EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT SANTA BARBARA COUNTY, CALIFORNIA

TRAFFIC AND CIRCULATION STUDY

February 12, 2015 **ATE #13079**

Prepared For:

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TRAFFIC AND CIRCULATION STUDY FOR THE EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT, COUNTY OF SANTA BARBARA

Associated Transportation Engineers (ATE) has prepared the following traffic and circulation study for the East Cat Canyon Oil Field Redevelopment Project located southeast of the Orcutt area of Santa Barbara County. It is understood that the traffic study information will be used by the project team for the application process.

Associated Transportation Engineers

Scott A. Schell, AICP, PTP
Principal Transportation Planner

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INTRODUCTION

The following study contains an analysis of potential traffic and circulation impacts associated with the East Cat Canyon Oil Field Redevelopment Project (the "Project"). The report provides information relative to existing and future traffic conditions within the Project study-area adjacent to the Project site. The study evaluates the potential traffic impacts associated with the Project under existing and future conditions using County of Santa Barbara impact criteria. While the Project will be implemented in two phases (Phase I and II), the study evaluates the peak maximum number of trips, which will occur during Phase II. The study also contains an analysis of the Project's potential impacts to the Congestion Management Program facilities in the project vicinity.

PROJECT DESCRIPTION

The Project site is located within East Cat Canyon approximately 10 miles southeast of the Santa Maria-Orcutt area in northern Santa Barbara County. Figure 1 shows the approximate location of the Project site. The main property entrance is located at 6516 Cat Canyon Road. The Project involves the re-establishment of oil production in an existing oil field by drilling and operating oil/gas production wells, steam injection wells, observation wells, Sisquoc water production wells, Sisquoc water injection wells, and fresh water wells. In addition, there will be a steam generation site, a production group station, a central processing plant, gathering and distribution pipelines, and related ancillary equipment. The Project will be implemented in phases to maximize efficiency, allow for optimization, and help level peak construction activity. Surface facility construction will occur in two phases (Phase I and Phase II). Well drilling and completion and well related infrastructure will occur over a multiyear program. Operations will commence with the first steam injection, beginning in "Year 0". The well drilling program will occur from "Year -1" through "Year 19".

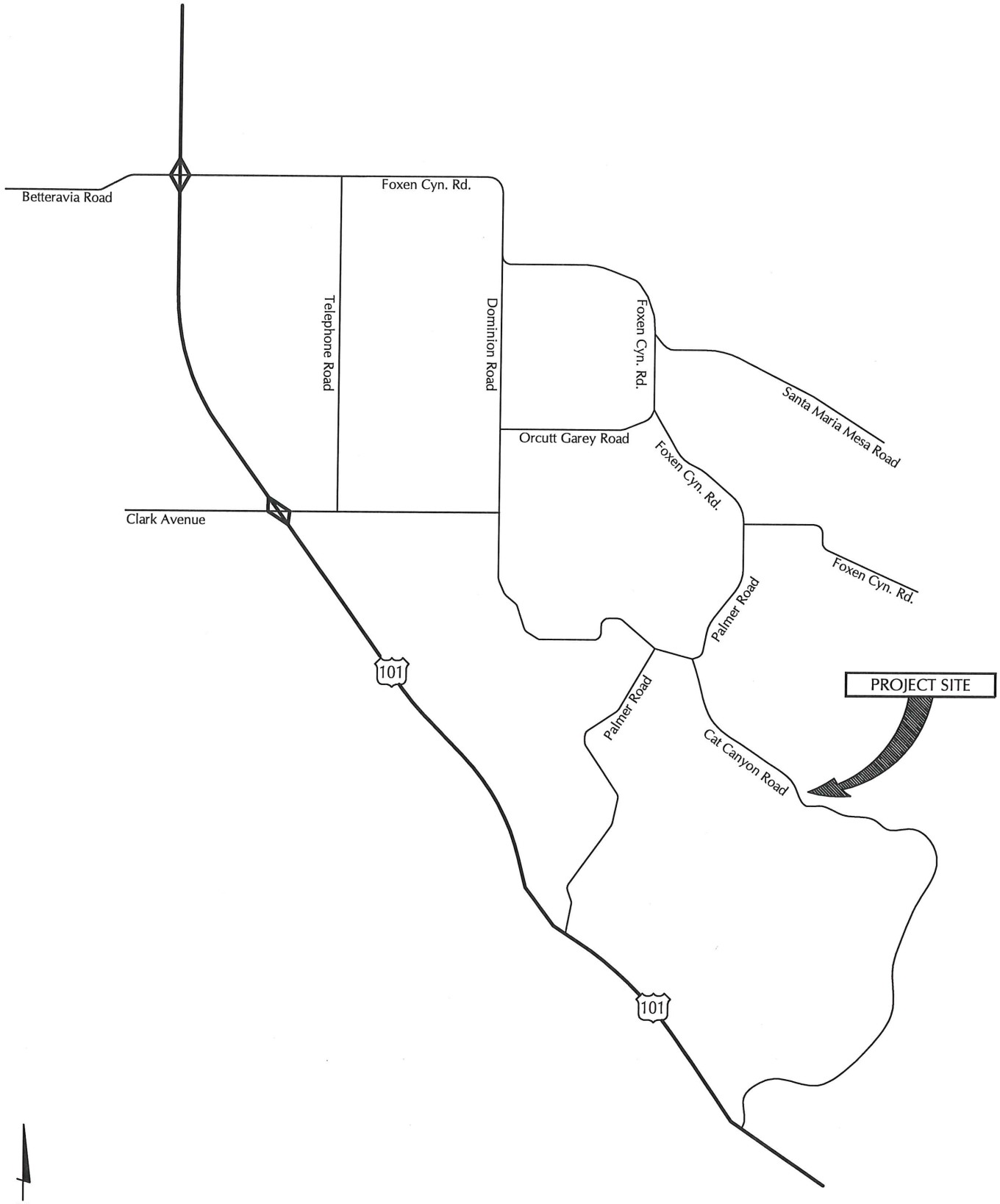
TRAFFIC STUDY METHODOLOGIES

The following section reviews the key elements of the methodologies used in the traffic and circulation study.

Traffic Scenarios

The traffic study assesses potential impacts generated by six Project options. Each option generates the same level of traffic; however, the six options assess impacts assuming four different routing of trucks hauling light crude oil and produced crude oil on the roadway network in the Project study area. Existing, Existing + Project, Cumulative and Cumulative + Project analyses are provided for each Project option.

For purposes of this study, the evaluation includes the maximum number of trips at the peak of the project, which will occur in Phase II.



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PROJECT SITE LOCATION/EXISTING STREET NETWORK

FIGURE 1

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Existing Conditions

Existing conditions are assessed for the Project study-area roadway system using traffic counts collected in January 2014 for this study (count data is contained in the Technical Appendix for reference). The traffic data collection effort and subsequent analyses include Average Daily Traffic (ADT) volumes for Project study-area roadways as well as A.M. and P.M. peak hour turning movements for the Project study-area intersections. The ADT volumes represent traffic that travels on a specific roadway segment over an average 24-hour weekday period. Traffic flow is most constrained at intersections; therefore, the more detailed traffic analysis examines operating conditions at key intersections during peak commuter travel periods. Intersection turning movement counts were collected from 7:00 to 9:00 A.M. during the morning commuter period and from 4:00 to 6:00 P.M. during the evening commuter period. The one-hour periods containing the highest volumes of traffic are considered the A.M. and P.M. peak hours.

Cumulative Conditions

Cumulative traffic volumes were forecast using a list of approved and pending projects provided by the County of Santa Barbara (County) (the list is included in the Technical Appendix along with a map showing the location of each project). Most of the cumulative projects that are located east of the U.S. 101 corridor are oil/gas projects, which generate relatively low traffic volumes. There are also a few lot splits and other minor projects east of the U.S. 101 corridor that would generate minor traffic increases. As a conservative assumption, the cumulative traffic volumes for the Project study-area roadways and intersections east of U.S. 101 were forecast by assuming a ½ percent per year growth factor for a period of 20 years (10% total traffic increase). The cumulative list also includes several commercial and housing developments west of the U.S. 101 corridor in the Orcutt community and Santa Maria area, which would add traffic to the U.S. 101/Clark Avenue interchange and the U.S. 101/Betteravia Road interchange. The cumulative traffic volumes for these interchanges were therefore forecast using the Orcutt-Santa Maria Traffic Model (a computerized model that forecasts traffic volumes assuming approved and pending development projects in the Orcutt-Santa Maria region). It is noted that the cumulative modeling assumes completion of the U.S. 101/Union Valley Parkway interchange, which was recently opened. This new interchange, which is located one mile north of the U.S. 101/Clark Avenue interchange, will divert some of the existing and cumulative traffic volumes away from the U.S. 101/Clark Avenue interchange.

Level of Service Definitions and Standards

Levels of Service (LOS) A through F are used to rate traffic operations, with LOS A indicating free flow operations and LOS F indicating congested operations. More detailed descriptions are included in the Technical Appendix. The County considers LOS C as the minimum acceptable operating standard for the roadways and intersections within the Project study-area.

Level of Service Calculation Methods

Existing and future operations were analyzed for the Project study-area roadways based on standard engineering roadway design capacities (roadway capacities are summarized in the Technical Appendix).

Levels of service for the Project study-area intersections that are controlled by stop signs were analyzed using the operations methods contained in the Highway Capacity Manual.[1] For intersections controlled by traffic signals, levels of service were analyzed using the Intersection Capacity Utilization (ICU) method. Both methods have been adopted by the County for traffic impact studies. Since levels of service for Stop-sign controlled intersections are based on the average delay per vehicle, delay data was collected at each of the Project study-area intersections for the stop sign level of service analyses. Level of service calculation worksheets are contained in the Technical Appendix for reference.

THRESHOLDS OF SIGNIFICANCE

The County's thresholds of significance for traffic impacts were used to assess the project's potential to generate project-specific and/or cumulative traffic impacts. The County's thresholds are listed below.

A. An impact is considered significant if the addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the following values:

Intersection Level of Service (Including Project)	Increase in V/C or Trips Greater Than
LOS A	0.20
LOS B	0.15
LOS C	0.10
LOS D	15 Trips
LOS E	10 Trips
LOS F	5 Trips

B. The project's access to a major road or arterial road would require access that would create an unsafe situation, a new traffic signal or major revisions to an existing traffic signal.

C. The project adds traffic to a roadway that has design features (e.g., narrow width, road-side ditches, sharp curves, poor sight distance, inadequate pavement structure) that would become a potential safety problem with the addition of project traffic.

D. Project traffic would utilize a substantial portion of an intersection=s capacity where the intersection is currently operating at an acceptable level of service (LOS A - LOS C) but with cumulative traffic would degrade, or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85, a change of 0.02 for intersections which would operate from 0.86 to 0.90, and a change of 0.01 for intersections operating at anything lower.

The County has developed the administrative policy of defining a significant roadway impact if a project would increase traffic volumes by more than 1.0% on roadways that currently exceed the Acceptable Capacity or are forecast to exceed the Acceptable Capacity under cumulative conditions.

[1] Highway Capacity Manual, Transportation Research Board, 2010.

PROJECT IMPACTS – OPTION 1A

As noted, this traffic study assesses potential impacts for six Project options. Each option generates the same level of traffic; however, the impact analyses assume four different routing of trucks hauling light crude oil and produced crude oil. Figure 4 shows the travel route for tanker trucks under Option 1A.

Existing Street Network

The street network that serves Project Option 1A includes highways, arterial streets and collector streets, as illustrated in Figure 1. The following text provides a brief discussion of the major components of the Project study-area street network for Option 1A (see Trip Distribution – Option 1A for further discussion).

U.S. 101, located west of the Project site, is a north-south freeway that provides regional access to the Santa Maria-Orcutt area. U.S. 101 contains 2 lanes in each direction on the segments north and south of Clark Avenue. The U.S. 101/Clark Avenue interchange provides regional access to the Project site.

Clark Avenue is a 2-lane arterial that extends between Dominion Road on the east and U.S. 101 on the west. This segment serves agricultural and residential uses. Clark Avenue also extends west of U.S. 101, traversing the Orcutt community.

Dominion Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and Palmer Road on the south. This segment mostly serves oil facilities and ranch lands.

Palmer Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and U.S. 101 on the south. There is a short segment of Palmer Road that connects Dominion Road and Cat Canyon Road. This segment mostly serves oil facilities and ranch lands.

Cat Canyon Road is a 2-lane collector road that extends between Palmer Road on the north and U.S. 101 on the south. This segment mostly serves oil facilities and ranch lands. Cat Canyon Road provides direct access to the Project site via the existing Long Canyon Road intersection.

