL	V/C
N	11	314	14		NBL	0.00	0	.14
					NBT	1.00	1700	.266
	<	v	>		NBR	0.00	0	.12
	*				SBL	0.00	0	.14
				^ 124	SBT	1.00	1700	.314
				< 381	SBR	1.00	1700	.11
33	^			v 18	EBL	0.00	0	.33
390	>	*			EBT	1.00	1700	.390
16	v				EBR	0.00	0	.16
					WBL	0.00	0	.18
					WBT	1.00	1700	.381
				114 266 12	WBR	1.00	1700	.124

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.47

LEVEL OF SERVICE = A

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KINMEL and ASSOCIATES**  
 TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700485

## STATE HWY 111/JEFFERSON -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT)

				LANES	CAP	VOL	V/C	
N	1124	14	213	NBL	1.00	1700	412	.24*
				NBT	1.00	1700	23	.01
	<	v	>	NBR	1.00	1700	177	.05
	*			SBL	1.00	1700	213	.13
			^ 43	SBT	1.00	1700	14	.01*
			< 546	SBR	1.00	1700	124	.04
147	^		* v 66	EBL	1.00	1700	147	.09
935	>	*		EBT	2.00	3400	935	.39*
392	v			EBR	0.00	0	392	.00
	*			WBL	1.00	1700	66	.04*
	<	^	>	WBT	2.00	3400	546	.17
				WBR	0.00	0	43	.00
	412	23	177					
					CYCLE TIME LOSS FACTOR		0.00	
					TOTAL ICU		0.68	
					LEVEL OF SERVICE = B			

## STATE HWY 111/JEFFERSON -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT)

				LANES	CAP	VOL	V/C	
N	1117	273	19	NBL	1.00	1700	38	.02*
				NBT	1.00	1700	156	.09
	<	v	>	NBR	1.00	1700	156	.05
	*			SBL	1.00	1700	19	.01
			^ 273	SBT	1.00	1700	273	.16*
			< 935	SBR	1.00	1700	117	.03
58	^		* v 136	EBL	1.00	1700	58	.03
936	>	*		EBT	2.00	3400	936	.39*
401	v			EBR	0.00	0	401	.00
	*			WBL	1.00	1700	136	.08*
	<	^	>	WBT	2.00	3400	935	.36
				WBR	0.00	0	273	.00
	38	156	156		CYCLE TIME LOSS FACTOR		0.00	
					TOTAL ICU		0.65	
					LEVEL OF SERVICE = B			

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

**MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	0	0	0	NBL	0.00	0	.16 .00
				NBT	1.00	1700	0 .03*
	<	v	>	NBR	0.00	0	.19 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
587	> *			EBT	1.00	1700	587 .35*
12	v			EBC	0.00	0	.12 .00
	*			WBL	0.00	0	.18 .00
	<	^	>	WBT	1.00	1700	121 .09
				WBR	0.00	0	.00 .00
	16	0	19				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.38
							LEVEL OF SERVICE = A

**MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	0	0	0	NBL	0.00	0	.18 .00
				NBT	1.00	1700	0 .03*
	<	v	>	NBR	0.00	0	.22 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
201	> *			EBT	1.00	1700	201 .14*
38	v			EBC	0.00	0	.38 .00
	*			WBL	0.00	0	.24 .00
	<	^	>	WBT	1.00	1700	156 .11
				WBR	0.00	0	.00 .00
	18	0	22				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.17
							LEVEL OF SERVICE = A

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KINNELL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

**WESTWARD HO/DUNE PALMS -- AM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	10	39	6	NBL	0.00	0	.00
				NBT	1.00	1700	.14
	<	v	>	NBR	0.00	0	.00
	*			SBL	0.00	0	.00
				SBT	1.00	1700	.39
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
0	>			EBT	0.00	0	.00
0	v			EBR	0.00	0	.00
				WBL	0.00	0	.00
				WBT	1.00	1700	.0
				WBR	0.00	19	.00
	10	14	2				
							CYCLE TIME LOSS FACTOR
							0.00
							TOTAL ICU
							0.05
							LEVEL OF SERVICE = A

**WESTWARD HO/DUNE PALMS -- PM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	10	35	8	NBL	0.00	0	.00
				NBT	1.00	1700	.35
	<	v	>	NBR	0.00	0	.00
	*			SBL	0.00	0	.00
				SBT	1.00	1700	.35
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
0	>			EBT	0.00	0	.00
0	v			EBR	0.00	0	.00
				WBL	0.00	0	.10
				WBT	1.00	1700	.0
				WBR	0.00	17	.00
	10	35	3				CYCLE TIME LOSS FACTOR
							0.00
							TOTAL ICU
							0.05
							LEVEL OF SERVICE = A

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KINNELL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

**STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	189	0	109	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v >	SBL	0.00	0	.00
		*		SBT	1.00	1700	.00
				SBR	0.00	0	.00
67	^ *		v 0	EBL	1.00	1700	.67
486	>			EBT	2.00	3400	.486
0	v			EBC	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.498
				WBR	0.00	0	.00
		10	0 0				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.35

LEVEL OF SERVICE = A

**STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	199	0	121	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v >	SBL	0.00	0	.00
		*		SBT	1.00	1700	.00
				SBR	0.00	0	.00
75	^ *		v 0	EBL	1.00	1700	.75
540	>			EBT	2.00	3400	.540
0	v			EBC	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.553
				WBR	0.00	0	.00
		0	0 0				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.39

LEVEL OF SERVICE = A

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# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-15-1989

HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700485

## JEFFERSON/MILES -- AM PEAK HOUR (EXISTING)

					LANES	CAP	VOL	V/C
N	17	206	8		NBL	0.00	0	.15
					NBT	1.00	1700	.121
	<	v	>		NBR	0.00	0	.19
*				-----	SBL	0.00	0	.08
				^ 16	SBT	1.00	1700	.206
				< 194	SBR	1.00	1700	.07
15	^			v 9	EBL	0.00	0	.15
677	>	*			EBT	1.00	1700	.677
10	v				EBR	0.00	0	.10
				-----	WBL	0.00	0	.09
				< ^ >	WBT	1.00	1700	.194
					WBR	1.00	1700	.16
	115	121	19					

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.55

LEVEL OF SERVICE = A

## JEFFERSON/MILES -- PM PEAK HOUR (EXISTING)

					LANES	CAP	VOL	V/C
N	16	177	8		NBL	0.00	0	.08
					NBT	1.00	1700	.150
	<	v	>		NBR	0.00	0	.07
*				-----	SBL	0.00	0	.08
				^ 70	SBT	1.00	1700	.177
				< 215	SBR	1.00	1700	.06
15	^			v 10	EBL	0.00	0	.15
220	>	*			EBT	1.00	1700	.220
9	v				EBR	0.00	0	.09
				-----	WBL	0.00	0	.10
				< ^ >	WBT	1.00	1700	.215
					WBR	1.00	1700	.70
	18	150	7					

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.26

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700485

**STATE HWY 111/JEFFERSON -- AM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	170	8	120	NBL	1.00	1700	58 .03
				NBT	1.00	1700	13 .01*
	<	v	>	NBR	1.00	1700	100 .03
	*			SBL	1.00	1700	120 .07*
			^ 24	SBT	1.00	1700	8 .00
			< 308	SBR	1.00	1700	70 .02
83	^		* v 37	EBL	1.00	1700	83 .05
528	>	*		EBT	2.00	3400	528 .19*
127	v			EBR	0.00	0	127 .00
	*			WBL	1.00	1700	37 .02*
	<	^	>	WBT	2.00	3400	308 .10
				WBR	0.00	0	24 .00
	158	13	100				
				CYCLE TIME LOSS FACTOR			0.00
				TOTAL ICU			0.29
				LEVEL OF SERVICE = A			

**STATE HWY 111/JEFFERSON -- PM PEAK HOUR (EXISTING)**

				LANES	CAP	VOL	V/C
N	166	154	11	NBL	1.00	1700	11 .01*
				NBT	1.00	1700	88 .05
	<	v	>	NBR	1.00	1700	88 .03
	*			SBL	1.00	1700	11 .01
			^ 154	SBT	1.00	1700	154 .09*
			< 528	SBR	1.00	1700	66 .02
33	^		* v 77	EBL	1.00	1700	33 .02
528	>	*		EBT	2.00	3400	528 .22*
209	v			EBR	0.00	0	209 .00
	*			WBL	1.00	1700	77 .05*
	<	^	>	WBT	2.00	3400	528 .20
				WBR	0.00	0	154 .00
	111	88	88				
				CYCLE TIME LOSS FACTOR			0.00
				TOTAL ICU			0.37
				LEVEL OF SERVICE = A			

ENTER CHOICE: (USE CAPS)

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# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-14-1989

**HERMAN KINNELL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

## WESTWARD HO/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT)

					LANES	CAP	VOL	V/C
N	1155	69	11		NBL	0.00	0	433 .00
					NBT	1.00	1700	25 .40*
					NBR	0.00	0	4 .00
		<	v	>	SBL	0.00	0	11 .00
					SBT	1.00	1700	69 .14
					SBR	0.00	0	155 .00
83	^				EBL	0.00	0	83 .00
17	>				EBT	0.00	0	17 .00
237	v				EBR	0.00	0	237 .00
		*			WBL	0.00	0	11 .00
					WBT	1.00	1700	31 .05*
					WBR	0.00	0	34 .00
	1433	25	4					

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.45

LEVEL OF SERVICE = A

## WESTWARD HO/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT)

					LANES	CAP	VOL	V/C
N	10	62	14		NBL	0.00	0	27 .00
					NBT	1.00	1700	62 .06*
		<	v	>	NBR	0.00	0	5 .00
					SBL	0.00	0	14 .00
					SBT	1.00	1700	62 .05
		*			SBR	0.00	0	10 .00
15	^				EBL	0.00	0	15 .00
3	>				EBT	0.00	0	3 .00
43	v				EBR	0.00	0	43 .00
		*			WBL	0.00	0	18 .00
					WBT	1.00	1700	2 .03*
					WBR	0.00	0	30 .00
	27	62	5					

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.09

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-14-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT)

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.78
				NBT	1.00	1700	0
				NBR	0.00	0	.67
		<	v >	SBL	0.00	0	.00
				SBT	1.00	1700	0
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
1040	> *			EBT	1.00	1700	1040
191	v			EBR	0.00	0	.19
	*			WBL	0.00	0	.94
		<	^ >	WBT	1.00	1700	214
				WBR	0.00	0	.21
	178	0	67				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.83

LEVEL OF SERVICE = D

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.41
				NBT	1.00	1700	0
				NBR	0.00	0	.45
		<	v >	SBL	0.00	0	.00
				SBT	1.00	1700	0
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
376	> *			EBT	1.00	1700	376
73	v			EBR	0.00	0	.20
	*			WBL	0.00	0	.47
		<	^ >	WBT	1.00	1700	276
				WBR	0.00	0	.20
	41	0	45				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.32

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

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# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-19-1989

HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700485

JEFFERSON/MILES -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	174	365	14	NBL	0.00	0	.27 .00
				NBT	1.00	1700	.214 .17
	<	v	>	NBR	0.00	0	.34 .00
	*			SBL	0.00	0	.14 .00
				SBT	1.00	1700	.365 .23*
				SBR	1.00	1700	.74 .02
60	^			EBL	0.00	0	.60 .00
1199	>	*		EBT	2.00	3400	1199 .38*
18	v			EBR	0.00	0	.18 .00
				WBL	0.00	0	.16 .00
				WBT	1.00	1700	.344 .22
				WBR	1.00	1700	.28 .01
	127	214	34				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.61

LEVEL OF SERVICE = B

JEFFERSON/MILES -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	111	314	14	NBL	0.00	0	.14 .00
				NBT	1.00	1700	.266 .18
	<	v	>	NBR	0.00	0	.12 .00
	*			SBL	0.00	0	.14 .00
				SBT	1.00	1700	.314 .20*
				SBR	1.00	1700	.11 .00
33	^			EBL	0.00	0	.33 .00
390	>			EBT	2.00	3400	390 .13
16	v			EBR	0.00	0	.16 .00
				WBL	0.00	0	.18 .00
				WBT	1.00	1700	.381 .24*
	114	266	12	WBR	1.00	1700	.124 .04

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.44

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-19-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.78 .00
				NBT	1.00	1700	0 .11*
	<	v	>	NBR	0.00	0	.67 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
				EBT	1.00	1700	1040 .61*
1040	>	*		EBR	1.00	1700	191 .06
191	v			WBL	0.00	0	.94 .00
				WBT	1.00	1700	214 .21
				WBR	0.00	0	.00 .00
	78	0	67				
				CYCLE TIME LOSS FACTOR 0.00			
				TOTAL ICU 0.72			
				LEVEL OF SERVICE = C			

MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.41 .00
				NBT	1.00	1700	0 .06*
	<	v	>	NBR	0.00	0	.45 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
				EBT	1.00	1700	376 .22*
376	>	*		EBR	1.00	1700	73 .02
73	v			WBL	0.00	0	.47 .00
				WBT	1.00	1700	276 .20
	141	0	45	WBR	0.00	0	.00 .00
				CYCLE TIME LOSS FACTOR 0.00			
				TOTAL ICU 0.28			
				LEVEL OF SERVICE = A			

ENTER CHOICE: (USE CAPS)

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# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-19-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING+GROWTH+PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.78 .00
				NBT	1.00	1700	0 .11*
	<	v	>	NBR	0.00	0	.67 .00
				SBL	0.00	0	.00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
1040	>	*		EBT	2.00	3400	1040 .36*
191	v			EBR	0.00	0	.191 .00
				WBL	0.00	0	.94 .00
				WBT	1.00	1700	214 .21
				WBR	0.00	0	.00
	178	0	67				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.47
							LEVEL OF SERVICE = A

MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING+GROWTH+PROJECT) WITH MITIGATION

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.41 .00
				NBT	1.00	1700	0 .06*
	<	v	>	NBR	0.00	0	.45 .00
				SBL	0.00	0	.00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
376	>			EBT	2.00	3400	376 .13
73	v			EBR	0.00	0	.73 .00
				WBL	0.00	0	.47 .00
				WBT	1.00	1700	276 .20*
				WBR	0.00	0	.00
	41	0	45				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.26
							LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

<E>ND <C>HANGE <N>EW <T>OP OF PAGE PRINT <B>OTTOM OF PAGE PRINT <S>AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.139 .00
				NBT	1.00	1700	0 .16*
	<	v	>	NBR	0.00	0	.67 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
1309	>	*		EBT	1.00	1700	1309 .98*
353	v			EBR	0.00	0	.353 .00
				WBL	0.00	0	.94 .00
				WBT	1.00	1700	319 .27
				WBR	0.00	0	.00 .00
139	0	67					
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 1.14
							LEVEL OF SERVICE = F

MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.242 .00
				NBT	1.00	1700	0 .24*
	<	v	>	NBR	0.00	0	.45 .00
				SBL	0.00	0	.00 .00
				SBT	1.00	1700	0 .00
				SBR	0.00	0	.00 .00
0	^			EBL	0.00	0	.00 .00
554	>	*		EBT	1.00	1700	554 .43*
178	v			EBR	0.00	0	.178 .00
				WBL	0.00	0	.47 .00
				WBT	1.00	1700	588 .39
				WBR	0.00	0	.00 .00
242	0	45					CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.67
							LEVEL OF SERVICE = B

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;CHANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KINNELL and ASSOCIATES**  
**TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

WESTWARD HO/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

					LANES	CAP	VOL	V/C
N	1155	231	11		NBL	0.00	0	433 .00
					NBT	1.00	1700	86 .44*
	<	v	>		NBR	0.00	0	4 .00
					SBL	0.00	0	11 .00
					SBT	1.00	1700	34 .24
					SBR	0.00	0	155 .00
83	^				EBL	0.00	0	83 .00
17	>				EBT	0.00	0	17 .00
237	v				EBC	0.00	0	237 .00
					WBL	0.00	0	11 .00
					WBT	1.00	1700	31 .05*
					WBR	0.00	0	34 .00
	433	86	4					
								CYCLE TIME LOSS FACTOR 0.00
								TOTAL ICU 0.49
								LEVEL OF SERVICE = A

WESTWARD HO/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

					LANES	CAP	VOL	V/C
N	10	167	14		NBL	0.00	0	27 .00
					NBT	1.00	1700	263 .18*
	<	v	>		NBR	0.00	0	5 .00
					SBL	0.00	0	14 .00
					SBT	1.00	1700	167 .12
					SBR	0.00	0	10 .00
15	^				EBL	0.00	0	15 .00
3	>				EBT	0.00	0	3 .00
43	v				EBC	0.00	0	43 .00
					WBL	0.00	0	18 .00
					WBT	1.00	1700	2 .03*
					WBR	0.00	0	30 .00
	27	263	5					CYCLE TIME LOSS FACTOR 0.00
								TOTAL ICU 0.21
								LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C
N	322	0	425	NBL	0.00	0	.00
				NBT	1.00	1700	0
	<	v	>	NBR	0.00	0	.00
	*			SBL	0.00	0	425
			^ 432	SBT	1.00	1700	0
			* < 882	SBR	0.00	0	322
280	^ *		v 0	EBL	1.00	1700	280
861	>			EBT	2.00	3400	861
0	v			EBC	0.00	0	.00
				WBL	1.00	1700	0
				WBT	2.00	3400	882
				WBR	0.00	0	432
10	0	0					CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 1.11