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OPTION 1A TRUCK ROUTE

FIGURE 2

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Existing Roadway Operations

Figure 3 presents the Existing ADT volumes for the key roadway segments that serve Option 1A. Table 1 shows the existing ADT volumes and levels of service for the key roadways.

Table 1
Existing Roadway Operations – Option 1A

Roadway Segment	Classification	ADT Volume	LOS
Clark Avenue e/o U.S. 101	2-Lane Arterial	5,180	LOS A
Clark Avenue e/o Telephone Road	2-Lane Arterial	3,000	LOS A
Dominion Road s/o Clark Avenue	2-Lane Collector	1,050	LOS A
Cat Canyon Road s/o Palmer Road	2-Lane Collector	850	LOS A

As shown in Table 1, the Project study-area roadways currently operate at LOS A, which indicates very good operations. The existing roadway operations meet the County's LOS C standard.

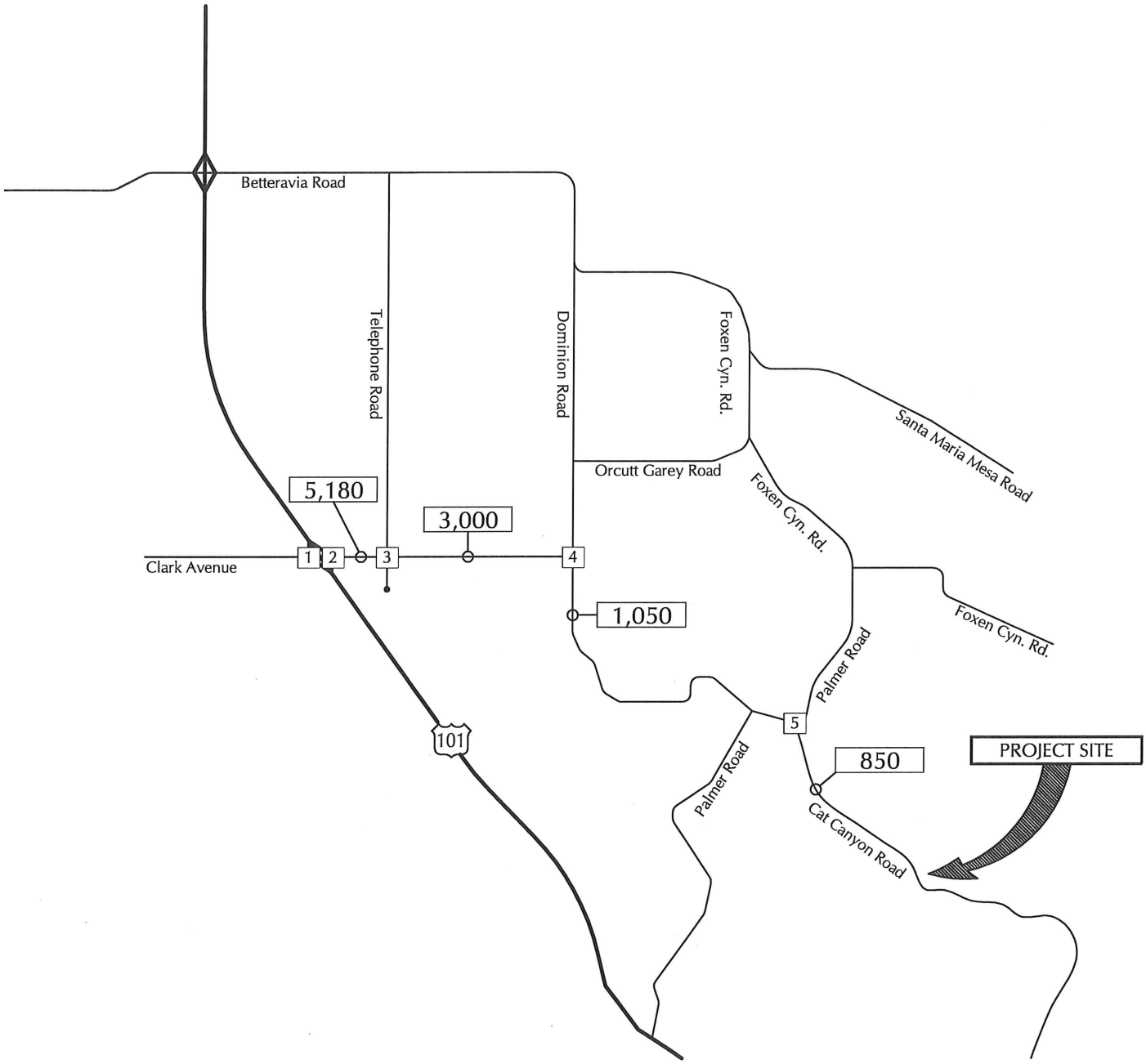
Existing Intersection Operations

Figure 3 shows the Existing A.M. and P.M. peak hour traffic volumes for the key intersections identified for analysis for Option 1A. Figure 4 shows the lane geometries and traffic controls for the key intersections. As shown in Table 2, all of the Project study-area intersections for Option 1A operate at LOS A during the A.M. and P.M. peak periods, which indicates very good operations and meets the County's LOS C standard.

Table 2
Existing Intersection Operations – Option 1A

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay	LOS	Delay	LOS
U.S. 101 SB Ramps/Clark Avenue	Stop Sign	9.7 Sec.	LOS A	8.8 Sec.	LOS A
U.S. 101 NB Ramps/Clark Avenue	Stop Sign	8.5 Sec.	LOS A	9.1 Sec.	LOS A
Telephone Road/Clark Avenue	Stop Sign	8.9 Sec.	LOS A	9.8 Sec.	LOS A
Dominion Road/Clark Avenue	Stop Sign	8.5 Sec.	LOS A	8.1 Sec.	LOS A
Palmer Road/Cat Canyon Road	Stop Sign	8.6 Sec.	LOS A	8.8 Sec.	LOS A

LOS based on average delay per vehicle in seconds pursuant to HCM procedures.



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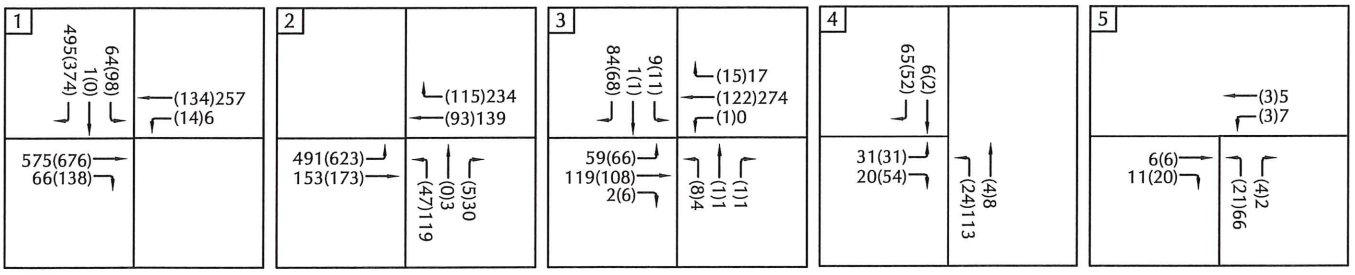
LEGEND

X - Average Daily Traffic Volume

└(XX)XX - (A.M.)P.M. Peak Hour Volume



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EXISTING TRAFFIC VOLUMES - OPTION 1A

FIGURE 3

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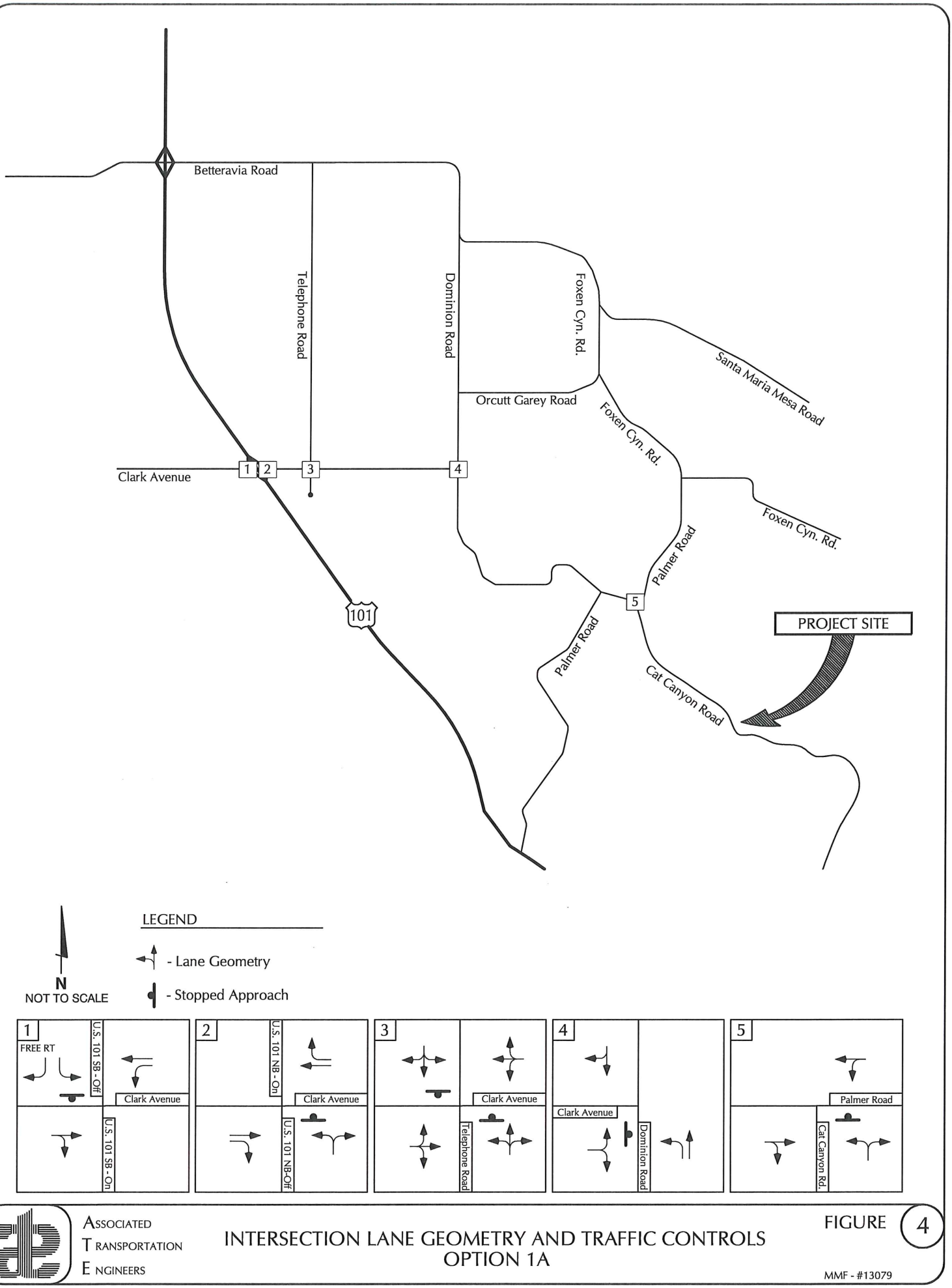

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INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROLS OPTION 1A

FIGURE 4

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Project Trip Generation – All Options

As noted, each of the Project options generates the same level of traffic. The following trip generation analysis therefore applies to all six Project options.

Trip generation estimates were calculated for the Project based on operational information provided by the applicant. The applicant provided detailed information for employees and equipment required for the various phases of the Project, including the number of employees and schedules, material and equipment deliveries, and light crude oil import/produced crude oil export by trucks. Table 3 shows the peak trip generation estimates developed for the Project. It is important to note that the trip generation estimates include traffic that would be generated on a day-to-day basis (operations) as well as traffic that would be generated during peak drilling phases (construction). Thus, the traffic impact analysis is worst case in nature since it combines day-to-day traffic generated by operations and traffic generated during peak drilling phases.

Table 3
Peak Project Trip Generation – All Options

Component	Number Per Day	Shift	Trip Generation				
				A.M. Peak		P.M. Peak	
			ADT	In	Out	In	Out
Employees – Operations							
Aera 9/80 Employees(1)	48	6:30 AM-4:15 PM	144	0	0	0	48
Aera 12H Employees(2)	5	6:00 AM/PM-6:00 PM/AM	15	0	0	0	0
Contract 9/80 Employees(1)	25	6:30 AM-4:15 PM	75	0	0	0	25
Contract 12H Employees(2)	14	6:00 AM/PM-6:00 PM/AM	42	0	0	0	0
Subtotal			276	0	0	0	73
Employees – Drilling							
Aera 9/80 Employees(1)	6	6:30 AM-4:15 PM	18	0	0	0	6
Contract 12H Employees(2)	7	6:00 AM/PM-6:00 PM/AM	21	0	0	0	0
Subtotal			39	0	0	0	0
Bulk Material & Waste Deliveries(3)	4	NA	8	0	1	1	0
Miscellaneous Material Deliveries(3)	5	NA	10	0	1	1	0
Light Crude Oil Import/Produced Crude Oil Export(4)	99.5	NA	199	4	4	4	4
Totals			**532**	**4**	**6**	**6**	**83**

(1) 9/80 workers. Shift starts at 6:30 A.M. and ends at 4:15 P.M. ADT assumes 50% of employee leave site for lunch break.
(2) 12-hour shift workers. Shifts = 6:00 A.M. to 6:00 P.M.; and 6:00 P.M. to 6:00 A.M. ADT assumes 50% of employees leave site for lunch break.
(3) Deliveries assumes one inbound + one outbound trip per delivery. A.M. and P.M. peak hour trip generation assumes 10% of trips during each peak hour.
(4) Light Crude Oil Import/Produced Crude Oil Export assumes one inbound + one outbound trip per truck. A.M. and P.M. peak hour trip generation assumes 4 trucks inbound and outbound per hour.

Table 3 shows that the Project is forecast to generate 532 average daily trips, with 10 trips occurring during the A.M. peak hour and 89 trips occurring during the P.M. peak hour.

Trip Distribution – Option 1A

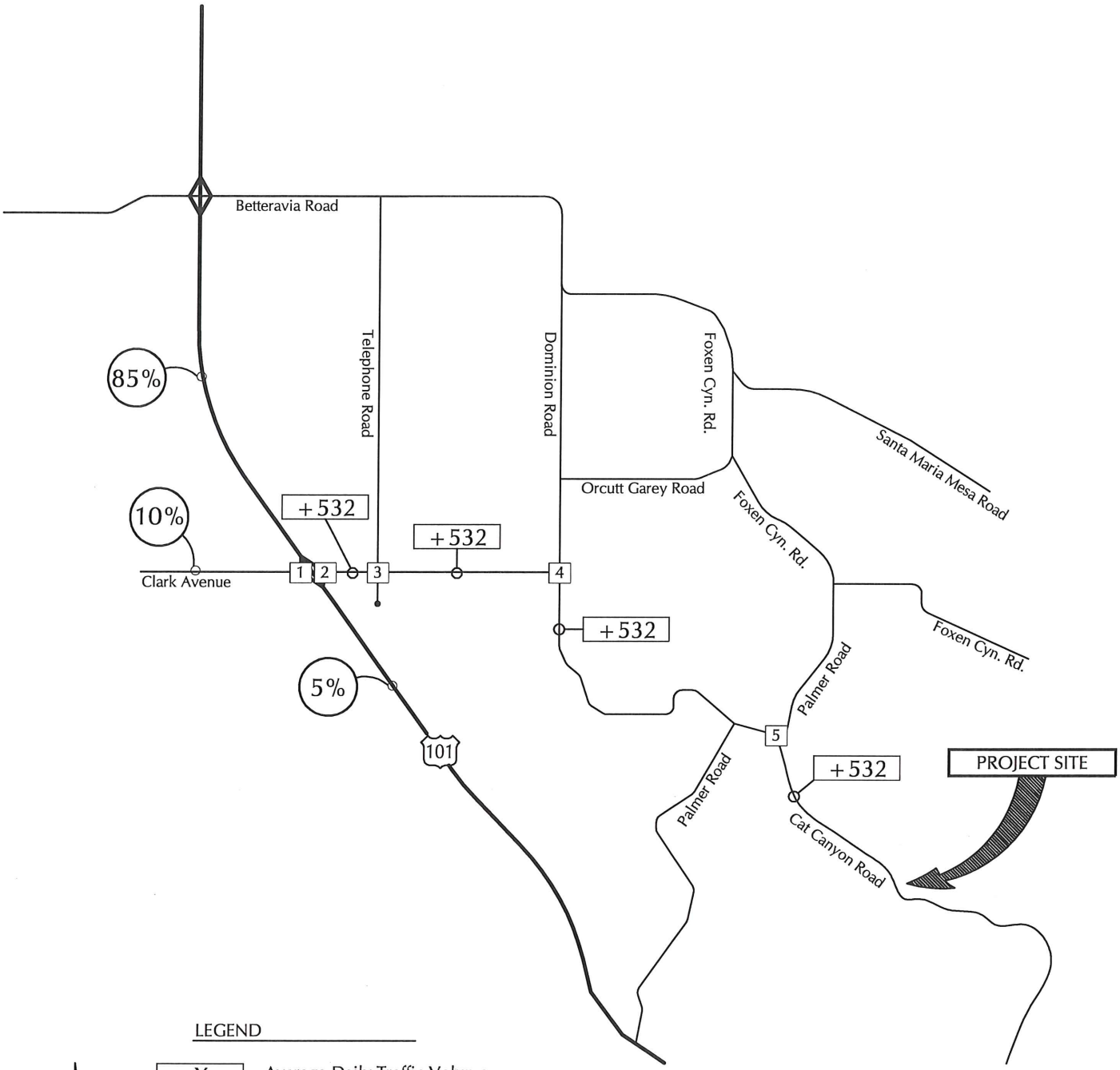
As shown on Figure 4, the travel route for the 99 trucks per day that would transport light crude oil and produced crude oil under Option 1A is southbound U.S. 101 to Clark Avenue to Dominion Road to Palmer Road to Cat Canyon Road for inbound trucks and the reverse for outbound. The trip distribution pattern developed for the other traffic generated under Option 1A is based on anticipated travel routes for employees and material/equipment deliveries. All of the traffic generated by the Project would use the Clark Avenue to Dominion Road to Palmer Road to Cat Canyon Road route when traveling to/from the site. Furthermore, most all of the traffic would use U.S. 101 to access Clark Avenue, with a minor amount of traffic anticipated from the Orcutt community via Clark Avenue west of U.S. 101. The trip distribution pattern developed is summarized in Table 4. Figure 5 shows the assignment of project-generated trips to the Project study-area street network for Option 1A. The Existing + Project volumes for Option 1A are shown on Figure 6.

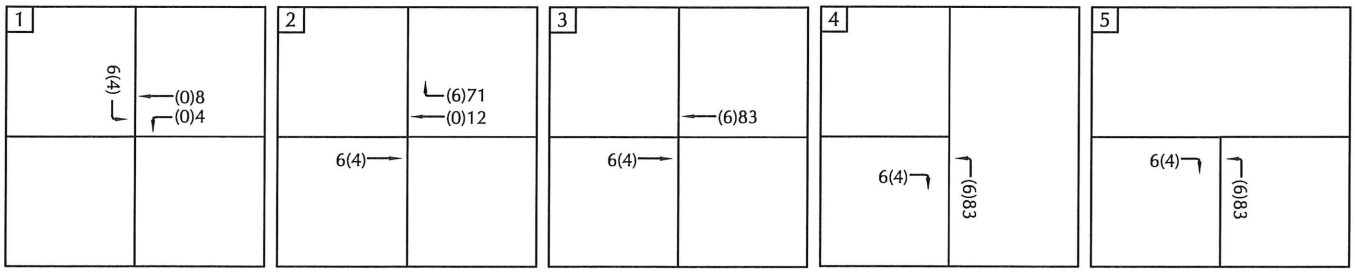
Table 4
Project Trip Distribution – Option 1A

Origin/Destination	Direction	Percentage
U.S. 101(1)	North	85%
U.S. 101	South	5%
Clark Avenue	West	10%
Total		**100%**
(1) Tanker trucks would use U.S. 101/Clark Avenue interchange under Option 1A.		

Existing + Project Roadway Impacts – Option 1A

Table 5 compares the Existing and Existing + Project roadway levels of service and identifies project-specific roadway impacts for Option 1A based on County thresholds.





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PROJECT TRIP DISTRIBUTION AND ASSIGNMENT - OPTION 1A

FIGURE 5

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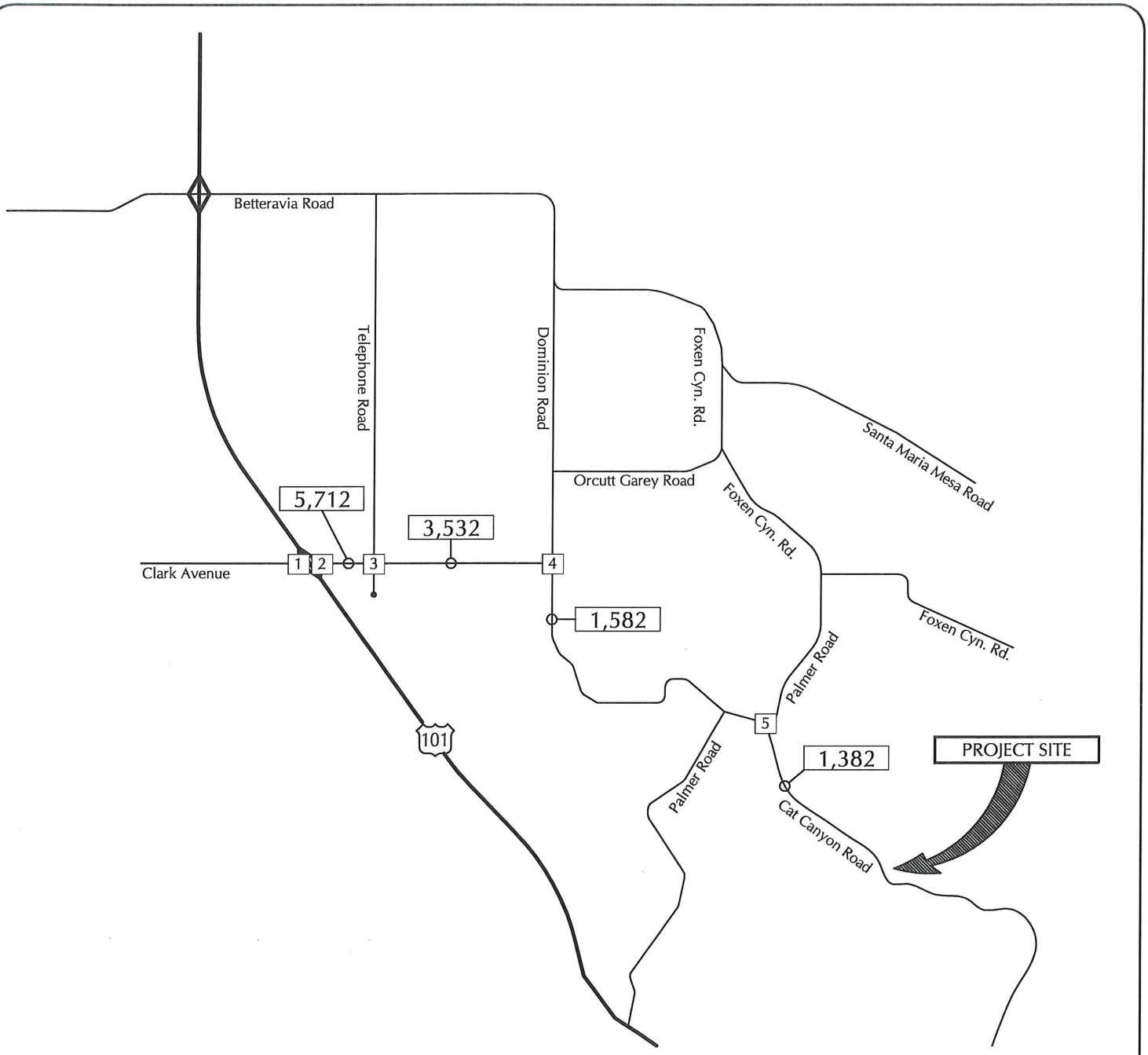

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EXISTING + PROJECT TRAFFIC VOLUMES - OPTION 1A

FIGURE 6

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Table 5
Existing + Project Roadway Operations – Option 1A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Existing	Existing + Project		
Clark Avenue e/o U.S. 101	5,180 / LOS A	5,712 / LOS A	532	No
Clark Avenue e/o Telephone Road	3,000 / LOS A	3,532 / LOS A	532	No
Dominion Road s/o Clark Avenue	1,050 / LOS A	1,582 / LOS A	532	No
Cat Canyon Road s/o Palmer Road	850 / LOS A	1,382 / LOS A	532	No
NOTE: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.				

As shown in Table 5, the Project study-area roadways are forecast to continue to operate at LOS A with the addition of Project traffic for Option 1A, which meets the County's LOS C standard. Thus, the East Cat Canyon Oil Field Redevelopment Project would not generate project-specific roadway impacts under Option 1A.

Existing + Project Intersection Impacts – Option 1A

Tables 6 and 7 compare the Existing and Existing + Project levels of service for the Project study-area intersections for Option 1A and identify project-specific intersection impacts based on County thresholds.