LEVEL OF SERVICE = F

STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C
N	250	0	287	NBL	0.00	0	.00
				NBT	1.00	1700	0
	<	v	>	NBR	0.00	0	.00
	*			SBL	0.00	0	287
			^ 212	SBT	1.00	1700	0
			* < 980	SBR	0.00	0	250
259	^ *		v 0	EBL	1.00	1700	259
957	>			EBT	2.00	3400	957
0	v			EBC	0.00	0	.00
				WBL	1.00	1700	0
				WBT	2.00	3400	980
				WBR	0.00	0	212
10	0	0					CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.90

LEVEL OF SERVICE = D

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KINNELL and ASSOCIATES**  
**TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700485

**JEFFERSON/MILES -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)**

					LANES	CAP	VOL	V/C
N	181	365	14		NBL	0.00	0	.27
					NBT	1.00	1700	.214
				< v >	NBR	0.00	0	.34
				-----	SBL	0.00	0	.14
				-----	SBT	1.00	1700	.365
				-----	SBR	1.00	1700	.81
79	^			-----	EBL	0.00	0	.00
1449	>	*		-----	EBT	1.00	1700	1449
18	v			-----	EBR	0.00	0	.00
				-----	WBL	0.00	0	.16
				-----	WBT	1.00	1700	442
				-----	WBR	1.00	1700	.28
	27	214	34		CYCLE TIME LOSS FACTOR			0.00
					TOTAL ICU			1.16
					LEVEL OF SERVICE = F			

**JEFFERSON/MILES -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)**

					LANES	CAP	VOL	V/C
N	133	314	14		NBL	0.00	0	.14
					NBT	1.00	1700	.266
				< v >	NBR	0.00	0	.12
				-----	SBL	0.00	0	.14
				-----	SBT	1.00	1700	.314
				-----	SBR	1.00	1700	.33
45	^			-----	EBL	0.00	0	.45
556	>			-----	EBT	1.00	1700	556
16	v			-----	EBR	0.00	0	.16
				-----	WBL	0.00	0	.18
				-----	WBT	1.00	1700	670
				-----	WBR	1.00	1700	124
	14	266	12		CYCLE TIME LOSS FACTOR			0.00
					TOTAL ICU			0.61
					LEVEL OF SERVICE = B			

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES**  
**TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700485

**JEFFERSON/MILES -- AM PEAK HOUR (EXISTING + PROJECT)**

					LANES	CAP	VOL	V/C
N	169	206	8		NBL	0.00	0	.15 .00
					NBT	1.00	1700	121 .10
	<	v	>		NBR	0.00	0	.19 .00
48	^			-----	SBL	0.00	0	.8 .00
677	>	*		-----	SBT	1.00	1700	206 .13*
10	v			-----	SBR	1.00	1700	69 .02
				-----	EBL	0.00	0	.48 .00
				-----	EBT	1.00	1700	677 .45*
				-----	EBR	0.00	0	.10 .00
				-----	WBL	0.00	0	.9 .00
				-----	WBT	1.00	1700	194 .12
				-----	WBR	1.00	1700	16 .00
	115	121	19					

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.58

LEVEL OF SERVICE = A

**JEFFERSON/MILES -- PM PEAK HOUR (EXISTING + PROJECT)**

					LANES	CAP	VOL	V/C
N	110	177	8		NBL	0.00	0	.8 .00
					NBT	1.00	1700	150 .10
	<	v	>		NBR	0.00	0	.7 .00
15	^			-----	SBL	0.00	0	.8 .00
220	>	*		-----	SBT	1.00	1700	177 .11*
9	v			-----	SBR	1.00	1700	10 .00
				-----	EBL	0.00	0	.15 .00
				-----	EBT	1.00	1700	220 .15*
				-----	EBR	0.00	0	.9 .00
				-----	WBL	0.00	0	.10 .00
				-----	WBT	1.00	1700	215 .14
	18	150	7		WBR	1.00	1700	70 .02

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.26

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-15-1989

**HERMAN KINNELL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700485

STATE HWY 111/JEFFERSON -- AM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C	
N	1124	14	213	NBL	1.00	1700	412	.24*
				NBT	1.00	1700	23	.01
	<	v	>	NBR	1.00	1700	177	.05
	*			SBL	1.00	1700	213	.13
			^ 43	SBT	1.00	1700	14	.01*
			< 570	SBR	1.00	1700	124	.04
147	^		* v 66	EBL	1.00	1700	147	.09
1000	>	*		EBT	2.00	3400	1000	.41*
392	v			EBC	0.00	0	392	.00
	*			WBL	1.00	1700	66	.04*
	<	^	>	WBT	2.00	3400	570	.18
				WBR	0.00	0	43	.00
	1412	23	177					
							CYCLE TIME LOSS FACTOR 0.00	
							TOTAL ICU 0.70	
							LEVEL OF SERVICE = B	

STATE HWY 111/JEFFERSON -- PM PEAK HOUR (EXISTING + GROWTH + PROJECT + RELATED)

				LANES	CAP	VOL	V/C	
N	1117	273	19	NBL	1.00	1700	38	.02*
				NBT	1.00	1700	156	.09
	<	v	>	NBR	1.00	1700	156	.05
	*			SBL	1.00	1700	19	.01
			^ 273	SBT	1.00	1700	273	.16*
			< 1018	SBR	1.00	1700	117	.03
58	^		* v 136	EBL	1.00	1700	58	.03
978	>	*		EBT	2.00	3400	978	.41*
401	v			EBC	0.00	0	401	.00
	*			WBL	1.00	1700	136	.08*
	<	^	>	WBT	2.00	3400	1018	.38
				WBR	0.00	0	273	.00
	38	156	156				CYCLE TIME LOSS FACTOR 0.00	
							TOTAL ICU 0.67	
							LEVEL OF SERVICE = B	

ENTER CHOICE: (USE CAPS)

<E>ND <C>HANGE <N>EW <T>OP OF PAGE PRINT <B>OTTOM OF PAGE PRINT <S>AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

08-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700485

**STATE HWY 111/JEFFERSON -- AM PEAK HOUR (EXISTING + PROJECT)**

					LANES	CAP	VOL	V/C	
N	70	8	120		NBL	1.00	1700	367	.22*
					NBT	1.00	1700	13	.01
	<	v	>		NBR	1.00	1700	100	.03
					SBL	1.00	1700	120	.07
				^ 24	SBT	1.00	1700	8	.00
				< 308	SBR	1.00	1700	70	.02
83	^		*	* v 37	EBL	1.00	1700	83	.05
528	>	*			EBT	2.00	3400	528	.24*
294	v				EBR	0.00	0	294	.00
	*				WBL	1.00	1700	37	.02*
	<	^	>		WBT	2.00	3400	308	.10
					WBR	0.00	0	24	.00
	367	13	100						

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.48

LEVEL OF SERVICE = A

**STATE HWY 111/JEFFERSON -- PM PEAK HOUR (EXISTING + PROJECT)**

					LANES	CAP	VOL	V/C	
N	166	154	11		NBL	1.00	1700	30	.02*
					NBT	1.00	1700	88	.05
	<	v	>		NBR	1.00	1700	88	.03
				*	SBL	1.00	1700	11	.01
				^ 154	SBT	1.00	1700	154	.09*
				< 528	SBR	1.00	1700	66	.02
33	^		*	* v 77	EBL	1.00	1700	33	.02
528	>	*			EBT	2.00	3400	528	.23*
240	v				EBR	0.00	0	240	.00
	*				WBL	1.00	1700	77	.05*
	<	^	>		WBT	2.00	3400	528	.20
					WBR	0.00	0	154	.00
	30	88	88						

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.39

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES**  
**TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

**WESTWARD HO/DUNE PALMS -- AM PEAK HOUR (EXISTING + PROJECT)**

				LANES	CAP	VOL	V/C
N	155	39	6	NBL	0.00	0	433 .00
				NBT	1.00	1700	14 .39*
				NBR	0.00	0	2 .00
				SBL	0.00	0	6 .00
				SBT	1.00	1700	39 .12
				SBR	0.00	0	155 .00
83	^			EBL	0.00	0	83 .00
17	>			EBT	0.00	0	17 .00
234	v			EBR	0.00	0	234 .00
				WBL	0.00	0	6 .00
				WBT	1.00	1700	31 .03*
				WBR	0.00	0	19 .00
	433	14	2				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.42

LEVEL OF SERVICE = A

**WESTWARD HO/DUNE PALMS -- PM PEAK HOUR (EXISTING + PROJECT)**

				LANES	CAP	VOL	V/C
N	10	35	8	NBL	0.00	0	27 .00
				NBT	1.00	1700	35 .05*
				NBR	0.00	0	3 .00
				SBL	0.00	0	8 .00
				SBT	1.00	1700	35 .03
				SBR	0.00	0	10 .00
15	^			EBL	0.00	0	15 .00
3	>			EBT	0.00	0	3 .00
43	v			EBR	0.00	0	43 .00
				WBL	0.00	0	10 .00
				WBT	1.00	1700	2 .02*
				WBR	0.00	0	17 .00
	27	35	3				CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.07

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

&lt;E&gt;NO &lt;C&gt;CHANGE &lt;N&gt;NEW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-15-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO.: 700484

**STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (EXISTING + PROJECT)**

				LANES	CAP	VOL	V/C
N	1156	0	276	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v >	SBL	0.00	0	276 .00
		*		^ 365	SBT	1.00	1700 .0 .34*
		*	< 498	SBR	0.00	0	156 .00
191	^ *		v 0	EBL	1.00	1700	191 .11*
486	>			EBT	2.00	3400	486 .14
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.0 .00
				WBT	2.00	3400	498 .25*
				WBR	0.00	0	365 .00
10	0	0		CYCLE TIME LOSS FACTOR			0.00
				TOTAL ICU			0.70
				LEVEL OF SERVICE = B			

**STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (EXISTING + PROJECT)**

				LANES	CAP	VOL	V/C
N	1111	0	152	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v >	SBL	0.00	0	152 .00
		*		^ 81	SBT	1.00	1700 .0 .20*
		*	< 553	SBR	0.00	0	111 .00
83	^ *		v 0	EBL	1.00	1700	83 .05*
540	>			EBT	2.00	3400	540 .16
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.0 .00
				WBT	2.00	3400	553 .19*
				WBR	0.00	0	81 .00
10	0	0		CYCLE TIME LOSS FACTOR			0.00
				TOTAL ICU			0.44
				LEVEL OF SERVICE = A			

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;CHANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

# INTERSECTION CAPACITY UTILIZATION ANALYSIS

09-15-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

## MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING + PROJECT)

				LANES	CAP	VOL	V/C		
N	10	0	0	NBL	0.00	0	66	.00	
				NBT	1.00	1700	0	.09*	
	<	v	>	NBR	0.00	0	52	.00	
				SBL	0.00	0	0	.00	
				^ 0	SBT	1.00	1700	0	.00
				< 121	SBR	0.00	0	.00	
0	^			v 80	EBL	0.00	0	.00	
587	>	*			EBT	1.00	1700	587	.41*
105	v				EBR	0.00	0	105	.00
			*		WBL	0.00	0	80	.00
					WBT	1.00	1700	121	.14
					WBR	0.00	0	0	.00
	166	0	52						
								CYCLE TIME LOSS FACTOR 0.00	
								TOTAL ICU 0.50	

LEVEL OF SERVICE = A

## MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING + PROJECT)

				LANES	CAP	VOL	V/C		
N	10	0	0	NBL	0.00	0	27	.00	
				NBT	1.00	1700	0	.04*	
	<	v	>	NBR	0.00	0	28	.00	
				SBL	0.00	0	0	.00	
				^ 0	SBT	1.00	1700	0	.00
				< 156	SBR	0.00	0	.00	
0	^			v 28	EBL	0.00	0	.00	
201	>	*			EBT	1.00	1700	201	.14*
44	v				EBR	0.00	0	44	.00
			*		WBL	0.00	0	28	.00
					WBT	1.00	1700	156	.12
	127	0	28		WBR	0.00	0	0	.00
								CYCLE TIME LOSS FACTOR 0.00	
								TOTAL ICU 0.18	

LEVEL OF SERVICE = A

ENTER CHOICE: (USE CAPS)

<E>ND <C>HANGE <N>EW <T>OP OF PAGE PRINT <B>OTTOM OF PAGE PRINT <S>AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-19-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700484

**MILES/DUNE PALMS -- AM PEAK HOUR (EXISTING+GROWTH+PROJECT+RELATED) W/ MITIGATION**

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.39
				NBT	1.00	1700	0
				NBR	0.00	0	.67
				SBL	0.00	0	.00
				^ 0	SBT	1.00	1700
				< 319	SBR	0.00	0
0	^			v 94	EBL	0.00	0
1309	>	*			EBT	2.00	3400
353	v				EBR	0.00	0
	*				WBL	0.00	94
					WBT	1.00	1700
					WBR	0.00	0
	139	0	67				
							CYCLE TIME LOSS FACTOR
							0.00
							TOTAL ICU
							0.65
							LEVEL OF SERVICE = B

**MILES/DUNE PALMS -- PM PEAK HOUR (EXISTING+GROWTH+PROJECT+RELATED) W/MITIGATION**

				LANES	CAP	VOL	V/C
N	10	0	0	NBL	0.00	0	.242
				NBT	1.00	1700	0
				NBR	0.00	0	.45
				SBL	0.00	0	.00
				^ 0	SBT	1.00	1700
		*	< 588	SBR	0.00	0	.00
0	^			EBL	0.00	0	.00
554	>			EBT	2.00	3400	.554
178	v			EBR	0.00	0	.178
	*			WBL	0.00	0	.47
				WBT	1.00	1700	.588
				WBR	0.00	0	.00
	242	0	45				CYCLE TIME LOSS FACTOR
							0.00
							TOTAL ICU
							0.63
							LEVEL OF SERVICE = B

ENTER CHOICE: (USE CAPS)

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**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-19-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (EXISTING+GROWTH+PROJECT) W/ MITIGATION

				LANES	CAP	VOL	V/C
N	1225	0	360	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
	<	v	>	SBL	1.00	1700	.360
	*			^ 408	SBT	1.00	.13
				* < 882	SBR	0.00	.225
243	^ *		v 0	EBL	1.00	1700	.243
861	>			EBT	2.00	3400	.861
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.882
				WBR	0.00	0	.408
10	0	0	0		CYCLE TIME LOSS FACTOR		0.00
					TOTAL ICU		0.73
					LEVEL OF SERVICE = C		

STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (EXISTING+GROWTH+PROJECT) W/ MITIGATION

				LANES	CAP	VOL	V/C
N	187	0	245	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
	<	v	>	SBL	1.00	1700	.245
	*			^ 129	SBT	1.00	.11
				* < 980	SBR	0.00	.187
141	^ *		v 0	EBL	1.00	1700	.141
957	>			EBT	2.00	3400	.957
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.980
				WBR	0.00	0	.129
10	0	0	0		CYCLE TIME LOSS FACTOR		0.00
					TOTAL ICU		0.55
					LEVEL OF SERVICE = A		

ENTER CHOICE: (USE CAPS)

<E>ND <C>CHANGE <N>EW <T>OP OF PAGE PRINT <B>OTTOM OF PAGE PRINT <S>AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-19-1989

**HERMAN KIMMEL and ASSOCIATES**  
TRAFFIC ENGINEERING CONSULTANTS

JOB NO. 700484

STATE HWY 111/DUNE PALMS -- AM PEAK HOUR (E + G + P + R) W/ MITIGATION

				LANES	CAP	VOL	V/C
N	1322	0	425	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v.	SBL	1.00	1700	.25*
		*		^ 432	SBT	1.00	.19
		*	< 882	SBR	0.00	0	.00
280	^ *		v 0	EBL	1.00	1700	.16*
861	>			EBT	2.00	3400	.25
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.39*
				WBR	0.00	0	.00
	0	0	0				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.80

LEVEL OF SERVICE = C

STATE HWY 111/DUNE PALMS -- PM PEAK HOUR (E + G + P + R) W/ MITIGATION

				LANES	CAP	VOL	V/C
N	1250	0	287	NBL	0.00	0	.00
				NBT	1.00	1700	.00
				NBR	0.00	0	.00
		<	v.	SBL	1.00	1700	.17*
		*		^ 212	SBT	1.00	.15
		*	< 980	SBR	0.00	0	.00
259	^ *		v 0	EBL	1.00	1700	.15*
861	>			EBT	2.00	3400	.25
0	v			EBR	0.00	0	.00
				WBL	1.00	1700	.00
				WBT	2.00	3400	.35*
				WBR	0.00	0	.00
	0	0	0				

CYCLE TIME LOSS FACTOR 0.00

TOTAL ICU 0.67

LEVEL OF SERVICE = B

ENTER CHOICE: (USE CAPS)