Table 6
Existing + Project A.M. Peak Hour Intersection Operations – Option 1A

Intersection	Existing		Existing + Project		Impact?
	Delay	LOS	Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue	9.7 Sec.	LOS A	9.8 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Telephone Road/Clark Avenue	8.9 Sec.	LOS A	8.9 Sec.	LOS A	No
Dominion Road/Clark Avenue	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Palmer Road/Cat Canyon Road	8.6 Sec.	LOS A	8.6 Sec.	LOS A	No
NOTE: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.					

Table 7
Existing + Project P.M. Peak Hour Intersection Operations – Option 1A

Intersection	Existing		Existing + Project		Impact?
	Delay	LOS	Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue	8.8 Sec.	LOS A	8.9 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue	9.1 Sec.	LOS A	9.2 Sec.	LOS A	No
Telephone Road/Clark Avenue	9.8 Sec.	LOS A	10.4 Sec.	LOS B	No
Dominion Road/Clark Avenue	8.1 Sec.	LOS A	8.3 Sec.	LOS A	No
Palmer Road/Cat Canyon Road	8.8 Sec.	LOS A	9.2 Sec.	LOS A	No
NOTE: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.					

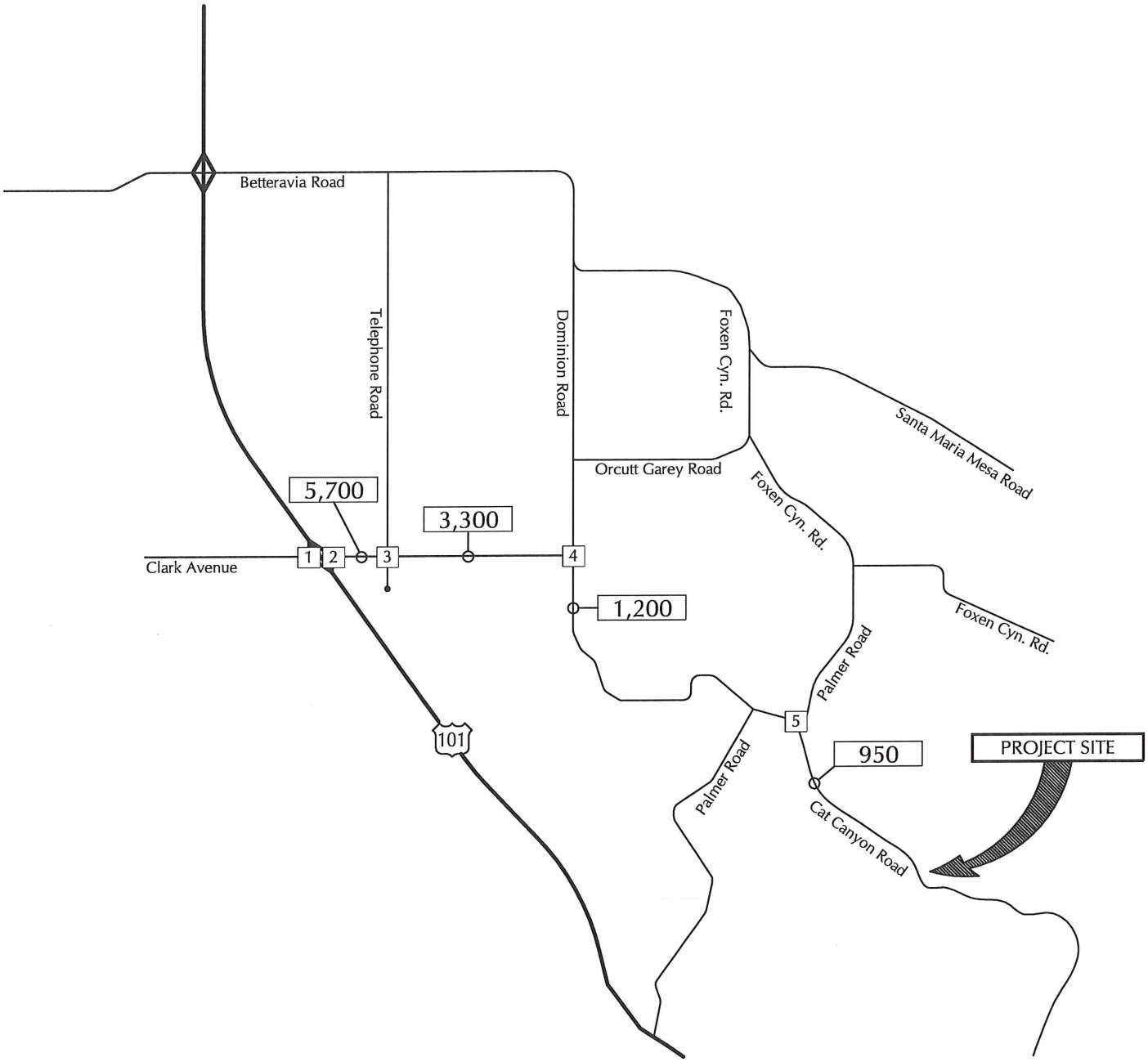
As shown in Tables 6 and 7, the Project study-area intersections are forecast to operate at LOS A or LOS B with Existing + Project traffic for Option 1A, which meets the County's LOS C standard. The East Cat Canyon Oil Field Redevelopment Project would not generate project-specific intersection impacts under Option 1A.

Cumulative + Project Roadway Impacts – Option 1A

Cumulative and Cumulative + Project traffic volumes for Option 1A are shown on Figures 7 and 8. Table 8 compares the Cumulative and Cumulative + Project roadway levels of service for Option 1A and identifies cumulative roadway impacts based on County thresholds.

Table 8
Cumulative + Project Roadway Operations – Option 1A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Cumulative	Cumulative + Project		
Clark Avenue e/o U.S. 101	5,700 / LOS A	6,232 / LOS A	532	No
Clark Avenue e/o Telephone Road	3,300 / LOS A	3,832 / LOS A	532	No
Dominion Road s/o Clark Avenue	1,200 / LOS A	1,732/ LOS A	532	No
Cat Canyon Road s/o Palmer Road	950 / LOS A	1,482 / LOS A	532	No
NOTE: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.				



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CUMULATIVE TRAFFIC VOLUMES - OPTION 1A

FIGURE 7

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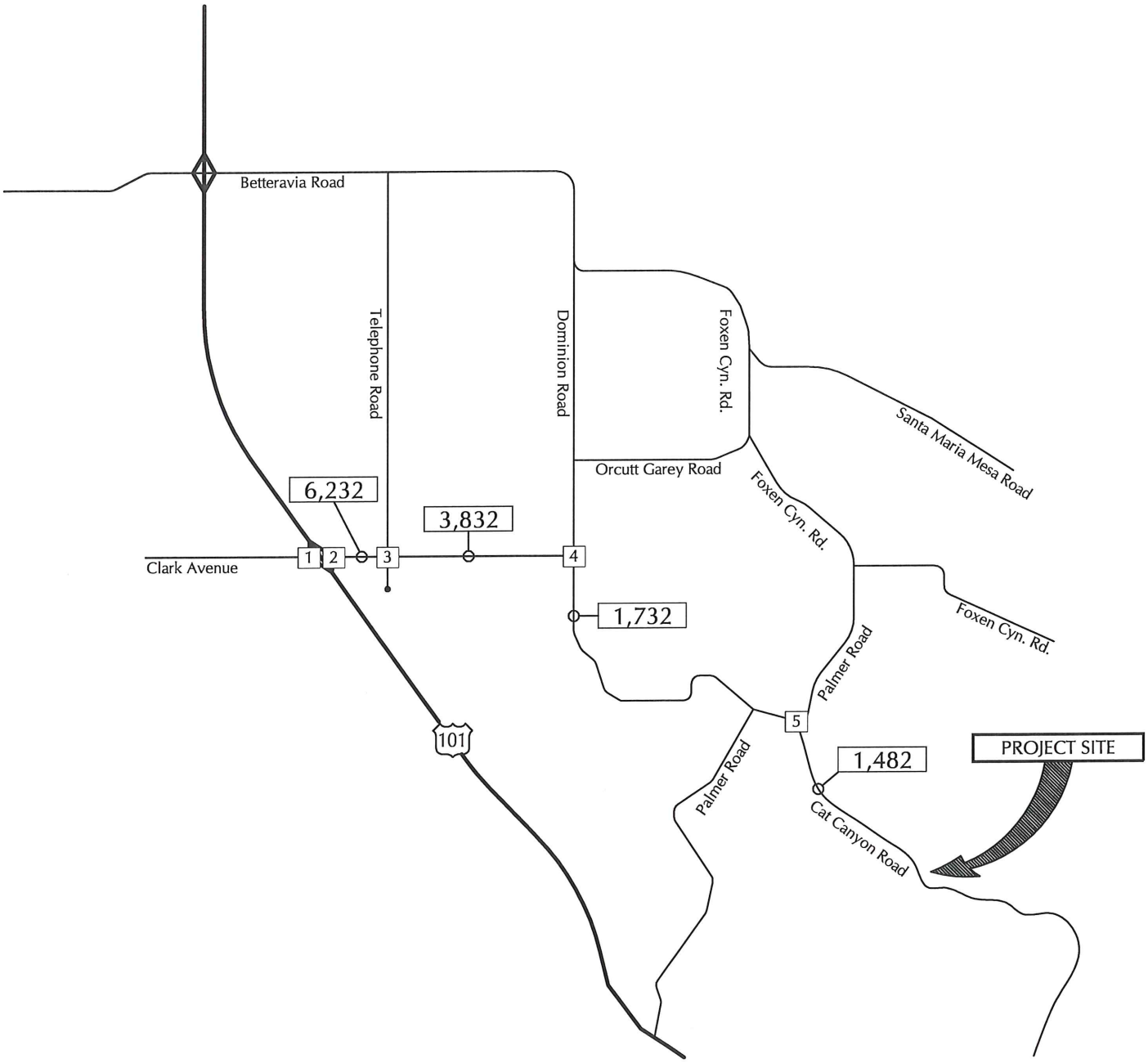

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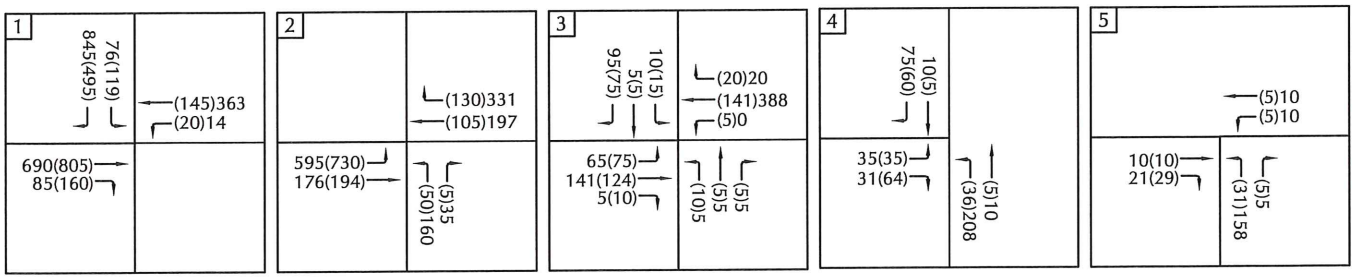
LEGEND

X - Average Daily Traffic Volume

└(XX)XX - (A.M.)P.M. Peak Hour Volume



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CUMULATIVE + PROJECT TRAFFIC VOLUMES - OPTION 1A

FIGURE 8

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As shown, the Project study-area roadways are forecast to operate at LOS A under Cumulative and Cumulative + Project conditions for Option 1A. Thus, Option 1A for the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative roadway impacts.

Cumulative + Project Intersection Impacts – Option 1A

Tables 9 and 10 compare the Cumulative and Cumulative + Project levels of service for the Project study-area intersections for Option 1A and identify cumulative impacts based on County thresholds.

Table 9
Cumulative + Project A.M. Peak Hour Intersection Operations – Option 1A

Intersection	Cumulative		Cumulative + Project		Impact?
	Delay	LOS	Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue	10.7 Sec.	LOS B	10.9 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue	9.0 Sec.	LOS A	9.0 Sec.	LOS A	No
Telephone Road/Clark Avenue	9.1 Sec.	LOS A	9.1 Sec.	LOS A	No
Dominion Road/Clark Avenue	8.6 Sec.	LOS A	8.5 Sec.	LOS A	No
Palmer Road/Cat Canyon Road	8.5 Sec.	LOS A	8.6 Sec.	LOS A	No
NOTE: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.					