<E>ND <C>HANGE <N>EW <T>OP OF PAGE PRINT <B>OTTOM OF PAGE PRINT <S>AVE

**INTERSECTION CAPACITY UTILIZATION ANALYSIS**

09-19-1989

**HERMAN KIMMEL and ASSOCIATES  
TRAFFIC ENGINEERING CONSULTANTS**

JOB NO. 700485

**JEFFERSON/MILES -- AM PEAK HOUR (E + G + P + R) WITH MITIGATION**

				LANES	CAP	VOL	V/C
N	181	365	14	NBL	0.00	0	.27
				NBT	1.00	1700	.214
				NBR	0.00	0	.34
				SBL	0.00	0	.14
				SBT	1.00	1700	.365
			^ 28	SBR	1.00	1700	.81
			< 442	EBL	0.00	0	.79
79			v 16	EBT	2.00	3400	1449
1449	>	*		EBR	0.00	0	.18
18	v			WBL	0.00	0	.16
				WBT	1.00	1700	.442
				WBR	1.00	1700	.28
	127	214	34				
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.70

LEVEL OF SERVICE = B

**JEFFERSON/MILES -- PM PEAK HOUR (E + G + P + R) WITH MITIGATION**

				LANES	CAP	VOL	V/C
N	133	314	14	NBL	0.00	0	.14
				NBT	1.00	1700	.266
				NBR	0.00	0	.12
				SBL	0.00	0	.14
			^ 124	SBT	1.00	1700	.314
			* < 670	SBR	1.00	1700	.33
45			v 18	EBL	0.00	0	.45
556	>			EBT	2.00	3400	.556
16	v			EBR	0.00	0	.16
				WBL	0.00	0	.18
				WBT	1.00	1700	.670
	114	266	12	WBR	1.00	1700	.124
							CYCLE TIME LOSS FACTOR 0.00
							TOTAL ICU 0.61

LEVEL OF SERVICE = B

ENTER CHOICE: (USE CAPS)

&lt;E&gt;ND &lt;C&gt;HANGE &lt;N&gt;EW &lt;T&gt;OP OF PAGE PRINT &lt;B&gt;OTTOM OF PAGE PRINT &lt;S&gt;AVE

**APPENDIX C**

**TRAFFIC COUNT DATA**

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO  
STREET NAME: MILES AVE  
LOCATION : W/O CLINTON ST**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL.**

TIME	EAST BOUND	WEST BOUND	TOTAL COUNT	% OF TOTAL
12:00 AM	27	10	37	1%
1:00	10	10	20	0%
2:00	23	15	38	1%
3:00	7	5	12	0%
4:00	12	4	16	0%
5:00	29	35	64	1%
6:00	79	154	233	4%
7:00	172	165	337	6%
8:00	205	197	402	7%
9:00	186	136	322	5%
10:00	210	143	353	6%
11:00	230	168	398	7%
12:00 PM	189	204	393	7%
1:00	254	138	392	7%
2:00	256	142	398	7%
3:00	263	183	446	7%
4:00	251	173	424	7%
5:00	279	214	493	8%
6:00	175	187	362	6%
7:00	173	118	291	5%
8:00	131	93	224	4%
9:00	89	90	179	3%
10:00	73	52	125	2%
11:00	35	36	71	1%
	3,358	2,672	6,030	

**PREPARED FOR: HERMAN KIMMEL & ASSOCIATES, INC.**

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET NAME: CLINTON ST  
LOCATION : N/Q MILES AVE**

**DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS**

<b>TOTAL</b>	<b>AM</b>	<b>PM</b>	<b>TOTAL</b>
22	<u>1200-1215</u>		139
20	<u>1215-1230</u>		151
8	<u>1230-1245</u>		160
9	<u>1245-0100</u>		155
10	<u>0100-0115</u>		154
13	<u>0115-0130</u>		128
17	<u>0130-0145</u>		139
15	<u>0145-0200</u>		156
6	<u>0200-0215</u>		160
11	<u>0215-0230</u>		164
4	<u>0230-0245</u>		173
10	<u>0245-0300</u>		154
8	<u>0300-0315</u>		193
11	<u>0315-0330</u>		201
8	<u>0330-0345</u>		194
7	<u>0345-0400</u>		197
9	<u>0400-0415</u>		186
20	<u>0415-0430</u>		165
16	<u>0430-0445</u>		186
43	<u>0445-0500</u>		158
55	<u>0500-0515</u>		250
80	<u>0515-0530</u>		200
69	<u>0530-0545</u>		185
68	<u>0545-0600</u>		181
98	<u>0600-0615</u>		136
90	<u>0615-0630</u>		142
127	<u>0630-0645</u>		156
98	<u>0645-0700</u>		164
119	<u>0700-0715</u>		127
163	<u>0715-0730</u>		125
182	<u>0730-0745</u>		117
145	<u>0745-0800</u>		124
139	<u>0800-0815</u>		101
114	<u>0815-0830</u>		104
150	<u>0830-0845</u>		83
123	<u>0845-0900</u>		102
132	<u>0900-0915</u>		87
109	<u>0915-0930</u>		86
138	<u>0930-0945</u>		82
125	<u>0945-1000</u>		70
117	<u>1000-1015</u>		67
122	<u>1015-1030</u>		59
120	<u>1030-1045</u>		58
144	<u>1045-1100</u>		47
143	<u>1100-1115</u>		37
134	<u>1115-1130</u>		34
148	<u>1130-1145</u>		27
147	<u>1145-1200</u>		21
<b>3,666</b>			<b>6,285</b>
<b>TOTAL VOLUME:</b>			<b>9,951</b>

**TRAFFIC COUNT SUMMARY - PEAK PERCENTAGES**

CITY : INDIO  
STREET NAME: CLINTON ST  
LOCATION : N/O MILES AVE

DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS

PEAK HOUR	TIME	COUNT	% OF TOTAL
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**TOTAL ALL DIRECTIONS**

AM	7:15 TO 8:15	629	6 %
MID-DAY	1:45 TO 2:45	653	7 %
PM	5:00 TO 6:00	816	8 %

**HIGHEST PEAK HOUR IN 24 HOUR PERIOD**

PM	5:00 TO 6:00	816	8 %
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**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO**  
**STREET NAME: MADISON ST**  
**LOCATION : S/O MILES AVE**

**DATE: 22 AUG 1989**  
**DAY : TUESDAY**  
**TYPE: DIRECTIONAL**

TIME	NORTH BOUND	SOUTH BOUND	TOTAL COUNT	% OF TOTAL
<b>12:00 AM</b>	15	10	25	1%
<b>1:00</b>	5	12	17	0%
<b>2:00</b>	4	12	16	0%
<b>3:00</b>	6	3	9	0%
<b>4:00</b>	8	3	11	0%
<b>5:00</b>	29	21	50	1%
<b>6:00</b>	75	61	136	3%
<b>7:00</b>	120	100	220	5%
<b>8:00</b>	117	124	241	6%
<b>9:00</b>	119	79	198	5%
<b>10:00</b>	127	112	239	6%
<b>11:00</b>	149	109	258	6%
<b>12:00 PM</b>	130	115	245	6%
<b>1:00</b>	167	96	263	6%
<b>2:00</b>	169	137	306	7%
<b>3:00</b>	174	147	321	8%
<b>4:00</b>	167	132	299	7%
<b>5:00</b>	185	181	366	9%
<b>6:00</b>	134	137	271	7%
<b>7:00</b>	123	98	221	5%
<b>8:00</b>	84	88	172	4%
<b>9:00</b>	71	64	135	3%
<b>10:00</b>	45	34	79	2%
<b>11:00</b>	18	23	41	1%
	<b>2,241</b>	<b>1,898</b>	<b>4,139</b>	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : MADISON ST  
LOCATION: S/O MILES AVE**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

NORTH BOUND	SOUTH BOUND	TOTAL COUNT	TIME		NORTH BOUND	SOUTH BOUND	TOTAL COUNT
			AM	PM			
4	5	9	1200-1215		25	35	60
6	2	8	1215-1230		27	27	54
3	2	5	1230-1245		33	21	54
2	1	3	1245-0100		45	32	77
0	1	1	0100-0115		46	24	70
2	4	6	0115-0130		38	28	66
1	5	6	0130-0145		45	24	69
2	2	4	0145-0200		38	20	58
3	4	7	0200-0215		44	32	73
1	1	2	0215-0230		40	33	73
0	4	4	0230-0245		37	32	69
0	3	3	0245-0300		48	40	88
2	1	3	0300-0315		46	44	90
1	0	1	0315-0330		48	27	75
1	1	2	0330-0345		47	39	86
2	1	3	0345-0400		33	37	70
1	0	1	0400-0415		40	38	78
2	0	2	0415-0430		46	29	75
1	1	2	0430-0445		41	36	77
4	2	6	0445-0500		40	29	69
3	4	7	0500-0515		47	40	87
8	2	10	0515-0530		48	54	102
5	6	11	0530-0545		46	50	96
13	9	22	0545-0600		44	37	81
16	11	27	0600-0615		41	38	79
12	10	22	0615-0630		31	36	67
23	16	39	0630-0645		32	37	69
24	24	48	0645-0700		30	26	56
26	21	47	0700-0715		32	28	60
23	26	49	0715-0730		38	23	61
34	22	56	0730-0745		28	21	51
37	31	68	0745-0800		25	26	51
28	38	66	0800-0815		18	18	36
31	27	58	0815-0830		30	30	60
32	28	60	0830-0845		19	21	40
26	31	57	0845-0900		17	19	36
24	27	51	0900-0915		22	10	32
30	17	47	0915-0930		20	16	36
28	12	40	0930-0945		14	18	32
37	23	60	0945-1000		15	20	35
33	26	59	1000-1015		13	12	25
27	24	51	1015-1030		15	11	26
38	34	72	1030-1045		10	6	16
29	28	57	1045-1100		7	5	12
39	26	65	1100-1115		9	6	15
28	31	59	1115-1130		6	4	10
46	24	70	1130-1145		3	8	11
36	28	64	1145-1200		0	5	5

774

646

1,420

1,467

1,252

2,719

TOTAL COUNT:

4,139

**TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES**

CITY : INDIO  
STREET NAME: MADISON ST  
LOCATION : S/O MILES AVE

DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	% OF TOTAL
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**NORTH BOUND**

AM	9:45 TO 10:45	135	3 %
MID-DAY	12:45 TO 1:45	174	4 %
PM	2:45 TO 3:45	189	5 %

**SOUTH BOUND**

AM	7:45 TO 8:45	124	3 %
MID-DAY	10:30 TO 11:30	119	3 %
PM	5:00 TO 6:00	181	4 %

**HOURLY TOTAL VOLUME**

AM	7:45 TO 8:45	252	6 %
MID-DAY	12:45 TO 1:45	282	7 %
PM	5:00 TO 6:00	366	9 %

**PERCENTAGE BY DIRECTION OF TOTAL COUNT**

<b>NORTH BOUND</b>	2,241	54 %
<b>SOUTH BOUND</b>	1,898	46 %
	<hr/>	<hr/>
	4,139	100 %

**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO  
STREET NAME: MILES AVE  
LOCATION : W/O MADISON**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>TIME</b>	<b>EAST BOUND</b>	<b>WEST BOUND</b>	<b>TOTAL COUNT</b>	<b>% OF TOTAL</b>
<b>12:00 AM</b>	22	14	36	1%
<b>1:00</b>	17	6	23	0%
<b>2:00</b>	20	10	30	0%
<b>3:00</b>	8	7	15	0%
<b>4:00</b>	9	12	21	0%
<b>5:00</b>	20	92	112	2%
<b>6:00</b>	75	196	271	4%
<b>7:00</b>	181	225	406	6%
<b>8:00</b>	207	252	459	7%
<b>9:00</b>	196	172	368	5%
<b>10:00</b>	214	172	386	6%
<b>11:00</b>	233	209	442	7%
<b>12:00 PM</b>	194	206	400	6%
<b>1:00</b>	226	196	422	6%
<b>2:00</b>	285	209	494	7%
<b>3:00</b>	283	208	491	7%
<b>4:00</b>	271	201	472	7%
<b>5:00</b>	319	250	569	8%
<b>6:00</b>	196	191	387	6%
<b>7:00</b>	160	137	297	4%
<b>8:00</b>	133	104	237	4%
<b>9:00</b>	94	89	183	3%
<b>10:00</b>	53	69	122	2%
<b>11:00</b>	34	29	63	1%
	<b>3,450</b>	<b>3,256</b>	<b>6,706</b>	

**PREPARED FOR: HERMAN KIMMEL & ASSOCIATES, INC.**

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : MILES AVE  
LOCATION: W/O MADISON**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>EAST BOUND</b>	<b>WEST BOUND</b>	<b>TOTAL COUNT</b>	<b>TIME</b>		<b>EAST BOUND</b>	<b>WEST BOUND</b>	<b>TOTAL COUNT</b>
			<b>AM</b>	<b>PM</b>			
8	5	13	1200-1215		48	52	100
3	2	5	1215-1230		43	51	94
6	3	9	1230-1245		55	46	101
5	4	9	1245-0100		48	57	105
4	2	6	0100-0115		75	36	111
7	3	10	0115-0130		57	58	115
4	0	4	0130-0145		51	49	100
2	1	3	0145-0200		43	53	96
5	2	7	0200-0215		55	57	112
3	3	6	0215-0230		85	39	124
9	3	12	0230-0245		70	44	114
3	2	5	0245-0300		75	69	144
1	4	5	0300-0315		76	49	125
2	1	3	0315-0330		67	56	123
2	0	2	0330-0345		66	54	120
3	2	5	0345-0400		74	49	123
1	3	4	0400-0415		65	58	123
0	2	2	0415-0430		66	46	112
2	2	4	0430-0445		67	49	116
6	5	11	0445-0500		73	48	121
3	9	12	0500-0515		62	47	109
2	20	22	0515-0530		87	85	172
5	21	26	0530-0545		96	55	151
10	42	52	0545-0600		74	63	137
17	51	68	0600-0615		53	58	111
11	41	52	0615-0630		39	48	87
18	43	61	0630-0645		56	40	96
29	61	90	0645-0700		48	45	93
25	57	82	0700-0715		39	32	71
49	33	82	0715-0730		47	40	87
46	59	105	0730-0745		38	33	71
61	76	137	0745-0800		36	32	68
63	80	143	0800-0815		29	26	55
49	54	103	0815-0830		49	35	84
47	62	109	0830-0845		27	21	48
48	56	104	0845-0900		28	22	50
54	54	108	0900-0915		20	30	50
34	35	69	0915-0930		21	24	45
35	44	79	0930-0945		30	19	49
73	39	112	0945-1000		23	16	39
57	53	110	1000-1015		14	24	38
43	38	81	1015-1030		18	18	36
53	46	99	1030-1045		15	13	28
61	35	96	1045-1100		6	14	20
63	59	122	1100-1115		13	16	29
60	49	109	1115-1130		5	8	13
46	53	99	1130-1145		7	2	9
64	48	112	1145-1200		9	3	12
<b>1,202</b>		<b>1,367</b>	<b>2,569</b>		<b>2,248</b>	<b>1,889</b>	<b>4,137</b>
					<b>TOTAL COUNT:</b>		<b>6,706</b>

# TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES

CITY : INDIO  
 STREET NAME: MILES AVE  
 LOCATION : W/O CLINTON ST

DATE: 22 AUG 1989  
 DAY : TUESDAY  
 TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	% OF TOTAL
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## EAST BOUND

AM	7:30 TO 8:30	223	4 %
MID-DAY	1:00 TO 2:00	254	4 %
PM	5:00 TO 6:00	279	5 %

## WEST BOUND

AM	7:45 TO 8:45	198	3 %
MID-DAY	12:00 TO 1:00	204	3 %
PM	5:15 TO 6:15	237	4 %

## HOURLY TOTAL VOLUME

AM	7:45 TO 8:45	418	7 %
MID-DAY	12:45 TO 1:45	409	7 %
PM	5:00 TO 6:00	493	8 %

## PERCENTAGE BY DIRECTION OF TOTAL COUNT

EAST BOUND	3,358	56 %
WEST BOUND	2,672	44 %
	<hr/>	<hr/>
	6,030	100 %

## TIME TABLE

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDO**  
**STREET NAME: MILES AVE**  
**LOCATION : W/O CLINTON ST**

**DATE: 22 AUG 1989**

**DAY : TUESDAY**

**TYPE: DIRECTIONAL.**

TIME	EAST BOUND	WEST BOUND	TOTAL COUNT	% OF TOTAL
12:00 AM	27	10	37	1%
1:00	10	10	20	0%
2:00	23	15	38	1%
3:00	7	5	12	0%
4:00	12	4	16	0%
5:00	29	35	64	1%
6:00	79	154	233	4%
7:00	172	165	337	6%
8:00	205	197	402	7%
9:00	186	136	322	5%
10:00	210	143	353	6%
11:00	230	168	398	7%
12:00 PM	189	204	393	7%
1:00	254	138	392	7%
2:00	256	142	398	7%
3:00	263	183	446	7%
4:00	251	173	424	7%
5:00	279	214	493	8%
6:00	175	187	362	6%
7:00	173	118	291	5%
8:00	131	93	224	4%
9:00	89	90	179	3%
10:00	73	52	125	2%
11:00	35	36	71	1%
	3,358	2,672	6,030	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : MILES AVE  
LOCATION: W/O CLINTON ST**