Table 10
Cumulative + Project P.M. Peak Hour Intersection Operations – Option 1A

Intersection	Cumulative		Cumulative + Project		Impact?
	Delay	LOS	Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue	10.3 Sec.	LOS B	10.5 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue	10.3 Sec.	LOS B	10.5 Sec.	LOS B	No
Telephone Road/Clark Avenue	10.2 Sec.	LOS B	11.1 Sec.	LOS B	No
Dominion Road/Clark Avenue	8.3 Sec.	LOS A	8.4 Sec.	LOS A	No
Palmer Road/Cat Canyon Road	8.8 Sec.	LOS A	9.4 Sec.	LOS A	No
NOTE: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.					

Tables 9 and 10 show that the Project study-area intersections are forecast to operate at LOS A or LOS B under Cumulative + Project conditions, which meets the County's LOS C standard. Thus, Option 1A for the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative intersection impacts.

PROJECT IMPACTS – OPTION 1B

Option 1B is identical to Option 1A, except for the routing of the tanker trucks. Figure 9 shows the route for the 99 tanker trucks per day under Option 1B. As shown, inbound trucks would come from south of the Orcutt area and use northbound U.S. 101 to Clark Avenue to Dominion Road to Palmer Road to Cat Canyon Road when inbound to the site and the reverse route when outbound from the site.

Potential Impacts

Since the traffic analysis for Option 1A found that it would not generate project-specific or cumulative impacts to the Project study-area roadways and intersections, it can be concluded that Option 1B also would not generate project-specific or cumulative impacts. The difference in Project traffic under Option 1B would be the traffic added to U.S. 101 south of Clark Avenue. Option 1B would add eight peak hour trips to the segment of U.S. 101 south of the Clark Avenue interchange. The segment of U.S. 101 south of Clark Avenue operates at LOS A during the A.M. and P.M. peak hours and would continue to operate at LOS A with the addition of the eight peak hour trips that would be added by Option 1B. Thus, Option 1B would not impact the segment of U.S. 101 south of Clark Avenue.

PROJECT IMPACTS – OPTION 2A

Option 2A is the same as the other Project options except for the routing of tanker trucks. Option 2A assesses potential roadway and intersection impacts generated by the Project assuming the truck route shown on Figure 10.

Existing Street Network

The following text provides a brief discussion of the major components of the Project study-area street network for Option 2A (see Figure 1 for illustration of street network).

U.S. 101, located west of the Project site, is a north-south freeway that provides regional access to the Santa Maria-Orcutt area. U.S. 101 contains 2 lanes in each direction on the segments north and south of Clark Avenue. The U.S. 101/Clark Avenue interchange and U.S. 101/Betteravia Road interchange provide regional access to the Project site under Option 2A.

Clark Avenue is a 2-lane arterial that extends between Dominion Road on the east and U.S. 101 on the west. This segment serves agricultural and residential uses. Clark Avenue also extends west of U.S. 101, traversing the Orcutt community.

Dominion Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and Palmer Road on the south. This segment mostly serves oil facilities and ranch lands.

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OPTION 1B TRUCK ROUTE

FIGURE 9

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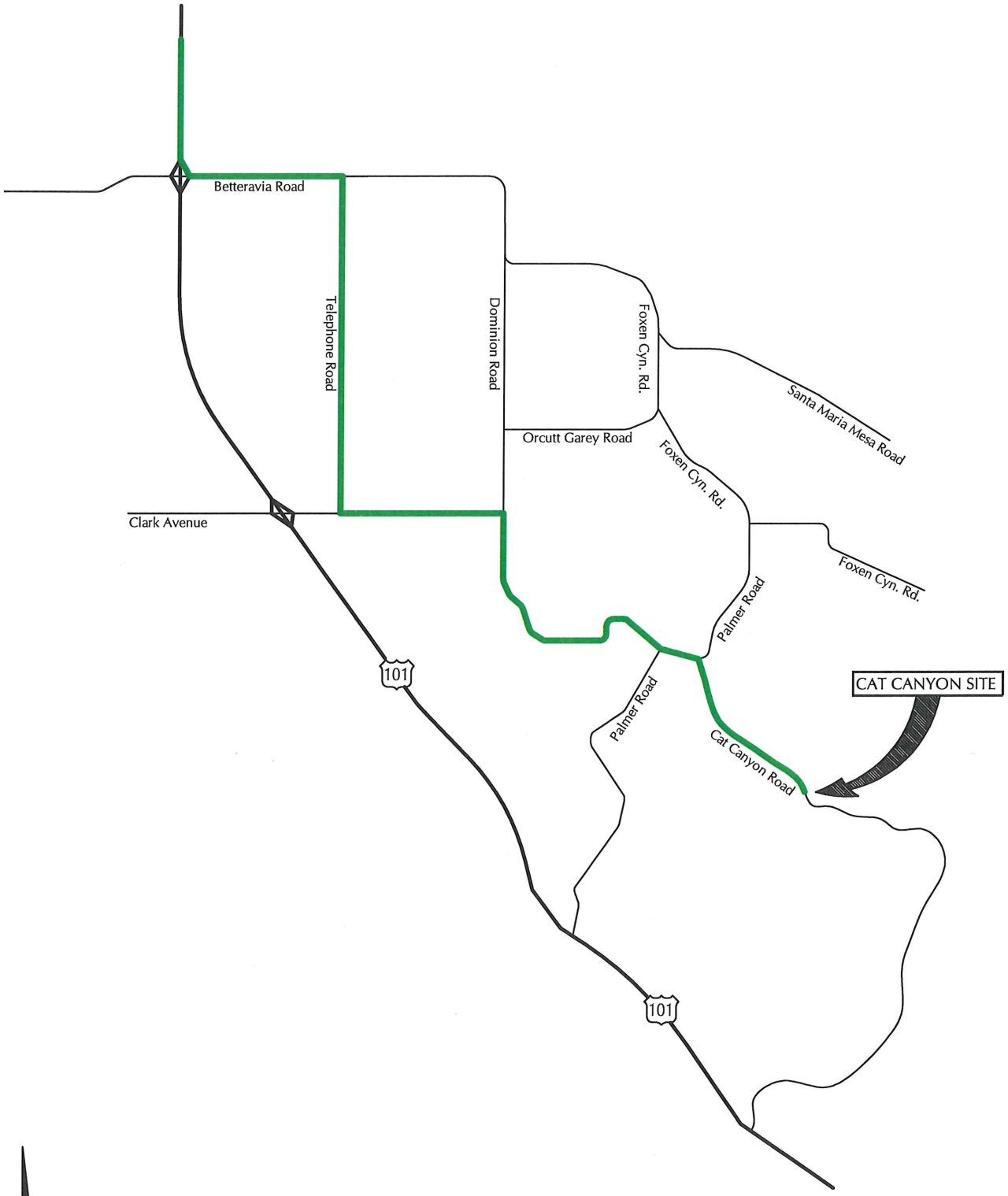

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OPTION 2A TRUCK ROUTE

FIGURE 10

MMF - #13079

Palmer Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and U.S. 101 on the south. There is a short segment of Palmer Road that connects Dominion Road and Cat Canyon Road. This segment mostly serves oil facilities and ranch lands.

Cat Canyon Road is a 2-lane collector road that extends between Palmer Road on the north and U.S. 101 on the south. This segment mostly serves oil facilities and ranch lands. Cat Canyon Road provides direct access to the Project site.

Betteravia Road is a 4-lane arterial road between U.S. 101 and Nicholson Avenue just east of U.S. 101; and is a 2-lane arterial road between Nicholson Avenue and Telephone Road. The 4-lane segment east of U.S. 101 serves a truck stop and service stations; and the 2-lane segment between Nicholson Avenue and Telephone Road serves mostly agricultural uses.

Telephone Road is a 2-lane collector road between Betteravia Road and Clark Avenue. This segment mostly serves residential and agricultural uses.

Existing Roadway Operations

Figure 11 shows the Existing ADT volumes for the key roadway segments that serve Option 2A. Table 11 shows the existing ADT volumes and levels of service for the key roadways.

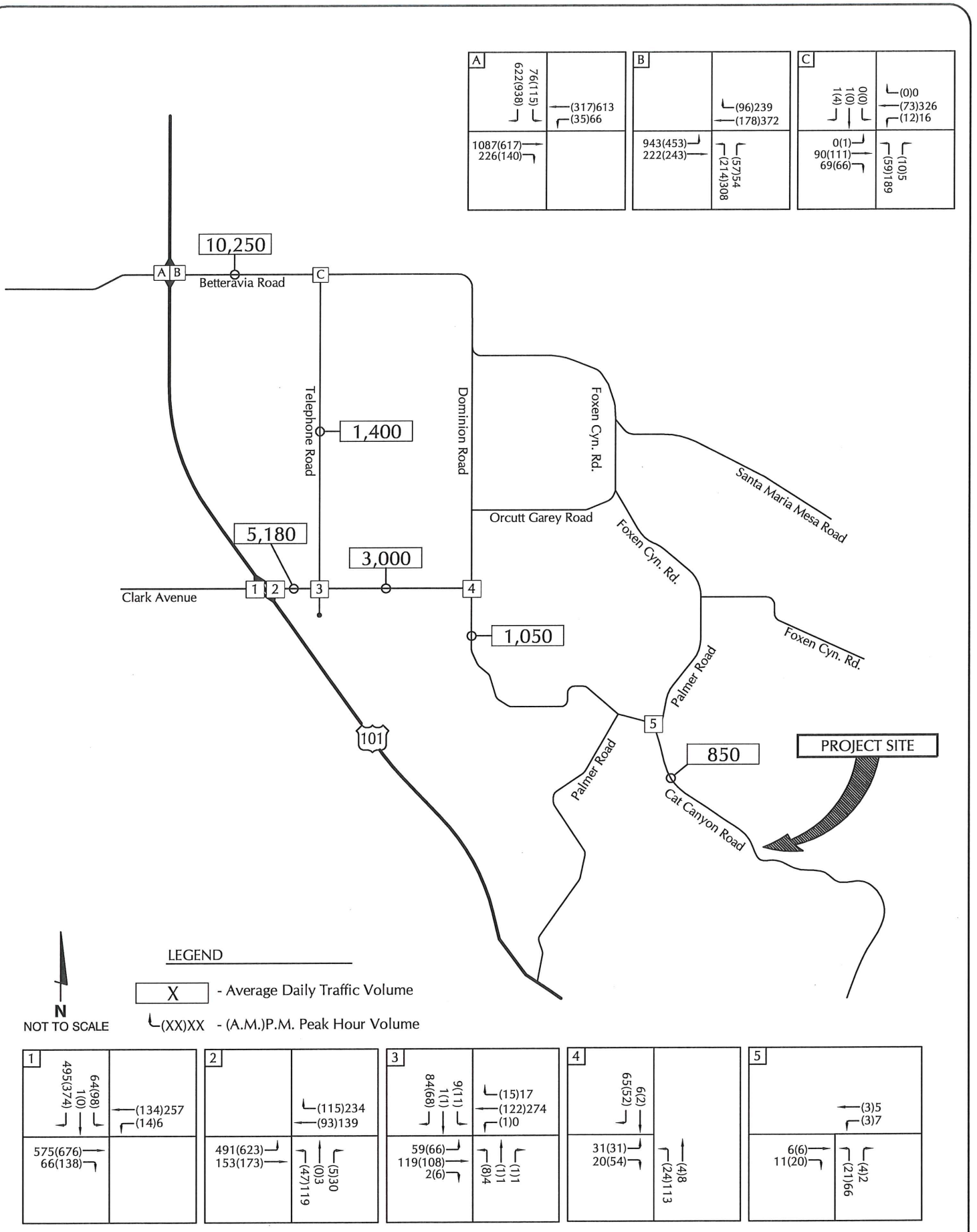
Table 11
Existing Roadway Operations – Option 2A

Roadway Segment	Classification	ADT Volume	LOS
Clark Avenue e/o U.S. 101	2-Lane Arterial	5,180	LOS A
Clark Avenue e/o Telephone Road	2-Lane Arterial	3,000	LOS A
Dominion Road s/o Clark Avenue	2-Lane Collector	1,050	LOS A
Cat Canyon Road s/o Palmer Road	2-Lane Collector	850	LOS A
Betteravia Road e/o U.S. 101	4-Lane Arterial	10,250	LOS A
Telephone Road n/o Clark Avenue	2-Lane Collector	1,400	LOS A

As shown in Table 11, the Project study-area roadways currently operate at LOS A, which meets the County's LOS C standard.

Existing Intersection Operations

Figure 11 shows the Existing A.M. and P.M. peak hour traffic volumes for the key intersections identified for analysis for Option 2A. Figure 12 shows the lane geometries and traffic controls for the key intersections. Table 12 presents the Existing A.M. and P.M. peak hour levels of service for the Project study-area intersections for Option 2A.