**DATE: 22-AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>EAST BOUND</b>	<b>WEST BOUND</b>	<b>TOTAL COUNT</b>	<b>TIME</b>	<b>EAST BOUND</b>	<b>WEST BOUND</b>	<b>TOTAL COUNT</b>
				<b>AM</b>		
6	5	11	1200-1215	43	52	95
9	1	10	1215-1230	51	55	106
7	4	11	1230-1245	48	41	89
5	0	5	1245-0100	47	56	103
4	2	6	0100-0115	69	25	94
2	3	5	0115-0130	71	49	120
3	1	4	0130-0145	59	33	92
1	4	5	0145-0200	55	31	86
7	6	13	0200-0215	53	44	97
2	3	5	0215-0230	81	26	107
9	4	13	0230-0245	63	29	92
5	2	7	0245-0300	59	43	102
2	1	3	0300-0315	64	47	111
0	2	2	0315-0330	69	44	113
3	1	4	0330-0345	74	45	119
2	1	3	0345-0400	56	47	103
4	1	5	0400-0415	70	46	116
1	2	3	0415-0430	59	36	95
2	1	3	0430-0445	64	44	108
5	0	5	0445-0500	58	47	105
6	3	9	0500-0515	61	34	95
7	4	11	0515-0530	76	81	157
3	10	13	0530-0545	72	40	112
13	18	31	0545-0600	70	59	129
19	36	55	0600-0615	44	57	101
11	43	54	0615-0630	36	42	78
18	39	57	0630-0645	52	46	98
31	36	67	0645-0700	43	42	85
34	49	83	0700-0715	46	29	75
37	42	79	0715-0730	51	36	87
46	29	75	0730-0745	43	25	68
55	45	100	0745-0800	33	28	61
77	55	132	0800-0815	37	19	56
45	51	96	0815-0830	36	29	65
43	47	90	0830-0845	32	25	57
40	44	84	0845-0900	26	20	46
42	49	91	0900-0915	20	23	43
47	29	76	0915-0930	24	24	48
48	25	73	0930-0945	25	25	50
49	33	82	0945-1000	20	18	38
57	41	98	1000-1015	24	15	39
40	29	69	1015-1030	14	14	28
58	38	96	1030-1045	23	12	35
55	35	90	1045-1100	12	11	23
49	45	94	1100-1115	7	16	23
59	42	101	1115-1130	13	8	21
57	40	97	1130-1145	7	9	16
65	41	106	1145-1200	8	3	11

1,190      1,042      2,232

2,168      1,630      3,798  
**TOTAL COUNT:** 6,030

**TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES**

CITY : INDIO  
STREET NAME: MILES AVE  
LOCATION : W/O MADISON

DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	% OF TOTAL
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**EAST BOUND**

AM	9:45 TO 10:45	226	3 %
MID-DAY	1:45 TO 2:45	253	4 %
PM	5:00 TO 6:00	319	5 %

**WEST BOUND**

AM	7:45 TO 8:45	272	4 %
MID-DAY	1:15 TO 2:15	217	3 %
PM	5:15 TO 6:15	261	4 %

**HOURLY TOTAL VOLUME**

AM	7:45 TO 8:45	492	7 %
MID-DAY	11:00 TO 12:00	442	7 %
PM	5:00 TO 6:00	569	8 %

**PERCENTAGE BY DIRECTION OF TOTAL COUNT**

EAST BOUND	3,450	51 %
WEST BOUND	3,256	49 %
	6,706	100 %

**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY** : INDO  
**STREET NAME:** CLINTON ST  
**LOCATION** : N/O MILES AVE

**DATE:** 30 AUG 1989  
**DAY :** WEDNESDAY  
**TYPE:** TOTALS

<b>TIME</b>	<b>HOURLY TOTALS</b>	<b>% OF TOTAL VOLUME</b>
<b>12:00 AM</b>		
_____>	59	1 %
<b>1:00</b>		
_____>	55	1 %
<b>2:00</b>		
_____>	31	0 %
<b>3:00</b>		
_____>	34	0 %
<b>4:00</b>		
_____>	88	1 %
<b>5:00</b>		
_____>	272	3 %
<b>6:00</b>		
_____>	413	4 %
<b>7:00</b>		
_____>	609	6 %
<b>8:00</b>		
_____>	526	5 %
<b>9:00</b>		
_____>	504	5 %
<b>10:00</b>		
_____>	503	5 %
<b>11:00</b>		
_____>	572	6 %
<b>12:00 PM</b>		
_____>	605	6 %
<b>1:00</b>		
_____>	577	6 %
<b>2:00</b>		
_____>	651	7 %
<b>3:00</b>		
_____>	785	8 %
<b>4:00</b>		
_____>	695	7 %
<b>5:00</b>		
_____>	816	8 %
<b>6:00</b>		
_____>	598	6 %
<b>7:00</b>		
_____>	493	5 %
<b>8:00</b>		
_____>	390	4 %
<b>9:00</b>		
_____>	325	3 %
<b>10:00</b>		
_____>	231	2 %
<b>11:00</b>		
_____>	119	1 %
	<b>9,951</b>	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY** : INDIO  
**STREET NAME:** 46TH ST  
**LOCATION** : E/O MADISON ST

**DATE:** 30 AUG 1989  
**DAY :** WEDNESDAY  
**TYPE:** TOTALS

<b>TOTAL</b>	<b>AM</b>	<b>PM</b>	<b>TOTAL</b>
7	<u>1200-1215</u>		35
0	<u>1215-1230</u>		34
2	<u>1230-1245</u>		41
5	<u>1245-0100</u>		39
4	<u>0100-0115</u>		45
6	<u>0115-0130</u>		42
3	<u>0130-0145</u>		43
4	<u>0145-0200</u>		50
1	<u>0200-0215</u>		40
0	<u>0215-0230</u>		46
4	<u>0230-0245</u>		53
0	<u>0245-0300</u>		44
3	<u>0300-0315</u>		50
1	<u>0315-0330</u>		64
0	<u>0330-0345</u>		57
2	<u>0345-0400</u>		51
0	<u>0400-0415</u>		36
0	<u>0415-0430</u>		37
4	<u>0430-0445</u>		48
3	<u>0445-0500</u>		38
7	<u>0500-0515</u>		63
10	<u>0515-0530</u>		52
22	<u>0530-0545</u>		54
25	<u>0545-0600</u>		43
15	<u>0600-0615</u>		49
21	<u>0615-0630</u>		42
35	<u>0630-0645</u>		37
30	<u>0645-0700</u>		32
29	<u>0700-0715</u>		47
30	<u>0715-0730</u>		33
50	<u>0730-0745</u>		30
36	<u>0745-0800</u>		27
35	<u>0800-0815</u>		23
28	<u>0815-0830</u>		22
37	<u>0830-0845</u>		15
39	<u>0845-0900</u>		23
33	<u>0900-0915</u>		26
27	<u>0915-0930</u>		20
38	<u>0930-0945</u>		15
29	<u>0945-1000</u>		10
33	<u>1000-1015</u>		11
34	<u>1015-1030</u>		13
31	<u>1030-1045</u>		12
43	<u>1045-1100</u>		6
35	<u>1100-1115</u>		3
40	<u>1115-1130</u>		8
33	<u>1130-1145</u>		5
38	<u>1145-1200</u>		6

912

1,620

**TOTAL VOLUME: 2,532**

# **TRAFFIC COUNT SUMMARY - PEAK PERCENTAGES**

**CITY : INDIO  
STREET NAME: 46TH ST  
LOCATION : E/O MADISON ST**

**DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS**

<b>PEAK HOUR</b>	<b>TIME</b>	<b>COUNT</b>	<b>% OF TOTAL</b>
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## **TOTAL ALL DIRECTIONS**

AM	7:15 TO 8:15	151	6 %
MID-DAY	1:45 TO 2:45	189	7 %
PM	3:00 TO 4:00	222	9 %

## **HIGHEST PEAK HOUR IN 24 HOUR PERIOD**

PM	3:00 TO 4:00	222	9 %
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## **TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO  
STREET NAME: 46TH ST  
LOCATION : E/O MADISON ST**

**DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS**

<b>TIME</b>	<b>HOURLY TOTALS</b>	<b>% OF TOTAL VOLUME</b>
<b>12:00 AM</b>		
_____>	14	1 %
<b>1:00</b>		
_____>	17	1 %
<b>2:00</b>		
_____>	5	0 %
<b>3:00</b>		
_____>	6	0 %
<b>4:00</b>		
_____>	7	0 %
<b>5:00</b>		
_____>	64	3 %
<b>6:00</b>		
_____>	101	4 %
<b>7:00</b>		
_____>	145	6 %
<b>8:00</b>		
_____>	139	5 %
<b>9:00</b>		
_____>	127	5 %
<b>10:00</b>		
_____>	141	6 %
<b>11:00</b>		
_____>	146	6 %
<b>12:00 PM</b>		
_____>	149	6 %
<b>1:00</b>		
_____>	180	7 %
<b>2:00</b>		
_____>	183	7 %
<b>3:00</b>		
_____>	222	9 %
<b>4:00</b>		
_____>	159	6 %
<b>5:00</b>		
_____>	212	8 %
<b>6:00</b>		
_____>	160	6 %
<b>7:00</b>		
_____>	137	5 %
<b>8:00</b>		
_____>	83	3 %
<b>9:00</b>		
_____>	71	3 %
<b>10:00</b>		
_____>	42	2 %
<b>11:00</b>		
_____>	22	1 %

2,532

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY** : INDIO  
**STREET NAME:** MADISON ST  
**LOCATION** : S/O 46TH ST

**DATE:** 30 AUG 1989  
**DAY :** WEDNESDAY  
**TYPE: TOTALS**

TIME	HOURLY TOTALS	% OF TOTAL VOLUME
<b>12:00 AM</b>	22	1 %
<b>1:00</b>	21	1 %
<b>2:00</b>	12	0 %
<b>3:00</b>	7	0 %
<b>4:00</b>	5	0 %
<b>5:00</b>	43	1 %
<b>6:00</b>	119	3 %
<b>7:00</b>	190	5 %
<b>8:00</b>	222	6 %
<b>9:00</b>	239	6 %
<b>10:00</b>	256	7 %
<b>11:00</b>	308	8 %
<b>12:00 PM</b>	314	8 %
<b>1:00</b>	364	10 %
<b>2:00</b>	311	8 %
<b>3:00</b>	334	9 %
<b>4:00</b>	333	9 %
<b>5:00</b>	238	6 %
<b>6:00</b>	157	4 %
<b>7:00</b>	132	3 %
<b>8:00</b>	72	2 %
<b>9:00</b>	48	1 %
<b>10:00</b>	47	1 %
<b>11:00</b>	26	1 %
	<b>3,820</b>	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET NAME: MADISON ST  
LOCATION : S/O 46TH ST**

**DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS**

<b>TOTAL</b>	<b>AM</b>	<b>PM</b>	<b>TOTAL</b>
9	<u>1200-1215</u>		76
7	<u>1215-1230</u>		87
2	<u>1230-1245</u>		62
4	<u>1245-0100</u>		89
9	<u>0100-0115</u>		90
3	<u>0115-0130</u>		79
4	<u>0130-0145</u>		92
5	<u>0145-0200</u>		103
9	<u>0200-0215</u>		85
0	<u>0215-0230</u>		74
0	<u>0230-0245</u>		81
3	<u>0245-0300</u>		71
4	<u>0300-0315</u>		80
3	<u>0315-0330</u>		89
0	<u>0330-0345</u>		84
0	<u>0345-0400</u>		81
1	<u>0400-0415</u>		87
1	<u>0415-0430</u>		85
2	<u>0430-0445</u>		79
1	<u>0445-0500</u>		82
2	<u>0500-0515</u>		73
9	<u>0515-0530</u>		53
11	<u>0530-0545</u>		61
21	<u>0545-0600</u>		51
23	<u>0600-0615</u>		32
22	<u>0615-0630</u>		47
24	<u>0630-0645</u>		48
50	<u>0645-0700</u>		30
33	<u>0700-0715</u>		39
45	<u>0715-0730</u>		40
44	<u>0730-0745</u>		27
68	<u>0745-0800</u>		26
67	<u>0800-0815</u>		19
59	<u>0815-0830</u>		18
46	<u>0830-0845</u>		20
50	<u>0845-0900</u>		15
65	<u>0900-0915</u>		11
60	<u>0915-0930</u>		10
51	<u>0930-0945</u>		14
63	<u>0945-1000</u>		13
58	<u>1000-1015</u>		9
60	<u>1015-1030</u>		10
66	<u>1030-1045</u>		17
72	<u>1045-1100</u>		11
78	<u>1100-1115</u>		7
79	<u>1115-1130</u>		5
77	<u>1130-1145</u>		8
74	<u>1145-1200</u>		6
<hr/> <b>1,444</b>			<b>2,376</b>
			<b>TOTAL VOLUME: 3,820</b>

# **TRAFFIC COUNT SUMMARY - PEAK PERCENTAGES**

**CITY : INDIO  
STREET NAME: MADISON ST  
LOCATION : S/O 46TH ST**

**DATE: 30 AUG 1989  
DAY : WEDNESDAY  
TYPE: TOTALS**

<b>PEAK HOUR</b>	<b>TIME</b>	<b>COUNT</b>	<b>% OF TOTAL</b>
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## **TOTAL ALL DIRECTIONS**

<b>AM</b>	<b>9:45 TO 10:45</b>	<b>247</b>	<b>6 %</b>
<b>MID-DAY</b>	<b>1:00 TO 2:00</b>	<b>364</b>	<b>10 %</b>
<b>PM</b>	<b>3:15 TO 4:15</b>	<b>341</b>	<b>9 %</b>

## **HIGHEST PEAK HOUR IN 24 HOUR PERIOD**

<b>PM</b>	<b>1:00 TO 2:00</b>	<b>364</b>	<b>10 %</b>
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## **TIME TABLE**

<b>AM</b>	<b>- 6:00 AM TO 10:00 AM</b>
<b>MID-DAY</b>	<b>- 10:00 AM TO 2:00 PM</b>
<b>PM</b>	<b>- 2:00 PM TO 6:00 PM</b>

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY** : INDIO  
**STREET NAME:** JEFFERSON ST  
**LOCATION** : S/O MILES ST

**DATE:** 22 AUG 1989  
**DAY :** TUESDAY  
**TYPE:** DIRECTIONAL

TIME	NORTH BOUND	SOUTH BOUND	TOTAL COUNT	% OF TOTAL
12:00 AM	8	19	27	1%
1:00	6	12	18	0%
2:00	6	4	10	0%
3:00	8	7	15	0%
4:00	2	9	11	0%
5:00	51	50	101	2%
6:00	121	145	266	6%
7:00	143	148	291	6%
8:00	161	163	324	7%
9:00	149	124	273	6%
10:00	144	149	293	7%
11:00	123	106	229	5%
12:00 PM	132	135	267	6%
1:00	160	128	288	6%
2:00	196	148	344	8%
3:00	185	153	338	8%
4:00	174	131	305	7%
5:00	165	145	310	7%
6:00	126	113	239	5%
7:00	92	105	197	4%
8:00	65	57	122	3%
9:00	48	56	104	2%
10:00	37	33	70	2%
11:00	13	22	35	1%
	2,315	2,162	4,477	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : JEFFERSON ST  
LOCATION: S/O MILES ST**

**DATE: 22-AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>NORTH BOUND</b>	<b>SOUTH BOUND</b>	<b>TOTAL COUNT</b>	<b>TIME</b>		<b>NORTH BOUND</b>	<b>SOUTH BOUND</b>	<b>TOTAL COUNT</b>
			<b>AM</b>	<b>PM</b>			
1	10	11	1200-1215		39	48	87
2	6	8	1215-1230		25	24	49
3	2	5	1230-1245		38	27	65
2	1	3	1245-0100		30	36	66
0	3	3	0100-0115		52	20	72
2	2	4	0115-0130		31	29	60
1	4	5	0130-0145		43	41	84
3	3	6	0145-0200		34	38	72
2	1	3	0200-0215		48	35	83
4	1	5	0215-0230		50	32	82
0	2	2	0230-0245		53	33	86
0	0	0	0245-0300		45	48	93
2	1	3	0300-0315		53	37	90
3	1	4	0315-0330		51	38	89
1	3	4	0330-0345		43	27	70
2	2	4	0345-0400		38	51	89
0	4	4	0400-0415		44	37	81
0	3	3	0415-0430		51	24	75
1	1	2	0430-0445		32	38	70
1	1	2	0445-0500		47	32	79
4	4	8	0500-0515		40	41	81
8	2	10	0515-0530		48	40	88
12	10	22	0530-0545		37	35	72
27	34	61	0545-0600		40	29	69
29	42	71	0600-0615		32	31	63
30	40	70	0615-0630		34	33	67
32	24	56	0630-0645		28	32	60
30	39	69	0645-0700		32	17	49
28	32	60	0700-0715		22	29	51
34	41	75	0715-0730		27	23	50
35	36	71	0730-0745		25	25	50
46	39	85	0745-0800		18	28	46
51	40	91	0800-0815		15	11	26
50	48	98	0815-0830		16	13	29
33	41	74	0830-0845		12	18	30
27	34	61	0845-0900		22	15	37
40	43	83	0900-0915		15	14	29
36	28	64	0915-0930		11	16	27
38	24	62	0930-0945		12	18	30
35	29	64	0945-1000		10	8	18
45	26	71	1000-1015		11	9	20
33	45	78	1015-1030		14	10	24
37	41	78	1030-1045		8	9	17
29	37	66	1045-1100		4	5	9
24	25	49	1100-1115		5	7	12
36	27	63	1115-1130		4	6	10
34	29	63	1130-1145		3	7	10
29	25	54	1145-1200		1	2	3
<b>922</b>	<b>936</b>	<b>1,858</b>			<b>1,393</b>	<b>1,226</b>	<b>2,619</b>
						<b>TOTAL COUNT:</b>	<b>4,477</b>

**TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES**

CITY : INDO  
 STREET NAME: JEFFERSON ST  
 LOCATION : S/O MILES ST

DATE: 22 AUG 1989  
 DAY : TUESDAY  
 TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	% OF TOTAL
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**NORTH BOUND**

AM	7:30 TO 8:30	182	4 %
MID-DAY	1:45 TO 2:45	185	4 %
PM	2:30 TO 3:30	202	5 %

**SOUTH BOUND**

AM	7:45 TO 8:45	168	4 %
MID-DAY	10:00 TO 11:00	149	3 %
PM	2:30 TO 3:30	156	3 %

**HOURLY TOTAL VOLUME**

AM	7:45 TO 8:45	348	8 %
MID-DAY	10:00 TO 11:00	293	7 %
PM	2:30 TO 3:30	358	8 %

**PERCENTAGE BY DIRECTION OF TOTAL COUNT**

NORTH BOUND	2,315	52 %
SOUTH BOUND	2,162	48 %
	4,477	100 %

**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO**  
**STREET NAME: DUNES PALM RD**  
**LOCATION : N/O WESTWARD HO**

**DATE: 22 AUG 1989**  
**DAY : TUESDAY**  
**TYPE: TOTALS**

<b>TIME</b>	<b>HOURLY TOTALS</b>	<b>% OF TOTAL VOLUME</b>
<b>12:00 AM</b>		
_____>	6	1 %
<b>1:00</b>		
_____>	1	0 %
<b>2:00</b>		
_____>	6	1 %
<b>3:00</b>		
_____>	4	1 %
<b>4:00</b>		
_____>	4	1 %
<b>5:00</b>		
_____>	20	3 %
<b>6:00</b>		
_____>	29	5 %
<b>7:00</b>		
_____>	32	5 %
<b>8:00</b>		
_____>	28	5 %
<b>9:00</b>		
_____>	33	6 %
<b>10:00</b>		
_____>	36	6 %
<b>11:00</b>		
_____>	37	6 %
<b>12:00 PM</b>		
_____>	31	5 %
<b>1:00</b>		
_____>	41	7 %
<b>2:00</b>		
_____>	55	9 %
<b>3:00</b>		
_____>	38	6 %
<b>4:00</b>		
_____>	38	6 %
<b>5:00</b>		
_____>	36	6 %
<b>6:00</b>		
_____>	40	7 %
<b>7:00</b>		
_____>	38	6 %
<b>8:00</b>		
_____>	10	2 %
<b>9:00</b>		
_____>	14	2 %
<b>10:00</b>		
_____>	6	1 %
<b>11:00</b>		
_____>	5	1 %

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY** : INDO  
**STREET NAME:** DUNES PALM RD  
**LOCATION** : N/O WESTWARD HO

**DATE:** 22 AUG 1989  
**DAY :** TUESDAY  
**TYPE: TOTALS**

<b>TOTAL</b>	<b>AM</b>	<b>PM</b>	<b>TOTAL</b>
0	<u>1200-1215</u>		11
0	<u>1215-1230</u>		7
1	<u>1230-1245</u>		3
5	<u>1245-0100</u>		10
0	<u>0100-0115</u>		8
1	<u>0115-0130</u>		10
0	<u>0130-0145</u>		12
0	<u>0145-0200</u>		11
2	<u>0200-0215</u>		9
0	<u>0215-0230</u>		12
4	<u>0230-0245</u>		20
0	<u>0245-0300</u>		14
0	<u>0300-0315</u>		6
3	<u>0315-0330</u>		11
1	<u>0330-0345</u>		7
0	<u>0345-0400</u>		14
0	<u>0400-0415</u>		5
3	<u>0415-0430</u>		4
1	<u>0430-0445</u>		15
0	<u>0445-0500</u>		14
2	<u>0500-0515</u>		9
3	<u>0515-0530</u>		11
7	<u>0530-0545</u>		6
8	<u>0545-0600</u>		10
9	<u>0600-0615</u>		6
5	<u>0615-0630</u>		7
8	<u>0630-0645</u>		10
7	<u>0645-0700</u>		17
8	<u>0700-0715</u>		11
9	<u>0715-0730</u>		15
11	<u>0730-0745</u>		7
4	<u>0745-0800</u>		5
5	<u>0800-0815</u>		3
7	<u>0815-0830</u>		4
6	<u>0830-0845</u>		2
10	<u>0845-0900</u>		1
14	<u>0900-0915</u>		5
9	<u>0915-0930</u>		2
4	<u>0930-0945</u>		3
6	<u>0945-1000</u>		4
12	<u>1000-1015</u>		0
9	<u>1015-1030</u>		1
7	<u>1030-1045</u>		3
8	<u>1045-1100</u>		2
4	<u>1100-1115</u>		3
10	<u>1115-1130</u>		1
13	<u>1130-1145</u>		1
10	<u>1145-1200</u>		0

236

352

**TOTAL VOLUME: 588**

# **TRAFFIC COUNT SUMMARY - PEAK PERCENTAGES**

**CITY : INDIO  
STREET NAME: DUNES PALM RD  
LOCATION : N/O WESTWARD HO**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: TOTALS**

<b>PEAK HOUR</b>	<b>TIME</b>	<b>COUNT</b>	<b>* OF TOTAL</b>
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## **TOTAL ALL DIRECTIONS**

AM	8:30 TO 9:30	39	7 %
MID-DAY	1:45 TO 2:45	52	9 %
PM	2:00 TO 3:00	55	9 %

## **HIGHEST PEAK HOUR IN 24 HOUR PERIOD**

PM	2:00 TO 3:00	55	9 %
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## **TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY** : INDIO  
**STREET NAME:** WESTWARD HO  
**LOCATION** : E/O DUNES PALM RD

**DATE:** 22 AUG 1989  
**DAY:** TUESDAY  
**TYPE:** DIRECTIONAL

TIME	EAST BOUND	WEST BOUND	TOTAL COUNT	% OF TOTAL
<b>12:00 AM</b>	2	1	3	1%
<b>1:00</b>	1	1	2	1%
<b>2:00</b>	0	0	0	0%
<b>3:00</b>	1	2	3	1%
<b>4:00</b>	3	2	5	2%
<b>5:00</b>	0	1	1	0%
<b>6:00</b>	8	4	12	4%
<b>7:00</b>	7	12	19	6%
<b>8:00</b>	5	8	13	4%
<b>9:00</b>	13	12	25	9%
<b>10:00</b>	9	16	25	9%
<b>11:00</b>	10	5	15	5%
<b>12:00 PM</b>	12	7	19	6%
<b>1:00</b>	12	12	24	8%
<b>2:00</b>	5	8	13	4%
<b>3:00</b>	12	7	19	6%
<b>4:00</b>	8	5	13	4%
<b>5:00</b>	9	14	23	8%
<b>6:00</b>	5	5	10	3%
<b>7:00</b>	9	9	18	6%
<b>8:00</b>	4	7	11	4%
<b>9:00</b>	8	5	13	4%
<b>10:00</b>	3	1	4	1%
<b>11:00</b>	1	2	3	1%

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : WESTWARD HO  
LOCATION: E/O DUNES PALM RD**

**DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>TIME</b>	<b>AM</b>	<b>PM</b>	<b>WEST</b>	<b>TOTAL</b>
	<b>EAST</b>	<b>BOUND</b>	<b>BOUND</b>	<b>COUNT</b>
1200-1215			1	2
1215-1230			4	6
1230-1245			2	3
1245-0100			5	8
0100-0115			1	3
0115-0130			2	6
0130-0145			7	12
0145-0200			2	3
0200-0215			0	2
0215-0230			1	3
0230-0245			3	6
0245-0300			1	2
0300-0315			5	8
0315-0330			2	3
0330-0345			4	6
0345-0400			1	2
0400-0415			1	2
0415-0430			2	2
0430-0445			1	2
0445-0500			4	7
0500-0515			2	9
0515-0530			1	3
0530-0545			3	6
0545-0600			3	5
0600-0615			0	1
0615-0630			1	2
0630-0645			2	2
0645-0700			2	5
0700-0715			3	8
0715-0730			4	6
0730-0745			1	2
0745-0800			1	2
0800-0815			0	1
0815-0830			2	4
0830-0845			1	2
0845-0900			1	4
0900-0915			3	4
0915-0930			0	2
0930-0945			2	2
0945-1000			3	5
1000-1015			1	1
1015-1030			2	2
1030-1045			0	0
1045-1100			0	1
1100-1115			0	0
1115-1130			0	2
1130-1145			0	0
1145-1200			1	1

**TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES**

CITY : INDIO  
 STREET NAME: WESTWARD HO  
 LOCATION : E/O DUNES PALM RD

DATE: 22 AUG 1989  
 DAY : TUESDAY  
 TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	* OF TOTAL
-----------	------	-------	------------

**EAST BOUND**

AM	9:15 TO 10:15	16	5 %
MID-DAY	12:45 TO 1:45	15	5 %
PM	2:45 TO 3:45	12	4 %

**WEST BOUND**

AM	9:45 TO 10:45	17	6 %
MID-DAY	10:00 TO 11:00	16	5 %
PM	4:45 TO 5:45	15	5 %

**HOURLY TOTAL VOLUME**

AM	9:00 TO 10:00	25	9 %
MID-DAY	12:45 TO 1:45	29	10 %
PM	4:45 TO 5:45	25	9 %

**PERCENTAGE BY DIRECTION OF TOTAL COUNT**

EAST BOUND	147	50 %
WEST BOUND	146	50 %
	293	100 %

**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY** : INDIO  
**STREET NAME:** JEFFERSON ST  
**LOCATION** : N/O MILES ST

**DATE:** 22 AUG 1989

**DAY :** TUESDAY

**TYPE:** DIRECTIONAL

TIME	NORTH BOUND	SOUTH BOUND	TOTAL COUNT	% OF TOTAL
<b>12:00 AM</b>	8	14	22	0%
<b>1:00</b>	7	9	16	0%
<b>2:00</b>	8	4	12	0%
<b>3:00</b>	4	10	14	0%
<b>4:00</b>	6	8	14	0%
<b>5:00</b>	77	77	154	3%
<b>6:00</b>	151	140	291	5%
<b>7:00</b>	178	194	372	7%
<b>8:00</b>	160	202	362	6%
<b>9:00</b>	163	156	319	6%
<b>10:00</b>	141	171	312	6%
<b>11:00</b>	160	176	336	6%
<b>12:00 PM</b>	174	168	342	6%
<b>1:00</b>	203	187	390	7%
<b>2:00</b>	226	213	439	8%
<b>3:00</b>	204	201	405	7%
<b>4:00</b>	195	179	374	7%
<b>5:00</b>	226	215	441	8%
<b>6:00</b>	187	141	328	6%
<b>7:00</b>	98	135	233	4%
<b>8:00</b>	79	79	158	3%
<b>9:00</b>	62	76	138	2%
<b>10:00</b>	37	37	74	1%
<b>11:00</b>	15	30	45	1%
	<b>2,769</b>	<b>2,822</b>	<b>5,591</b>	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET : JEFFERSON ST  
LOCATION: N/O MILES ST**

**DATE: 22-AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL**

<b>NORTH BOUND</b>	<b>SOUTH BOUND</b>	<b>TOTAL COUNT</b>	<b>TIME</b>	<b>NORTH BOUND</b>	<b>SOUTH BOUND</b>	<b>TOTAL COUNT</b>
				<b>AM</b>	<b>PM</b>	
2	8	10	1200-1215	38	50	88
1	2	3	1215-1230	42	43	85
3	1	4	1230-1245	46	33	79
2	3	5	1245-0100	48	42	90
3	2	5	0100-0115	46	34	80
1	4	5	0115-0130	49	41	90
2	3	5	0130-0145	50	62	112
1	0	1	0145-0200	58	50	108
3	3	6	0200-0215	54	46	100
1	1	2	0215-0230	55	50	105
0	0	0	0230-0245	61	56	117
4	0	4	0245-0300	56	61	117
3	2	5	0300-0315	59	50	109
1	3	4	0315-0330	50	44	94
0	1	1	0330-0345	39	52	91
0	4	4	0345-0400	56	55	111
0	0	0	0400-0415	54	46	100
1	1	2	0415-0430	49	40	89
1	2	3	0430-0445	51	48	99
4	5	9	0445-0500	41	45	86
3	3	6	0500-0515	68	50	118
15	7	22	0515-0530	50	59	109
28	21	49	0530-0545	63	51	114
31	46	77	0545-0600	45	55	100
30	40	70	0600-0615	46	42	88
34	21	55	0615-0630	44	31	75
50	42	92	0630-0645	40	40	80
37	37	74	0645-0700	57	28	85
33	36	69	0700-0715	32	40	72
43	46	89	0715-0730	29	33	62
49	49	98	0730-0745	20	30	50
53	63	116	0745-0800	17	32	49
59	51	110	0800-0815	26	15	41
35	41	76	0815-0830	14	29	43
37	64	101	0830-0845	27	18	45
29	46	75	0845-0900	12	17	29
40	59	99	0900-0915	18	19	37
48	29	77	0915-0930	13	17	30
32	26	58	0930-0945	15	28	43
43	42	85	0945-1000	16	12	28
37	33	70	1000-1015	14	10	24
38	48	86	1015-1030	9	13	22
27	46	73	1030-1045	4	8	12
39	44	83	1045-1100	10	6	16
42	48	90	1100-1115	8	9	17
44	39	83	1115-1130	4	7	11
33	44	77	1130-1145	1	6	7
41	45	86	1145-1200	2	8	10
<b>1,063</b>	<b>1,161</b>	<b>2,224</b>		<b>1,706</b>	<b>1,661</b>	<b>3,367</b>
<b>TOTAL COUNT:</b>				<b>5,591</b>		

**TRAFFIC COUNT SUMMARY - PEAK AND VOLUME PERCENTAGES**

CITY : INDIO  
STREET NAME: JEFFERSON ST  
LOCATION : N/O MILES ST

DATE: 22 AUG 1989  
DAY : TUESDAY  
TYPE: DIRECTIONAL

PEAK HOUR	TIME	COUNT	% OF TOTAL
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**NORTH BOUND**

AM	7:15 TO 8:15	204	4 %
MID-DAY	1:45 TO 2:45	228	4 %
PM	2:15 TO 3:15	231	4 %

**SOUTH BOUND**

AM	7:45 TO 8:45	219	4 %
MID-DAY	1:30 TO 2:30	208	4 %
PM	2:15 TO 3:15	217	4 %

**HOURLY TOTAL VOLUME**

AM	7:15 TO 8:15	413	7 %
MID-DAY	1:00 TO 2:00	390	7 %
PM	2:15 TO 3:15	448	8 %

**PERCENTAGE BY DIRECTION OF TOTAL COUNT**

NORTH BOUND	2,769	50 %
SOUTH BOUND	2,822	50 %
	5,591	100 %

**TIME TABLE**

AM	- 6:00 AM TO 10:00 AM
MID-DAY	- 10:00 AM TO 2:00 PM
PM	- 2:00 PM TO 6:00 PM

**TRAFFIC COUNT SUMMARY - HOURLY TOTALS**

**CITY : INDIO**  
**STREET NAME: MILES AVE**  
**LOCATION : W/O DUNES PALM RD**

**DATE: 22 AUG 1989**  
**DAY : TUESDAY**  
**TYPE: TOTALS**

<b>TIME</b>	<b>HOURLY TOTALS</b>	<b>% OF TOTAL VOLUME</b>
<b>12:00 AM</b>	<b>24</b>	<b>1 %</b>
<b>1:00</b>	<b>16</b>	<b>0 %</b>
<b>2:00</b>	<b>19</b>	<b>0 %</b>
<b>3:00</b>	<b>8</b>	<b>0 %</b>
<b>4:00</b>	<b>15</b>	<b>0 %</b>
<b>5:00</b>	<b>78</b>	<b>2 %</b>
<b>6:00</b>	<b>185</b>	<b>5 %</b>
<b>7:00</b>	<b>264</b>	<b>7 %</b>
<b>8:00</b>	<b>293</b>	<b>7 %</b>
<b>9:00</b>	<b>253</b>	<b>6 %</b>
<b>10:00</b>	<b>262</b>	<b>7 %</b>
<b>11:00</b>	<b>278</b>	<b>7 %</b>
<b>12:00 PM</b>	<b>228</b>	<b>6 %</b>
<b>1:00</b>	<b>261</b>	<b>7 %</b>
<b>2:00</b>	<b>301</b>	<b>8 %</b>
<b>3:00</b>	<b>284</b>	<b>7 %</b>
<b>4:00</b>	<b>256</b>	<b>6 %</b>
<b>5:00</b>	<b>287</b>	<b>7 %</b>
<b>6:00</b>	<b>204</b>	<b>5 %</b>
<b>7:00</b>	<b>162</b>	<b>4 %</b>
<b>8:00</b>	<b>117</b>	<b>3 %</b>
<b>9:00</b>	<b>95</b>	<b>2 %</b>
<b>10:00</b>	<b>74</b>	<b>2 %</b>
<b>11:00</b>	<b>36</b>	<b>1 %</b>
	<b>4,000</b>	