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EXISTING TRAFFIC VOLUMES - OPTION 2A

FIGURE 11

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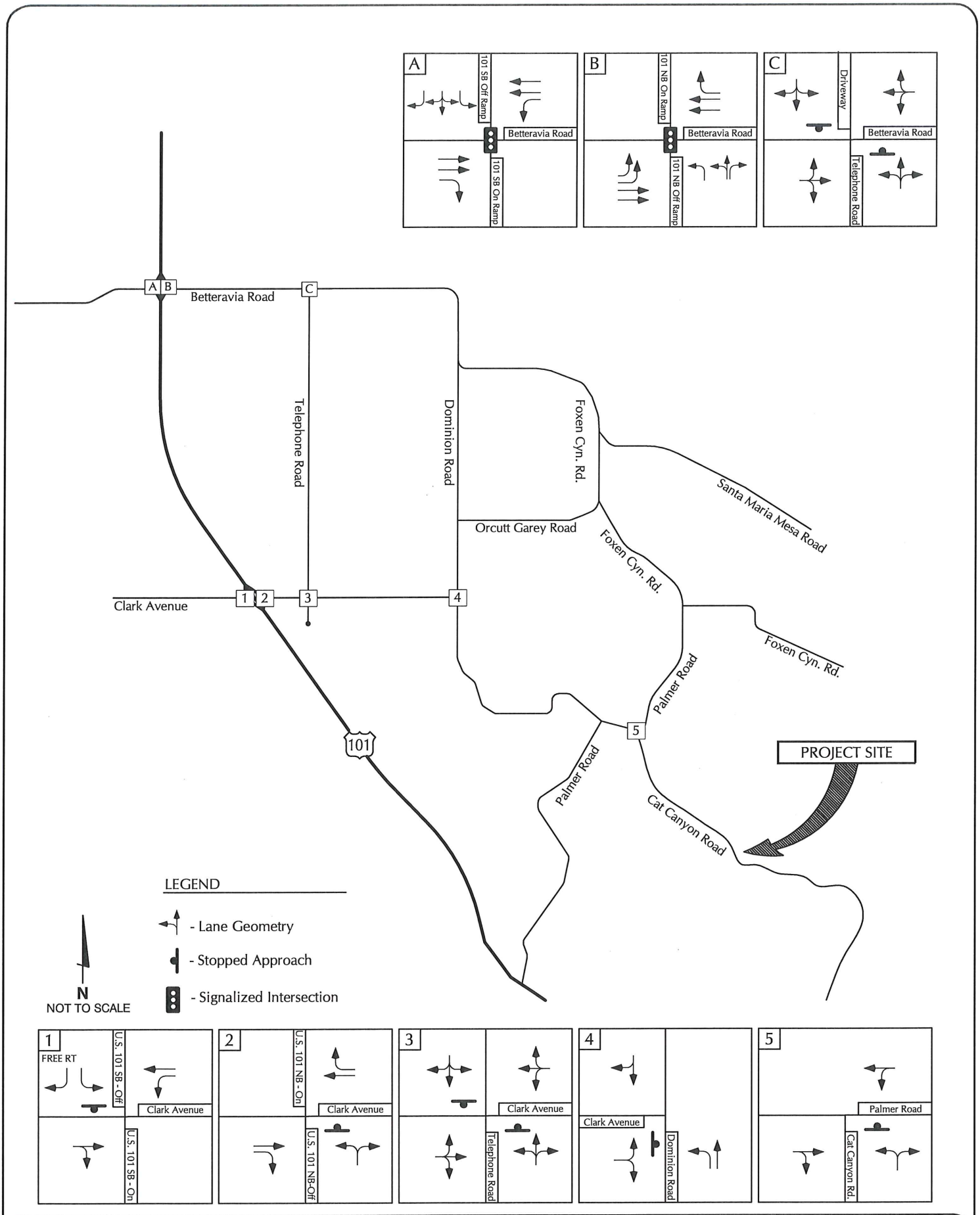

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INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROLS OPTION 2A

FIGURE 12

MMF - #13079

Table 12
Existing Intersection Operations – Option 2A

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		ICU or Delay	LOS	ICU or Delay	LOS
U.S. 101 SB Ramps/Clark Avenue(1)	Stop Sign	9.7 Sec.	LOS A	8.8 Sec.	LOS A
U.S. 101 NB Ramps/Clark Avenue(1)	Stop Sign	8.5 Sec.	LOS A	9.1 Sec.	LOS A
Telephone Road/Clark Avenue(1)	Stop Sign	8.9 Sec.	LOS A	9.8 Sec.	LOS A
Dominion Road/Clark Avenue(1)	Stop Sign	8.5 Sec.	LOS A	8.1 Sec.	LOS A
Palmer Road/Cat Canyon Road(1)	Stop Sign	8.6 Sec.	LOS A	8.8 Sec.	LOS A
U.S. 101 SB Ramps/Betteravia Road(2)	Signal	0.48	LOS A	0.59	LOS A
U.S. 101 NB Ramps/Betteravia Road(2)	Signal	0.37	LOS A	0.61	LOS B
Telephone Road/Betteravia Road(1)	Stop Sign	10.1 Sec.	LOS B	16.4 Sec.	LOS C

(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.

(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

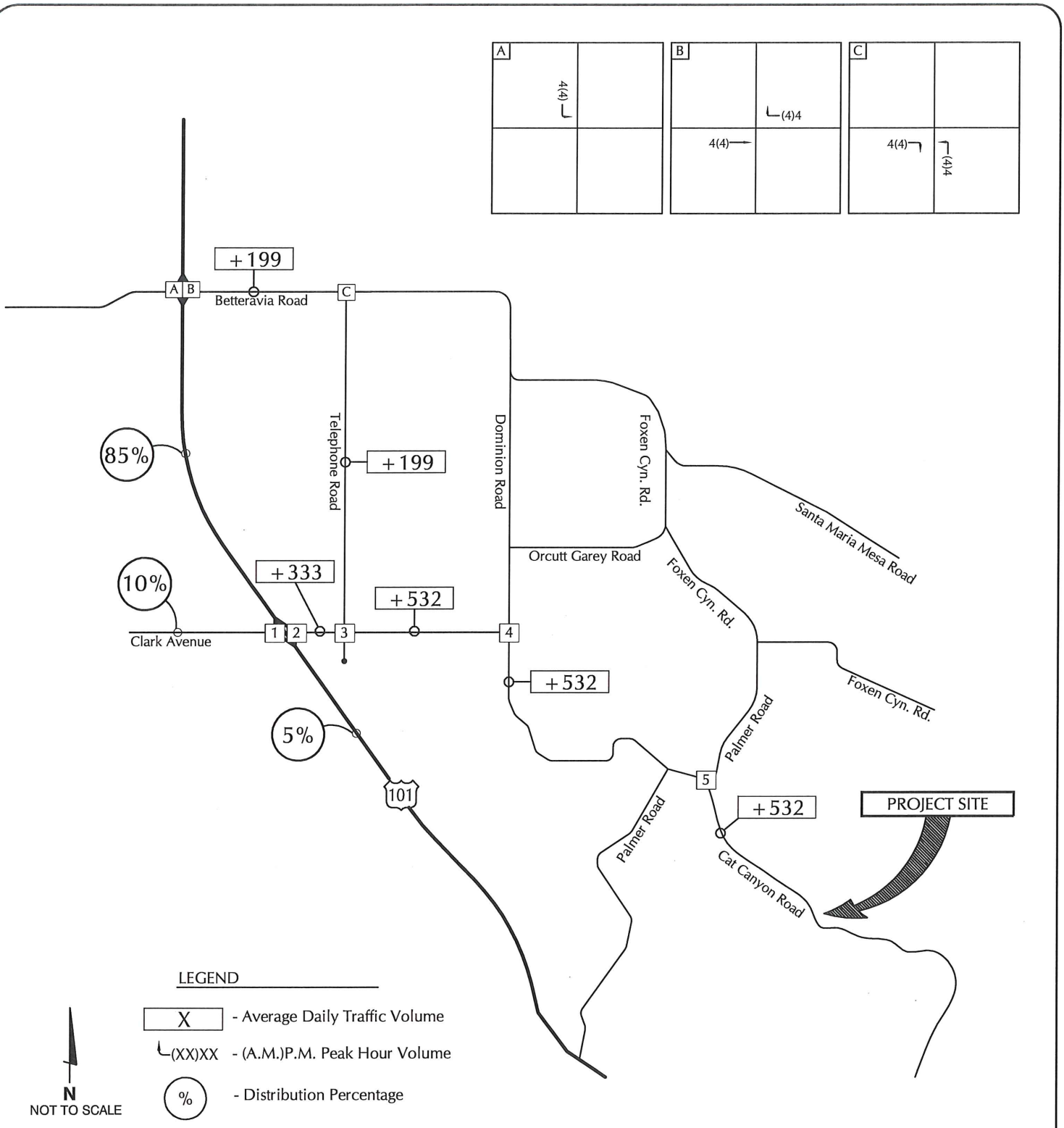
As shown in Table 12, the Project study-area intersections for Option 2A operate at LOS C or better during the A.M. and P.M. peak periods, which meet the County's LOS C standard.

Trip Generation

As noted, each Project options generates the same level of traffic. Thus, Option 2A is forecast to generate 532 average daily trips, with 10 trips occurring during the A.M. peak hour and 89 trips occurring during the P.M. peak hour (see Table 3).

Trip Distribution – Option 2A

Figure 10 shows the travel route for the 99 tanker trucks per day under Option 2A. As shown, inbound trucks would travel on southbound U.S. 101 to Betteravia Road to Telephone Road to Clark Avenue to Dominion Road to Palmer Road to Cat Canyon Road. Outbound trucks would use the same route in reverse. The trip distribution pattern for the remaining traffic generated under Option 2A would be the same as the other options. The trip distribution pattern for Option 2A is summarized in Table 13. Figure 13 shows the assignment of project-generated trips. The Existing + Project volumes for Option 2A are shown on Figure 14.



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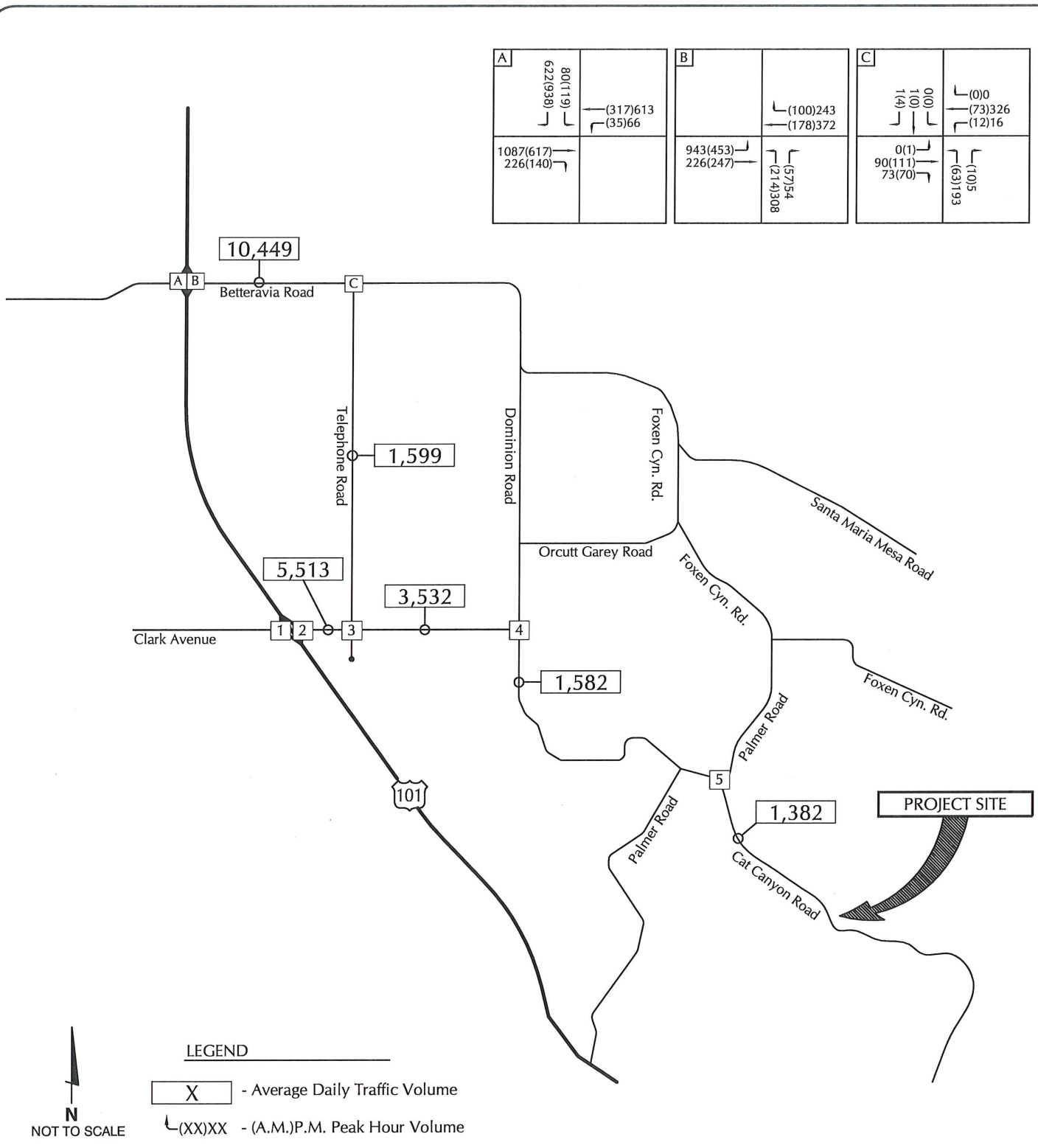
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT - OPTION 2A

FIGURE 13

MMF - #13079



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EXISTING + PROJECT TRAFFIC VOLUMES - OPTION 2A

FIGURE 14

MMF - #13079

Table 13
Project Trip Distribution – Option 2A

Origin/Destination	Direction	Percentage
U.S. 101(1)	North	85%
U.S. 101	South	5%
Clark Avenue	West	10%
Total		**100%**
(1) Tanker trucks would use U.S. 101/Betteravia Road interchange under Option 2A.		

Existing + Project Roadway Impacts – Option 2A

Table 14 compares the Existing and Existing + Project roadway levels of service and identifies project-specific roadway impacts for Option 2A based on County thresholds.

Table 14
Existing + Project Roadway Operations – Option 2A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Existing	Existing + Project		
Clark Avenue e/o U.S. 101	5,180 / LOS A	5,513 / LOS A	333	No
Clark Avenue e/o Telephone Road	3,000 / LOS A	3,532 / LOS A	532	No
Dominion Road s/o Clark Avenue	1,050 / LOS A	1,582 / LOS A	532	No
Cat Canyon Road s/o Palmer Road	850 / LOS A	1,382 / LOS A	532	No
Betteravia Road e/o U.S. 101	10,250 / LOS A	10,449 / LOS A	199	No
Telephone Road n/o Clark Avenue	1,400 / LOS A	1,599 / LOS A	199	No
NOTE: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.				

As shown, the Project study-area roadways are forecast to continue to operate at LOS A with the addition of Project traffic under Option 2A, which meets the County's LOS C standard. Thus, the East Cat Canyon Oil Field Redevelopment Project would not generate project-specific roadway impacts under Option 2A.

Existing + Project Intersection Impacts – Option 2A

Tables 15 and 16 compare the Existing and Existing + Project levels of service for the Project study-area intersections and identify project-specific impacts based on County thresholds.

Table 15
Existing + Project A.M. Peak Hour Intersection Operations – Option 2A

Intersection	Existing		Existing + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	9.7 Sec.	LOS A	9.7 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	8.9 Sec.	LOS A	9.0 Sec.	LOS A	No
Dominion Road/Clark Avenue(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.6 Sec.	LOS A	8.6 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.48	LOS A	0.48	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.37	LOS A	0.37	LOS A	No
Telephone Road/Betteravia Road(1)	10.1 Sec.	LOS B	10.1 Sec.	LOS B	No

NOTES: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

Table 16
Existing + Project P.M. Peak Hour Intersection Operations – Option 2A

Intersection	Existing		Existing + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	8.8 Sec.	LOS A	8.9 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue(1)	9.1 Sec.	LOS A	8.5 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	9.8 Sec.	LOS A	10.5 Sec.	LOS B	No
Dominion Road/Clark Avenue(1)	8.1 Sec.	LOS A	8.3 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.8 Sec.	LOS A	9.2 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.59	LOS A	0.59	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.61	LOS B	0.61	LOS B	No
Telephone Road/Betteravia Road(1)	16.4 Sec.	LOS C	16.6 Sec.	LOS C	No

NOTES: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

As shown in Tables 15 and 16, the Project study-area intersections are forecast to operate at LOS C or better with Existing + Project traffic under Option 2A, which meets the County's LOS C standard. The East Cat Canyon Oil Field Redevelopment Project would not generate project-specific intersection impacts under Option 2A.

Cumulative + Project Roadway Impacts – Option 2A

Cumulative and Cumulative + Project traffic volumes for Option 2A are shown on Figures 15 and 16. Table 17 compares the Cumulative and Cumulative + Project roadway levels of service for Option 2A and identifies cumulative impacts based on County thresholds.

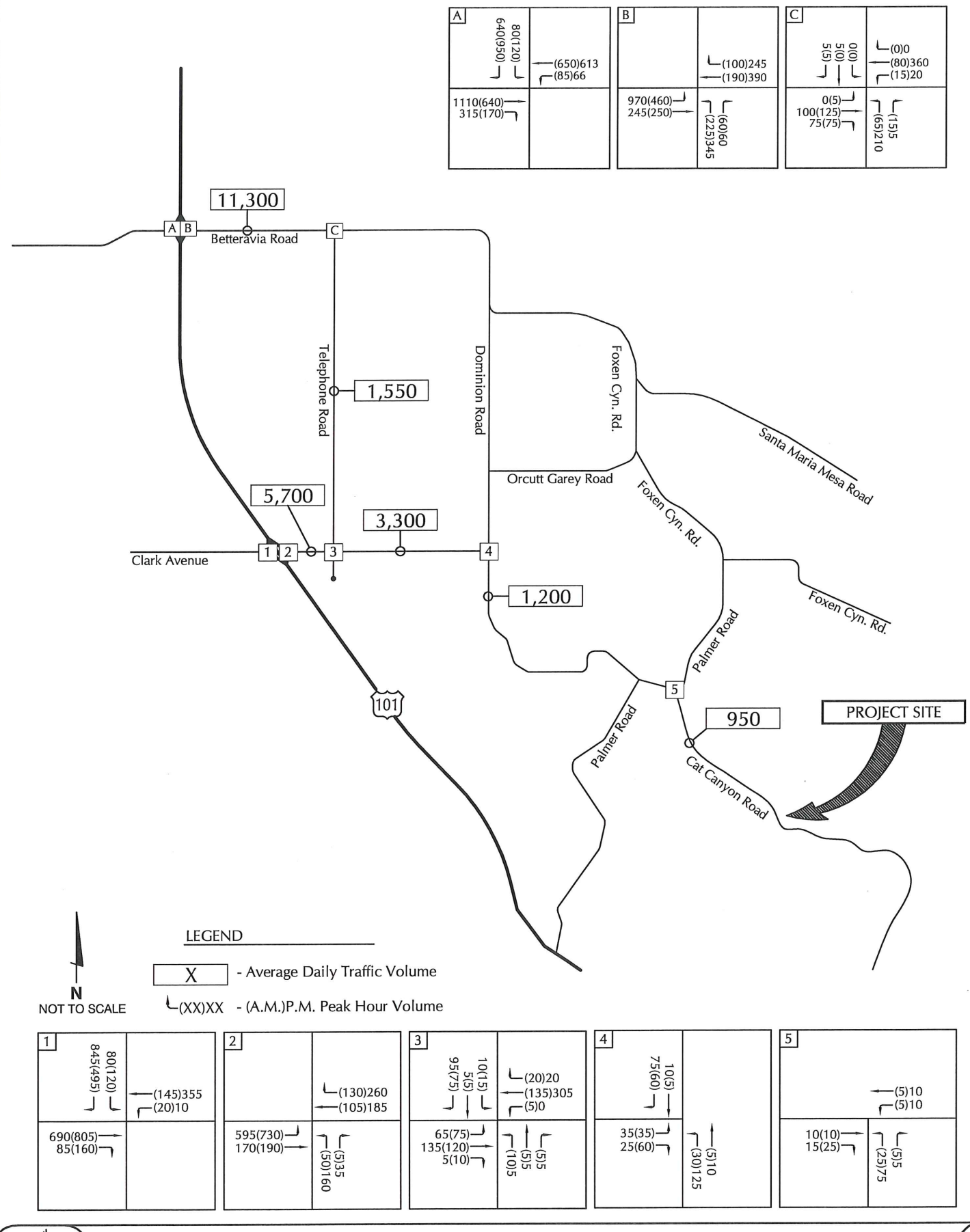
Table 17
Cumulative + Project Roadway Operations – Option 2A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Cumulative	Cumulative + Project		
Clark Avenue e/o U.S. 101	5,700 / LOS A	6,033/ LOS A	333	No
Clark Avenue e/o Telephone Road	3,300 / LOS A	3,832/ LOS A	532	No
Dominion Road s/o Clark Avenue	1,200 / LOS A	1,732 / LOS A	532	No
Cat Canyon Road s/o Palmer Road	950 / LOS A	1,482 / LOS A	532	No
Betteravia Road e/o U.S. 101	11,300 / LOS A	11,499 / LOS A	199	No
Telephone Road n/o Clark Avenue	1,550 / LOS A	1,749 / LOS A	199	No
NOTE: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.				

As shown, the Project study-area roadways are forecast to operate at LOS A under Cumulative and Cumulative + Project conditions for Option 2A. Thus, the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative roadway impacts under Option 2A.

Cumulative + Project Intersection Impacts – Option 2A

Tables 18 and 19 compare the Cumulative and Cumulative + Project levels of service for the Project study-area intersections for Option 2A and identify cumulative impacts based on County thresholds.



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CUMULATIVE TRAFFIC VOLUMES - OPTION 2A

FIGURE 15

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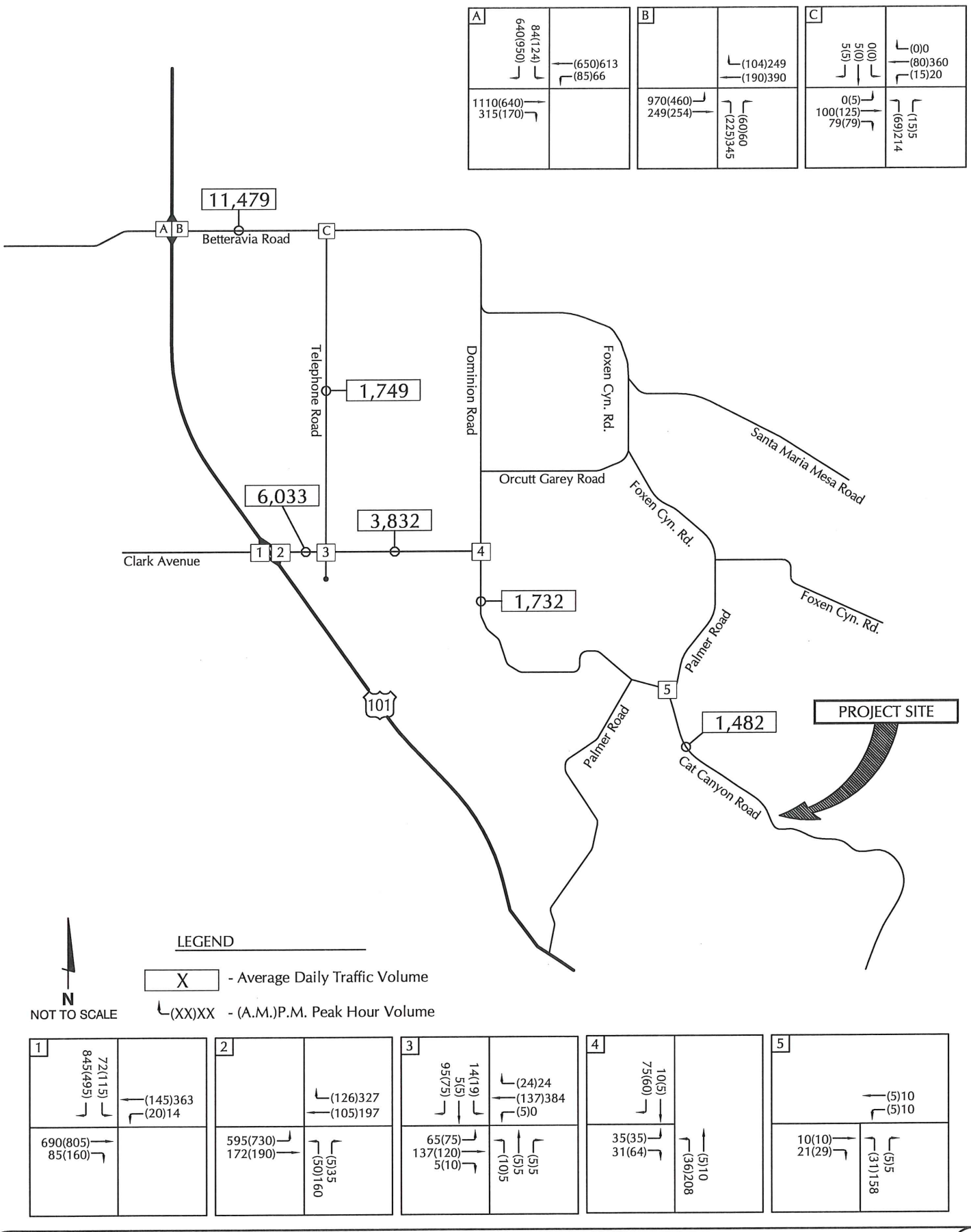