**TRAFFIC COUNT SUMMARY - 15 MINUTE TOTALS**

**CITY : INDIO  
STREET NAME: MILES AVE  
LOCATION : W/O DUNES PALM RD**

**DATE: 22-AUG 1989  
DAY : TUESDAY  
TYPE: TOTALS**

<b>TOTAL</b>	<b>AM</b>	<b>PM</b>	<b>TOTAL</b>
10	<u>1200-1215</u>		62
5	<u>1215-1230</u>		59
4	<u>1230-1245</u>		49
5	<u>1245-0100</u>		58
6	<u>0100-0115</u>		76
4	<u>0115-0130</u>		75
5	<u>0130-0145</u>		51
1	<u>0145-0200</u>		59
3	<u>0200-0215</u>		64
5	<u>0215-0230</u>		72
9	<u>0230-0245</u>		78
2	<u>0245-0300</u>		87
4	<u>0300-0315</u>		69
3	<u>0315-0330</u>		70
1	<u>0330-0345</u>		68
0	<u>0345-0400</u>		77
1	<u>0400-0415</u>		59
1	<u>0415-0430</u>		55
3	<u>0430-0445</u>		68
10	<u>0445-0500</u>		74
14	<u>0500-0515</u>		55
11	<u>0515-0530</u>		77
20	<u>0530-0545</u>		80
33	<u>0545-0600</u>		75
56	<u>0600-0615</u>		62
38	<u>0615-0630</u>		43
35	<u>0630-0645</u>		51
56	<u>0645-0700</u>		48
57	<u>0700-0715</u>		43
46	<u>0715-0730</u>		42
67	<u>0730-0745</u>		39
94	<u>0745-0800</u>		38
97	<u>0800-0815</u>		23
57	<u>0815-0830</u>		45
71	<u>0830-0845</u>		23
68	<u>0845-0900</u>		26
67	<u>0900-0915</u>		24
60	<u>0915-0930</u>		27
57	<u>0930-0945</u>		19
69	<u>0945-1000</u>		25
71	<u>1000-1015</u>		18
60	<u>1015-1030</u>		21
54	<u>1030-1045</u>		19
77	<u>1045-1100</u>		16
61	<u>1100-1115</u>		18
75	<u>1115-1130</u>		6
66	<u>1130-1145</u>		7
76	<u>1145-1200</u>		5

**1,695**

**2,305**

**TOTAL VOLUME: 4,000**

# **TRAFFIC COUNT SUMMARY - PEAK PERCENTAGES**

**CITY : INDO**  
**STREET NAME: MILES AVE**  
**LOCATION : W/O DUNES PALM RD**

**DATE: 22 AUG 1989**  
**DAY : TUESDAY**  
**TYPE: TOTALS**

<b>PEAK HOUR</b>	<b>TIME</b>	<b>COUNT</b>	<b>% OF TOTAL</b>
<b>TOTAL ALL DIRECTIONS</b>			
AM	7:45 TO 8:45	319	8 %
MID-DAY	10:45 TO 11:45	279	7 %
PM	2:15 TO 3:15	306	8 %

## **HIGHEST PEAK HOUR IN 24 HOUR PERIOD**

<b>AM</b>	<b>7:45 TO 8:45</b>	<b>319</b>	<b>8 %</b>
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## **TIME TABLE**

<b>AM</b>	<b>- 6:00 AM TO 10:00 AM</b>
<b>MID-DAY</b>	<b>- 10:00 AM TO 2:00 PM</b>
<b>PM</b>	<b>- 2:00 PM TO 6:00 PM</b>

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDO  
 NORTH-SOUTH STREET : DUNES PALMS RD.  
 EAST-WEST STREET : WESTWARD RD.  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

## PEAK HOUR REPORT

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT
500 PM	1	9	0	0	8	2	0	0	0	6	0	2
515	1	10	0	0	11	3	0	0	0	4	0	4
530	0	9	0	0	9	2	0	0	0	3	0	2
545	1	7	0	0	7	1	0	0	0	4	0	2
TOTAL	3	35	0	0	35	8	0	0	0	17	0	10

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
 NORTH-SOUTH STREET : CLINTON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
7:15 AM	5	30	9	6	24	8	9	10	13	8	21	5
7:30	4	32	18	12	29	10	12	17	8	16	32	7
7:45	5	36	15	11	35	7	5	26	15	6	29	7
8:00	7	41	16	15	31	9	6	29	14	7	36	7
<b>TOTAL</b>	<b>21</b>	<b>159</b>	<b>50</b>	<b>44</b>	<b>119</b>	<b>34</b>	<b>32</b>	<b>91</b>	<b>50</b>	<b>31</b>	<b>158</b>	<b>25</b>
8:15 AM	6	42	14	5	27	9	7	17	14	7	33	7
8:30	7	36	12	15	39	6	10	16	9	9	30	7
8:45	4	39	7	13	32	5	6	26	5	6	31	7
9:00	5	43	9	15	36	8	14	23	6	4	38	7
<b>TOTAL</b>	<b>22</b>	<b>160</b>	<b>42</b>	<b>48</b>	<b>134</b>	<b>28</b>	<b>37</b>	<b>80</b>	<b>34</b>	<b>26</b>	<b>128</b>	<b>25</b>
4:15 PM	9	46	12	19	49	14	16	40	10	8	39	9
4:30	3	42	10	8	51	6	36	25	8	4	22	7
4:45	9	48	16	21	60	3	29	37	17	14	35	9
5:00	6	35	11	15	26	12	12	20	3	5	30	2
<b>TOTAL</b>	<b>27</b>	<b>171</b>	<b>49</b>	<b>63</b>	<b>186</b>	<b>35</b>	<b>93</b>	<b>134</b>	<b>38</b>	<b>31</b>	<b>126</b>	<b>37</b>
5:15 PM	5	43	9	17	32	8	20	35	8	7	25	10
5:30	7	45	11	19	35	9	11	29	15	15	36	11
5:45	9	43	10	15	30	11	19	18	11	10	22	6
6:00	6	39	8	13	42	6	15	20	9	11	27	9
<b>TOTAL</b>	<b>27</b>	<b>170</b>	<b>38</b>	<b>64</b>	<b>139</b>	<b>34</b>	<b>65</b>	<b>98</b>	<b>43</b>	<b>43</b>	<b>112</b>	<b>36</b>
<b>GR TOT</b>	<b>97</b>	<b>640</b>	<b>179</b>	<b>219</b>	<b>578</b>	<b>131</b>	<b>227</b>	<b>373</b>	<b>165</b>	<b>131</b>	<b>484</b>	<b>107</b>

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIANAPOLIS  
 NORTH-SOUTH STREET : CLINTON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

## PEAK HOUR REPORT

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT THRU	LEFT		RIGHT THRU	LEFT		RIGHT THRU	LEFT		RIGHT THRU	LEFT	
7:45 AM	5	36	15	11	35	7	9	26	16	6	29	5
8:00	7	41	16	15	31	9	10	29	14	7	36	9
8:15	6	42	14	5	27	9	7	17	14	7	30	7
8:30	7	36	12	15	39	6	10	16	9	9	29	6
TOTAL	25	155	57	46	132	31	28	87	52	29	124	26

**TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT**

CITY : INDIO  
 NORTH-SOUTH STREET : CLINTON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

**PEAK HOUR REPORT**

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
4:15 PM	9	46	12	19	49	14	16	32	10	8	39	9
4:30	3	42	10	8	51	6	36	25	8	4	22	7
4:45	9	48	16	21	60	3	29	37	17	14	35	9
5:00	6	35	11	15	26	12	12	20	3	5	30	8
TOTAL	27	171	49	63	186	35	93	114	38	31	126	33

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDO  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : 46TH AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

TIME	NORTH			SOUTH			EAST			WEST		
	RIGHT THRU	THRU LEFT	BOUND									
7:15 AM	2	21	3	2	3	2	2	11	1	1	1	1
7:30	1	20	5	1	2	1	3	10	2	2	2	2
7:45	2	18	7	3	6	2	2	21	1	1	1	1
8:00	3	19	8	2	8	2	1	12	1	2	2	3
TOTAL	8	78	23	8	19	7	8	54	5	6	6	6
8:15 AM	2	21	9	2	11	3	1	11	2	2	17	0
8:30	1	17	6	2	12	5	0	10	2	1	15	1
8:45	0	19	5	1	10	4	1	9	3	1	18	1
9:00	1	13	4	2	9	6	1	8	2	4	9	0
TOTAL	4	70	24	7	42	18	3	38	9	5	55	0
4:15 PM	5	11	19	2	5	5	3	11	2	3	14	2
4:30	6	16	16	1	6	4	2	15	1	2	13	2
4:45	8	14	18	2	4	3	4	14	2	1	11	1
5:00	11	15	15	2	3	4	5	16	2	1	14	2
TOTAL	30	56	68	7	18	16	14	56	7	7	52	6
5:15 PM	14	11	16	2	4	4	3	29	4	2	21	2
5:30	11	10	14	1	3	3	2	32	3	3	19	2
5:45	14	8	11	2	2	2	4	30	2	1	16	1
6:00	16	7	12	2	3	1	3	23	3	2	14	1
TOTAL	55	36	53	7	12	10	12	114	12	8	70	6
GR TOT	97	240	168	29	91	51	37	262	33	26	244	23

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : 46TH AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

## PEAK HOUR REPORT

	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
TIME	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT
7:45 AM	2	18	7	3	6	2	2	21	1	1	16	4
8:00	3	19	8	2	8	2	1	12	1	2	18	3
8:15	2	21	9	2	11	3	1	11	2	2	17	8
8:30	1	17	6	2	12	5	0	10	2	1	15	1
TOTAL	8	75	30	9	37	12	4	54	6	6	66	4

**TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT**

CITY : INDIO  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : 46TH AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

**PEAK HOUR REPORT**

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT
500 PM	11	15	15	2	3	4	5	16	2	1	14	2
515	14	11	16	2	4	4	3	29	4	2	21	2
530	11	10	14	1	3	3	2	32	3	3	19	2
545	14	8	11	2	2	2	4	30	2	1	16	1
<b>TOTAL</b>	<b>50</b>	<b>44</b>	<b>56</b>	<b>7</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>107</b>	<b>11</b>	<b>7</b>	<b>70</b>	<b>7</b>

## TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDO  
 NORTH-SOUTH STREET : JEFFERSON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
7:15 AM	4	21	3	2	35	1	2	20	6	4	38	6
7:30	5	20	3	2	38	2	1	32	4	4	48	1
7:45	4	19	6	4	46	3	3	43	5	5	50	2
8:00	3	20	3	2	55	1	2	53	4	6	46	2
TOTAL	36	89	15	10	174	7	8	148	19	13	187	9
8:15 AM	5	32	5	2	50	2	3	525	4	3	45	2
8:30	6	34	3	1	42	2	2	51	3	4	50	1
8:45	5	26	4	2	59	3	3	48	4	3	52	2
9:00	4	21	2	1	51	2	1	42	2	5	51	2
TOTAL	20	113	14	6	202	9	9	666	13	16	198	9
4:15 PM	2	36	2	1	41	2	2	53	3	6	58	2
4:30	1	45	3	2	42	3	3	60	3	5	57	2
4:45	2	31	1	1	46	1	2	64	4	6	52	3
5:00	2	38	2	2	43	2	2	52	5	3	48	2
TOTAL	7	150	8	6	172	8	9	229	15	20	215	10
5:15 PM	2	37	2	1	49	1	2	57	5	3	45	2
5:30	1	41	1	1	53	2	3	58	4	2	48	2
5:45	2	38	1	2	54	2	2	52	3	4	57	3
6:00	3	34	1	1	56	1	1	49	3	5	51	2
TOTAL	8	150	5	5	212	6	8	216	15	14	161	9
GR TOT	51	502	42	27	760	30	34	1259	62	67	756	33

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
 NORTH-SOUTH STREET : JEFFERSON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

## PEAK HOUR REPORT

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT THRU	LEFT		RIGHT THRU	LEFT		RIGHT THRU	LEFT		RIGHT THRU	LEFT	
800 AM	3	29	3	?	55	1	2	53	4	6	46	2
815	5	32	5	?	50	2	3	525	4	3	45	2
830	6	34	3	1	42	2	2	51	3	4	50	3
845	5	26	4	2	59	3	3	48	4	3	52	2
TOTAL	19	121	15	7	206	8	10	677	15	16	193	9

TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
NORTH-SOUTH STREET : JEFFERSON ST  
EAST-WEST STREET : MILES AVE  
TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
DAY : WEDNESDAY

PEAK HOUR REPORT

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
4:15 PM	2	36	2	1	41	2	2	53	3	6	58	3
4:30	1	45	3	2	42	3	3	60	3	5	57	2
4:45	2	31	1	1	46	1	2	64	4	6	52	3
5:00	2	38	2	2	43	2	2	52	5	3	48	2
TOTAL	7	150	8	6	172	8	9	229	15	20	215	10

## TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
 NORTH-SOUTH STREET : DUNES PALMS RD  
 EAST-WEST STREET : WESTWARD HO  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT
7:15 AM	1	4	0	0	5	1	0	0	0	0	0	0
7:30	0	3	0	0	7	1	0	0	0	4	0	2
7:45	0	3	0	0	9	2	0	0	0	5	0	1
8:00	1	3	0	0	11	1	0	0	0	6	0	2
TOTAL	2	13	0	0	32	5	0	0	0	15	0	5
8:15 AM	1	5	0	0	12	2	0	0	0	4	0	1
8:30	0	3	0	0	10	2	0	0	0	1	0	0
8:45	0	2	0	0	8	1	0	0	0	1	0	0
9:00	1	3	0	0	5	2	0	0	0	5	0	2
TOTAL	2	13	0	0	35	7	0	0	0	11	0	3
4:15 PM	1	8	0	0	4	1	0	0	0	1	0	1
4:30	1	7	0	0	7	2	0	0	6	2	0	1
4:45	0	8	0	0	6	1	0	0	0	1	0	1
5:00	1	9	0	0	8	2	0	0	0	6	0	2
TOTAL	3	32	0	0	25	6	0	0	0	10	0	5
5:15 PM	1	10	0	0	11	3	0	0	0	4	0	4
5:30	0	9	0	0	9	2	0	0	0	3	0	2
5:45	1	7	0	0	7	1	0	0	0	4	0	2
6:00	1	5	0	0	3	2	0	0	0	4	0	1
TOTAL	3	31	0	0	30	8	0	0	0	15	0	9
GR TOT	10	89	0	0	122	26	0	0	0	51	0	22

# TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDO  
 NORTH-SOUTH STREET : DUNES PALMS RD  
 EAST-WEST STREET : WESTWARD RD  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 30 AUG 1989  
 DAY : WEDNESDAY

## PEAK HOUR REPORT

	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
TIME	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT	RIGHT THRU	THRU	LEFT
7:30 AM	0	3	0	0	7	1	0	0	0	4	0	7
7:45	0	3	0	0	9	2	0	0	0	5	0	1
8:00	1	3	0	0	11	1	0	0	0	6	0	2
8:15	1	5	0	0	12	2	0	0	0	4	0	3
TOTAL	2	14	0	0	39	6	0	0	0	19	0	6

## TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIO  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 29 AUG 1989  
 DAY : TUESDAY

TIME	N O R T H			S O U T H			E A S T			W E S T		
	B O U N D			B O U N D			B O U N D			B O U N D		
	R I G H T	T H R U	L E F T	R I G H T	T H R U	L E F T	R I G H T	T H R U	L E F T	R I G H T	T H R U	L E F T
7:15 AM	4	1	19	0	0	0	14	11	1	1	37	1
7:30	8	1	15	0	0	0	16	20	0	3	49	2
7:45	3	0	10	0	0	0	11	38	1	6	48	1
8:00	6	1	14	0	0	0	16	41	0	4	54	2
TOTAL	21	3	58	0	0	0	57	110	2	14	188	6
8:15 AM	4	1	15	0	0	0	21	36	0	3	45	0
8:30	3	0	11	0	0	0	19	35	1	2	52	1
8:45	4	8	14	0	0	0	18	38	0	3	54	0
9:00	2	0	9	0	0	0	7	40	0	4	53	0
TOTAL	13	9	49	0	0	0	65	149	1	12	204	1
4:15 PM	3	0	6	0	0	0	10	38	1	4	60	4
4:30	4	1	5	0	0	0	8	62	2	3	62	6
4:45	3	0	4	0	0	0	6	74	1	4	64	4
5:00	2	0	3	0	0	0	16	49	1	6	51	8
TOTAL	12	1	18	0	0	0	40	233	5	16	237	22
5:15 PM	1	0	2	0	0	0	11	55	1	4	48	8
5:30	3	0	8	0	0	0	14	54	2	3	53	6
5:45	2	0	5	0	0	0	18	52	3	3	41	4
6:00	2	0	9	0	0	0	16	50	1	2	41	2
TOTAL	8	0	24	0	0	0	59	211	7	12	183	20
3 TOT	54	13	149	0	0	0	221	693	15	54	812	49

## TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDIANAPOLIS  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 29 AUG 1989  
 DAY : TUESDAY

## PEAK HOUR REPORT

TIME	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
800 AM	6	1	14	0	0	0	16	41	0	4	54	2
815	4	1	15	0	0	0	21	36	0	3	45	0
830	3	0	11	0	0	0	19	35	1	2	52	1
845	4	8	14	0	0	0	18	38	0	3	54	0
TOTAL	17	10	54	0	0	0	74	150	1	12	205	3

## TRAFFIC COUNT SUMMARY - 15 MINUTE COUNT

CITY : INDO  
 NORTH-SOUTH STREET : MADISON ST  
 EAST-WEST STREET : MILES AVE  
 TYPE : INTERSECTION TURNING MOVEMENTS

DATE : 29 AUG 1989  
 DAY : TUESDAY

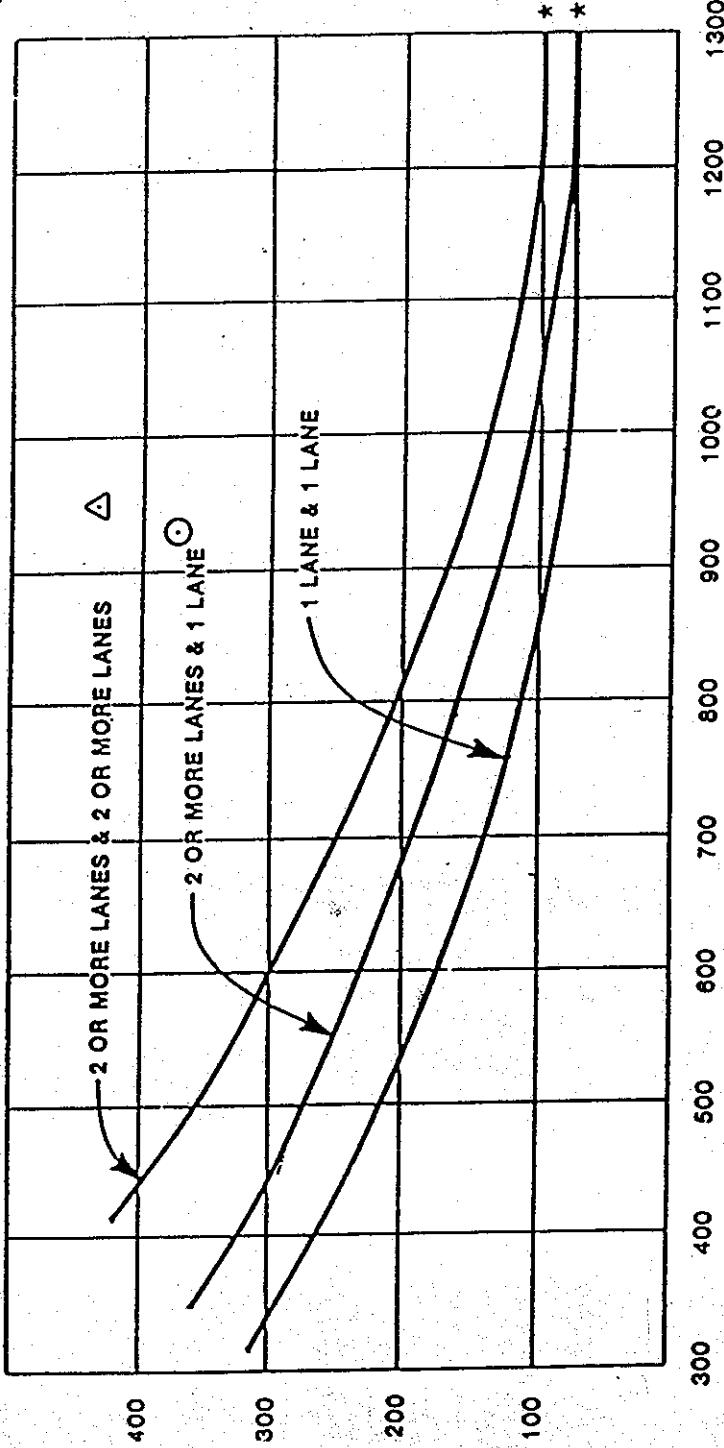
## PEAK HOUR REPORT

	NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
TIME	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
:30 PM	4	1	5	0	0	0	8	62	2	3	62	6
4:45	3	0	4	0	0	0	6	74	1	4	64	4
5:00	2	0	3	0	0	0	16	49	1	5	51	8
:15	1	0	2	0	0	0	11	55	1	4	48	8
TOTAL	10	1	14	0	0	0	41	240	5	16	225	26

**APPENDIX D**  
**PEAK HOUR SIGNAL WARRANT**

AM PEAK HOUR VOLUME WARRANT (RURAL AREAS)

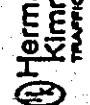
MILES AVENUE & JEFFERSON STREET



MAJOR STREET—TOTAL OF BOTH APPROACHES—VPH

\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

 Herman Kimmel and Associates  
TRAFFIC ENGINEERING CONSULTANTS

 KRB

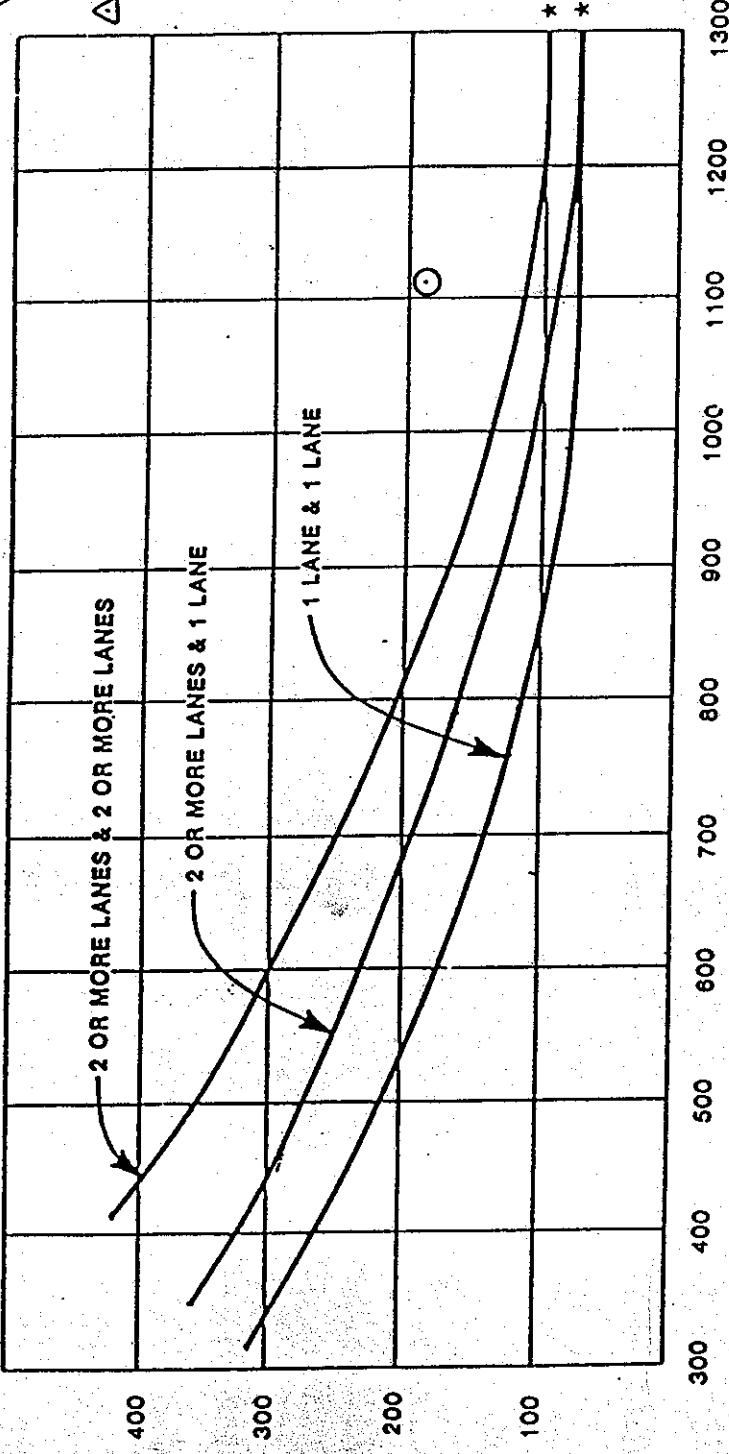
HIGH VOLUME APPROACH—VPH

MINOR STREET

JOB NO. 700484

AM PEAK HOUR VOLUME WARRANT (RURAL AREAS)

STATE HWY.111 & DUNE PALMS ROAD



MAJOR STREET—TOTAL OF BOTH APPROACHES—VPH

\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◎ — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

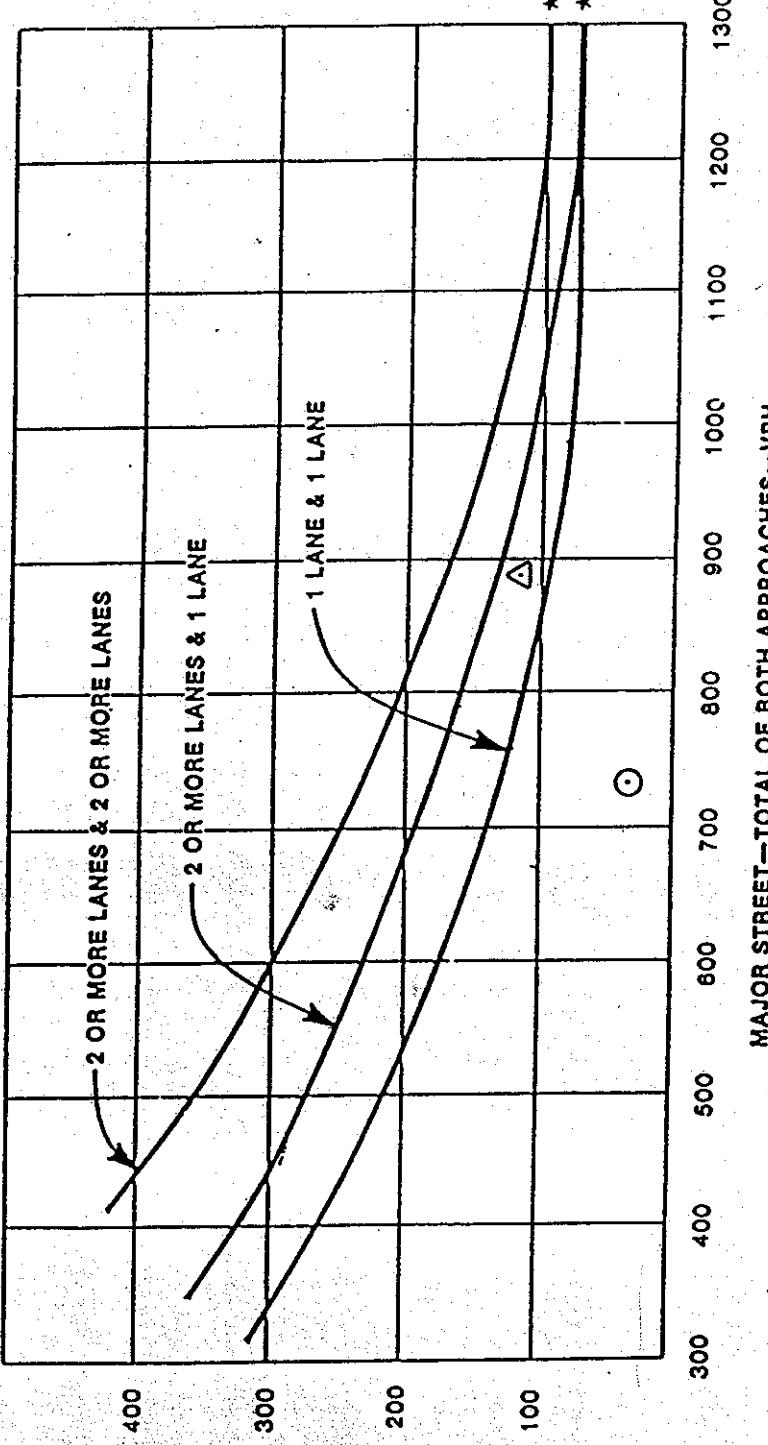
 Herman Kimmel and Associates  
Traffic Engineering Consultants

JOB NO. 700437

 TBB

**AM PEAK HOUR VOLUME WARRANT (RURAL AREAS)**

**MILES AVENUE & DUNE PALMS ROAD**



\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 76 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◎ — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

Herman  
Kimmel and Associates  
TRAFFIC ENGINEERING CONSULTANTS

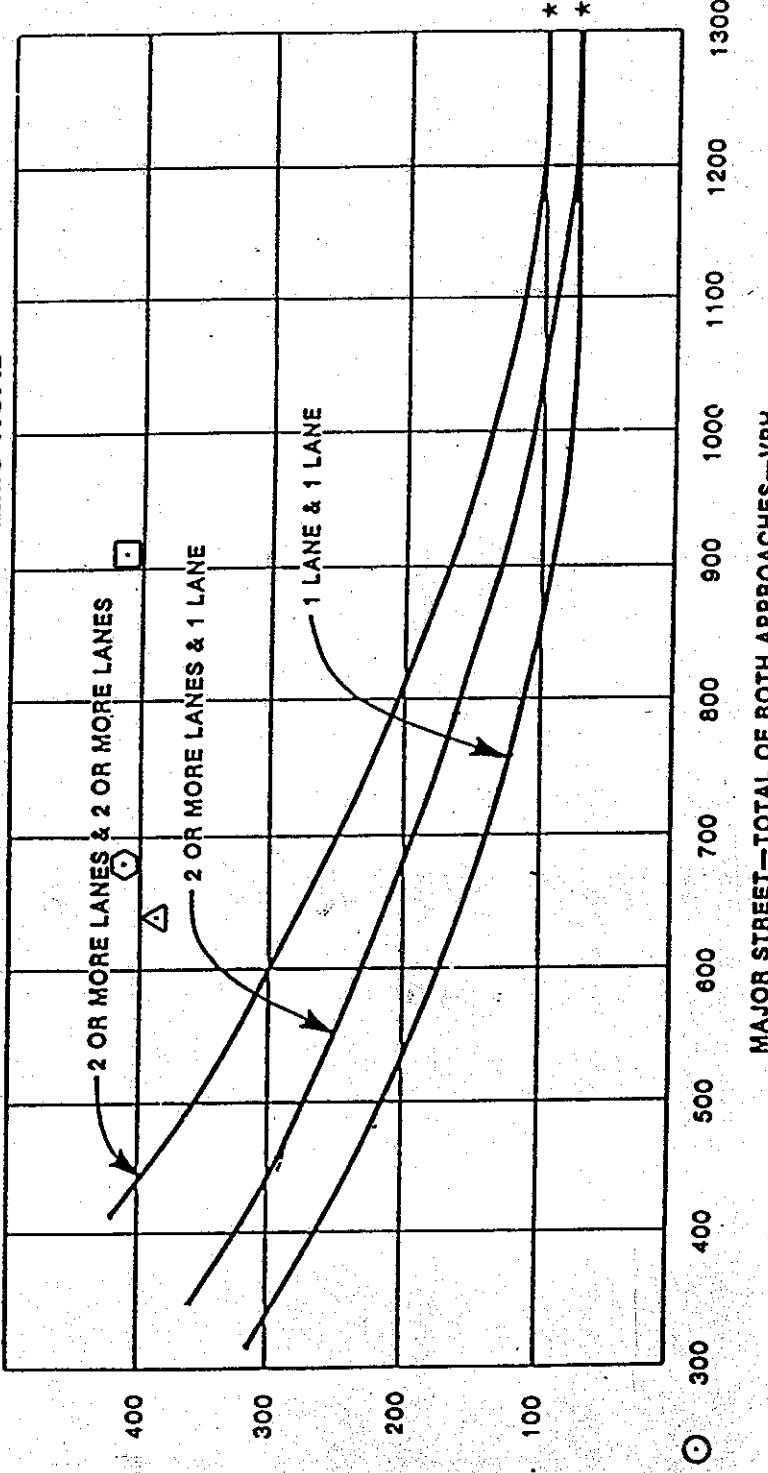
**RB**

MINOR STREET HIGH VOLUME APPROACH—VPH

JOB NO. 200484

AM PEAK HOUR VOLUME WARRANT (RURAL AREAS)

WESTWARD HO DRIVE & DUNE PALMS ROAD



\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

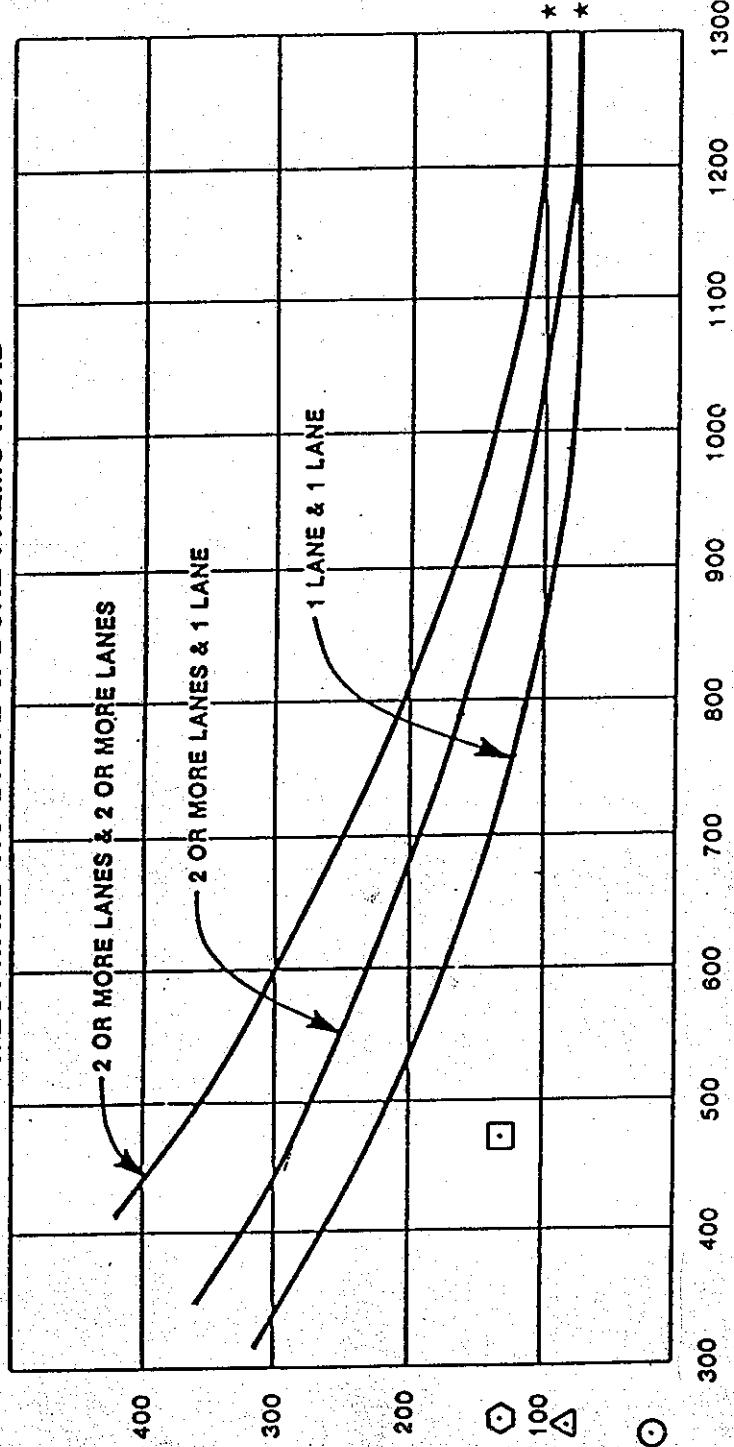
- - EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ - EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◊ - EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- - EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

Herman  
Kimmel and Associates  
Traffic Engineering Consultants

**JKB**

**PM PEAK HOUR VOLUME WARRANT (RURAL AREAS)**

**WESTWARD HO DRIVE & DUNE PALMS ROAD**



\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH  
WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME  
FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◎ — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

 Herman Kimmel and Associates  
TRAFFIC ENGINEERING CONSULTANTS

 TPB

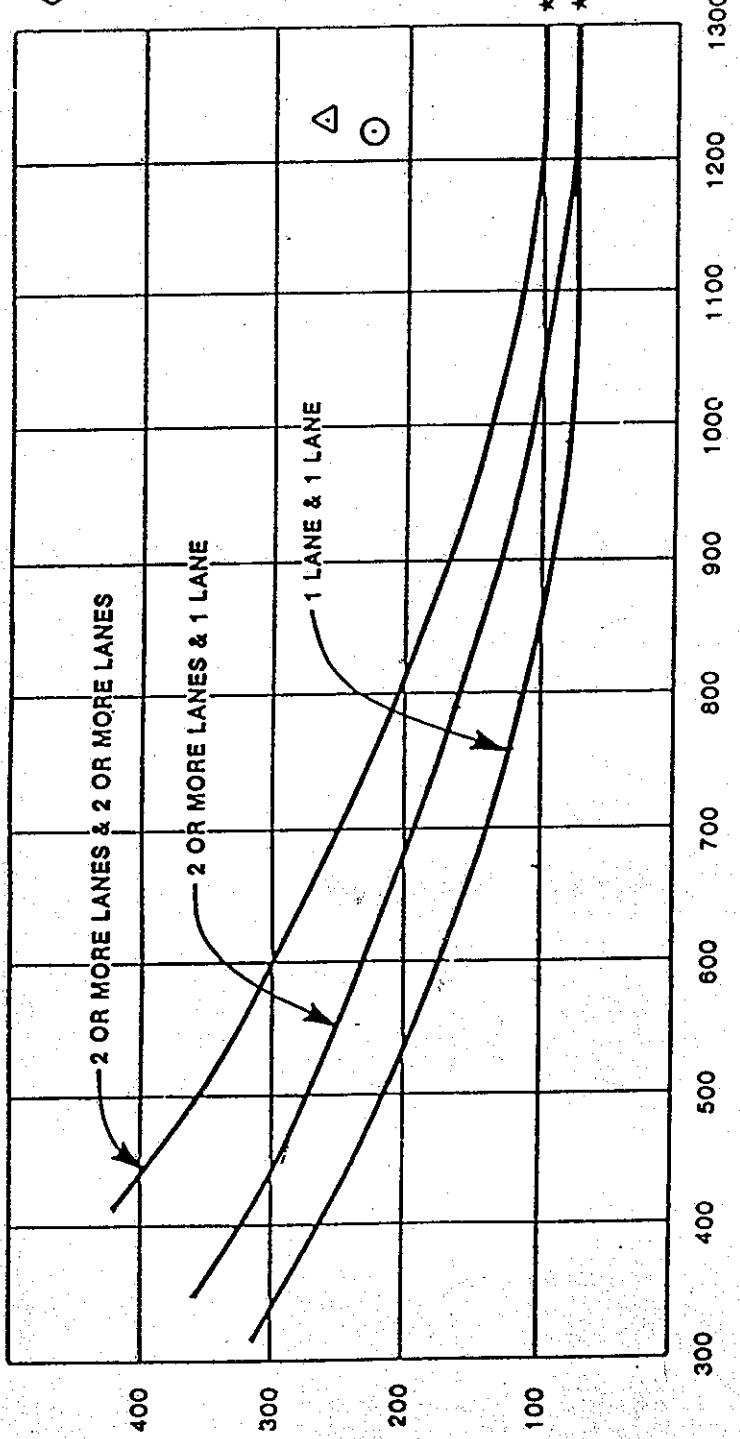
HIGH VOLUME APPROACH—VPH

MINOR STREET

JOB NO. 2004

**PM PEAK HOUR VOLUME WARRANT (RURAL AREAS)**

**STATE HWY.111 & DUNE PALMS ROAD**



\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◎ — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

Herman  
Kimmel and Associates  
TRAFFIC ENGINEERING CONSULTANTS

**TB**

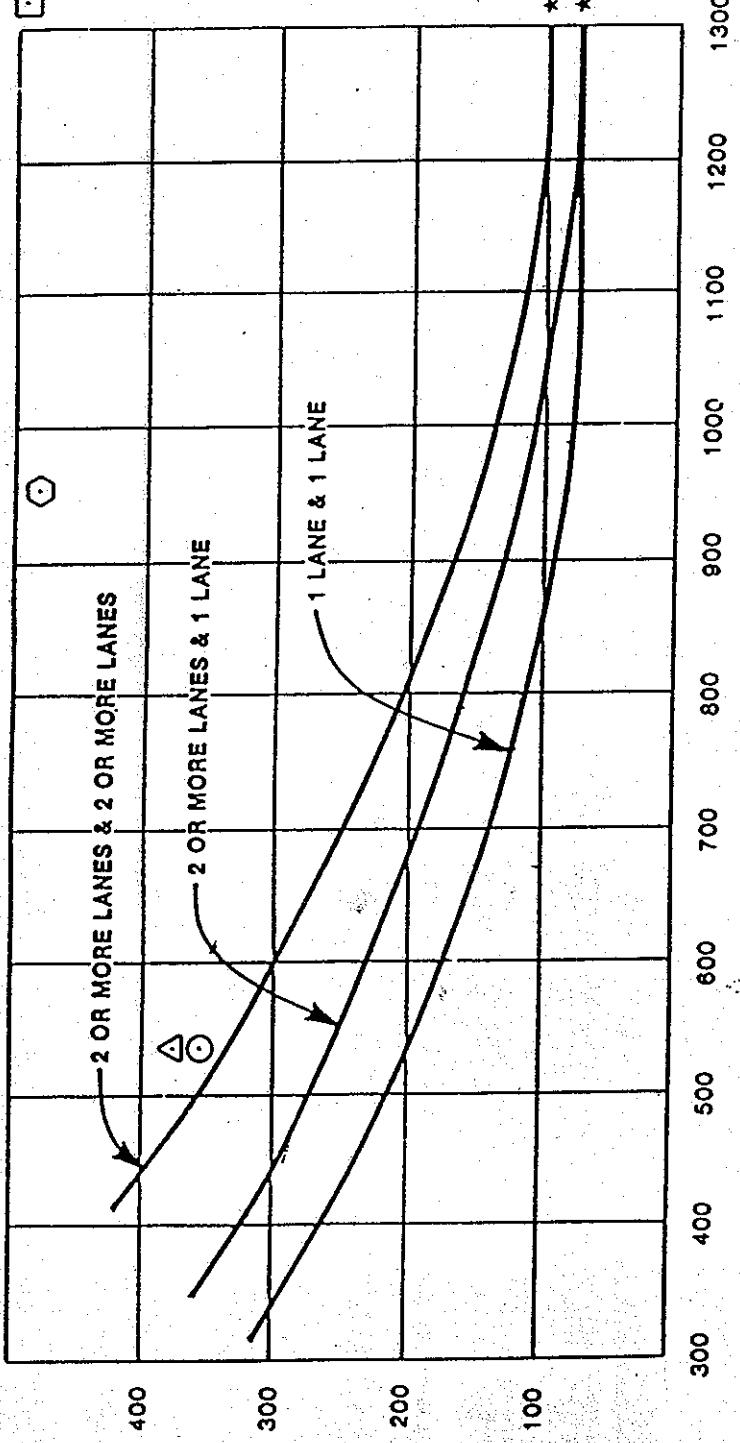
High Volume Approach—VPH

Minor Street

JOB NO. 20042

**PM PEAK HOUR VOLUME WARRANT (RURAL AREAS)**

**MILES AVENUE & JEFFERSON STREET**



**MAJOR STREET—TOTAL OF BOTH APPROACHES—VPH**

\* NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

- — EXISTING PEAK HOUR TRAFFIC VOLUMES
- △ — EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES
- ◎ — EXISTING + GROWTH + PROJECT PEAK HOUR TRAFFIC VOLUMES
- — EXISTING + GROWTH + PROJECT + ADJACENT PROJECTS PEAK HOUR TRAFFIC VOLUMES

**CRB**  
Herman  
Kimmel and Associates  
TRAFFIC ENGINEERING CONSULTANTS



JOB NO. 200404

HIGH VOLUME APPROACH—VPH

MINOR STREET

**Tommi Sanchez**

---

**Subject:** PCN 08058 Desert Sands Unified School District Expansion Traffic Impact Study  
**Due Date:** Monday, March 10, 2008

**Status:** Not Started  
**Percent Complete:** 0%

**Total Work:** 0 hours  
**Actual Work:** 0 hours

**Owner:** Rusty Beardsley

**NOTES:**

2/25/2008 - RECEIVED TRAFFIC IMPACT STUDY FROM RK ENGINEERING GROUP(2 COPIES) VIA FED EX. SENT TO RUSTY FOR FURTHER PROCESSING.



**800.334.5000**  
[ontrac.com](http://ontrac.com)

08058



Date Printed 3/13/2008

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LA QUINTA, CA 92253

*Sent By:* TOMMI SANCHEZ  
*Phone#:* (760)777-7077  
*wgt(lbs):* 2  
*Reference:* IW DRAFT EIR

*Ship To Company:*

**TRAFFEX ENGINEERS, INC.**  
**7156 WALLABY STREET**  
**VENTURA, CA 93003**  
**NAZIR LALANI (805)647-1725**

*Service:* **C**

*Sort Code:* **BUR**

*Special Services:*

**CITY OF LA QUINTA  
PUBLIC WORKS DEPARTMENT**

**TRANSMITTAL SHEET**

To: RK ENGINEERING

Fax:

Phone:

Item: Desert Sands Unified School District Expansion Traffic Impact Study

PCN: 08058

FROM:  
Rusty Beardsley, Traffic Engineer

DATE: MARCH 27, 2008

Number of Pages: (INCLUDING THIS PAGE)

**NOTICE:**

**NOTES:**

COMMENTS AND PLANS WILL BE SENT FED EX

IF YOU HAVE ANY QUESTIONS OR  
NEED FURTHER ASSISTANCE, PLEASE CALL  
RUSTY BEARDSLEY, TRAFFIC ENGINEER (760) 777-7056  
PUBLIC WORKS DEPARTMENT

**SIGNATURE REQUIRED FOR PICK UP**

**SIGNATURE:**

**PRINT NAME:**

**DATE OF PICK UP:**

**CITY PLAN CHECK COMMENTS:**

**NOTES:**

**2/25/2008 - RECEIVED TRAFFIC IMPACT STUDY FROM RK ENGINEERING GROUP(2 COPIES) VIA FED EX. SENT TO RUSTY FOR FURTHER PROCESSING.**

**3/5/2008 - Rusty reviewed traffic study with following comments:**

- 1) Southerly driveway access for site (desingated access A2 in study) should be analyzed as a study intersection.**
- 2) Dune Palms Rd. is proposed to have a median installed in along the frontage of this facility. Access A2 will have right in/out and left in access only. Lefts out of this driveway will be restricted. Study should assume that condition to exist.**
- 3) Build-out scenario should be addressed.**
- 4) Statements regarding improvement contributions (pages 8-1, 9-1 and 10-1) should be altered. The development should contribute their fair-share only towards mitigation of identified improvements to facilities that are not included in the City of La Quinta's Developer Impact Fee structure. The developer will also contribute to a Developer Impact Fee for improvements identified by that program.**

**Task sent to Angelica to forward comments to EOR 3/5/08 (RB)**

**3/13/2008 - SENT A COPY OF TRAFFIC IMPACT STUDY TO NAZIR VIA CALIFORNIA OVERNIGHT FOR REVIEW AND COMMENTS. (TS)**

**3/26/2008 - RECEIVED COMMENTS FROM NAZIR (THROUGH RUSTY). SENT TO RUSTY FOR FURTHER PROCESSING (AZ)**

**In addition to above comments dated 3/5/08, Nazir had the following comment:**

- This project will add significant volumes to the intersection of Hwy. 111 at Dune Palms. The intersection of Hwy. 111 at Dune Palms is anticipated not to operate at a satisfactory level of service until the Hwy. 111 widening project improvements are completed by the City. The DSUSD Expansion project should not open until those improvements are in place.**

**Task sent to Angelica to forward all comments to EOR 3/26/08 (RB)**

**3/27/2008 - SENT FAXED NOTICE TO RK ENGINEERING INFORMING THEM THAT PLAN CHECK ITEM WILL BE SENT OVERNIGHT (AZ)**

\*\*\*\*\*  
\*\*\* TX REPORT \*\*\*  
\*\*\*\*\*

TRANSMISSION OK

JOB NO. 1964  
DESTINATION ADDRESS 919494740902  
PSWD/SUBADDRESS  
DESTINATION ID  
ST. TIME 03/27 08:11  
USAGE T 00'30  
PGS. 2  
RESULT OK

FILE COPY  
 ORIGINAL

## CITY OF LA QUINTA PUBLIC WORKS DEPARTMENT

### TRANSMITTAL SHEET

To: RK ENGINEERING

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Item: Desert Sands Unified School District Expansion Traffic Impact Study

PCN: 08058

FROM:

Rusty Beardsley, Traffic Engineer

DATE: MARCH 27, 2008

Number of Pages: (INCLUDING THIS PAGE)

## NOTICE:

NOTES:

COMMENTS AND PLANS WILL BE SENT FED EX

IF YOU HAVE ANY QUESTIONS OR  
NEED FURTHER ASSISTANCE, PLEASE CALL  
RUSTY BEARDSLEY, TRAFFIC ENGINEER (760) 777-7056  
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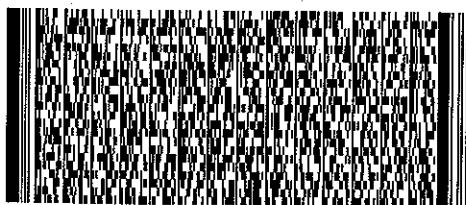
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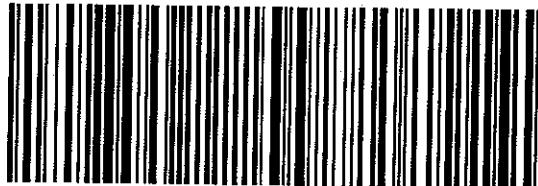
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