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CUMULATIVE + PROJECT TRAFFIC VOLUMES - OPTION 2A

FIGURE 16

MMF - #13079

Table 18
Cumulative + Project A.M. Peak Hour Intersection Operations – Option 2A

Intersection	Cumulative		Cumulative + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	10.7 Sec.	LOS B	10.7 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue(1)	9.0 Sec.	LOS A	9.0 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	9.1 Sec.	LOS A	9.2 Sec.	LOS A	No
Dominion Road/Clark Avenue(1)	8.6 Sec.	LOS A	8.5 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.49	LOS A	0.49	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.37	LOS A	0.37	LOS A	No
Telephone Road/Betteravia Road(1)	10.2 Sec.	LOS B	10.3 Sec.	LOS B	No

NOTES: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

Table 19
Cumulative + Project P.M. Peak Hour Intersection Operations – Option 2A

Intersection	Cumulative		Cumulative + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	10.3 Sec.	LOS B	10.4 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue(1)	10.3 Sec.	LOS B	10.5 Sec.	LOS B	No
Telephone Road/Clark Avenue(1)	10.2 Sec.	LOS B	10.5 Sec.	LOS B	No
Dominion Road/Clark Avenue(1)	8.3 Sec.	LOS A	8.4 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.8 Sec.	LOS A	9.4 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.61	LOS B	0.61	LOS B	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.63	LOS B	0.63	LOS B	No
Telephone Road/Betteravia Road(1)	19.6 Sec.	LOS C	19.9 Sec.	LOS C	No

NOTES: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

Tables 18 and 19 show that the Project study-area intersections are forecast to operate at LOS C or better under Cumulative + Project conditions, which meets the County's LOS C standard. Thus, Option 2A for the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative intersection impacts.

PROJECT IMPACTS – OPTION 2B

Option 2B is identical to Option 2A, except that the 99 trucks per day transporting light crude oil and produced crude oil would come from the south of the Orcutt area. Figure 17 shows the route for tanker trucks under Option 2B. As shown, inbound trucks would travel on northbound U.S. 101 to Betteravia Road to Telephone Road to Clark Avenue to Dominion Road to Palmer Road to Cat Canyon Road. Outbound trucks would use the same route in reverse.

Potential Impacts

Since the traffic analysis for Option 2A found that it would not generate project-specific or cumulative impacts to the Project study-area roadways and intersections, it can be concluded that Option 2B also would not generate project-specific or cumulative impacts. The difference in Project traffic under Option 2B would be traffic added to U.S. 101 south of Clark Avenue. Option 2B would add eight peak hour trips to the segment of U.S. 101 south of the Clark Avenue interchange. This segment of U.S. 101 operates at LOS A during the A.M. and P.M. peak hours and would continue to operate at LOS A with the addition of the eight peak hour trips that would be added by Option 2B. Thus, Option 2B would not impact the segment of U.S. 101 south of Clark Avenue.

PROJECT IMPACTS – OPTION 3A

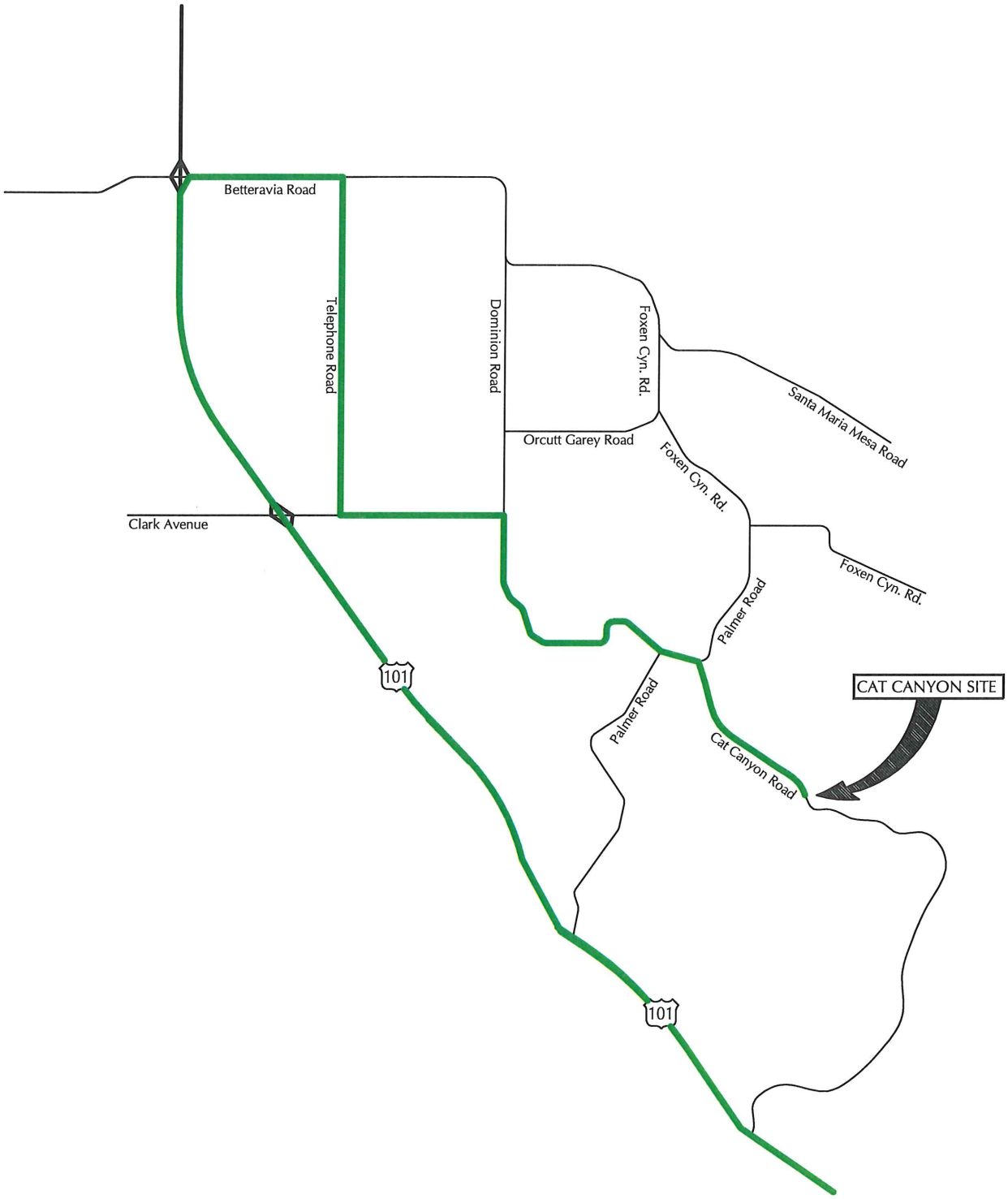
Option 3A is the same as the other Project options except for the routing of tanker trucks. Option 3A assesses potential roadway and intersection impacts generated by the Project assuming the truck route shown on Figure 18 (see Trip Distribution – Option 3A for discussion).

Existing Street Network

The following text provides a brief discussion of the major components of the Project study-area street network for Option 3A (see Figure 1 for illustration of street network).

U.S. 101, located west of the Project site, is a north-south freeway that provides regional access to the Santa Maria-Orcutt area. U.S. 101 contains 2 lanes in each direction on the segments north and south of Clark Avenue. The U.S. 101/Clark Avenue interchange and U.S. 101/Betteravia Road interchange provide regional access to the Project site.

Clark Avenue is a 2-lane arterial that extends between Dominion Road on the east and U.S. 101 on the west. This segment serves agricultural and residential uses. Clark Avenue also extends west of U.S. 101, traversing the Orcutt community.



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OPTION 2B TRUCK ROUTE

FIGURE 17

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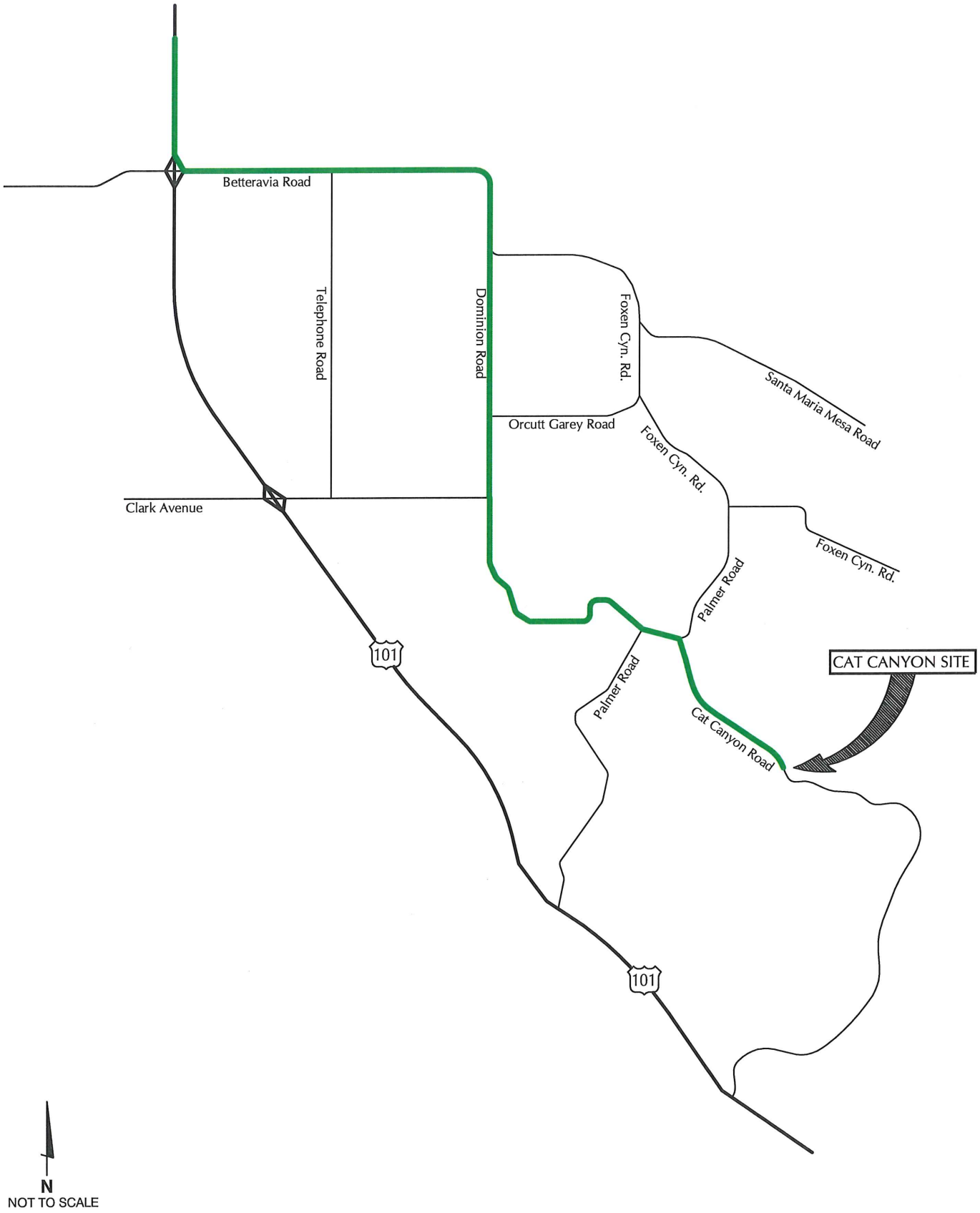

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OPTION 3A TRUCK ROUTE

FIGURE 18

MMF - #13079

Dominion Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and Palmer Road on the south. This segment mostly serves oil facilities and ranch lands.

Palmer Road is a 2-lane collector road that extends between Foxen Canyon Road on the north and U.S. 101 on the south. There is a short segment of Palmer Road that connects Dominion Road and Cat Canyon Road. This segment mostly serves oil facilities and ranch lands.

Cat Canyon Road is a 2-lane collector road that extends between Palmer Road on the north and U.S. 101 on the south. This segment mostly serves oil facilities and ranch lands. Cat Canyon Road provides direct access to the Project site.

Betteravia Road is a 4-lane arterial road between U.S. 101 and Nicholson Avenue just east of U.S. 101; and is a 2-lane arterial road between Nicholson Avenue and Telephone Road. The 4-lane segment east of U.S. 101 serves a truck stop and service stations; and the 2-lane segment between Nicholson Avenue and Dominion Road serves mostly agricultural uses.

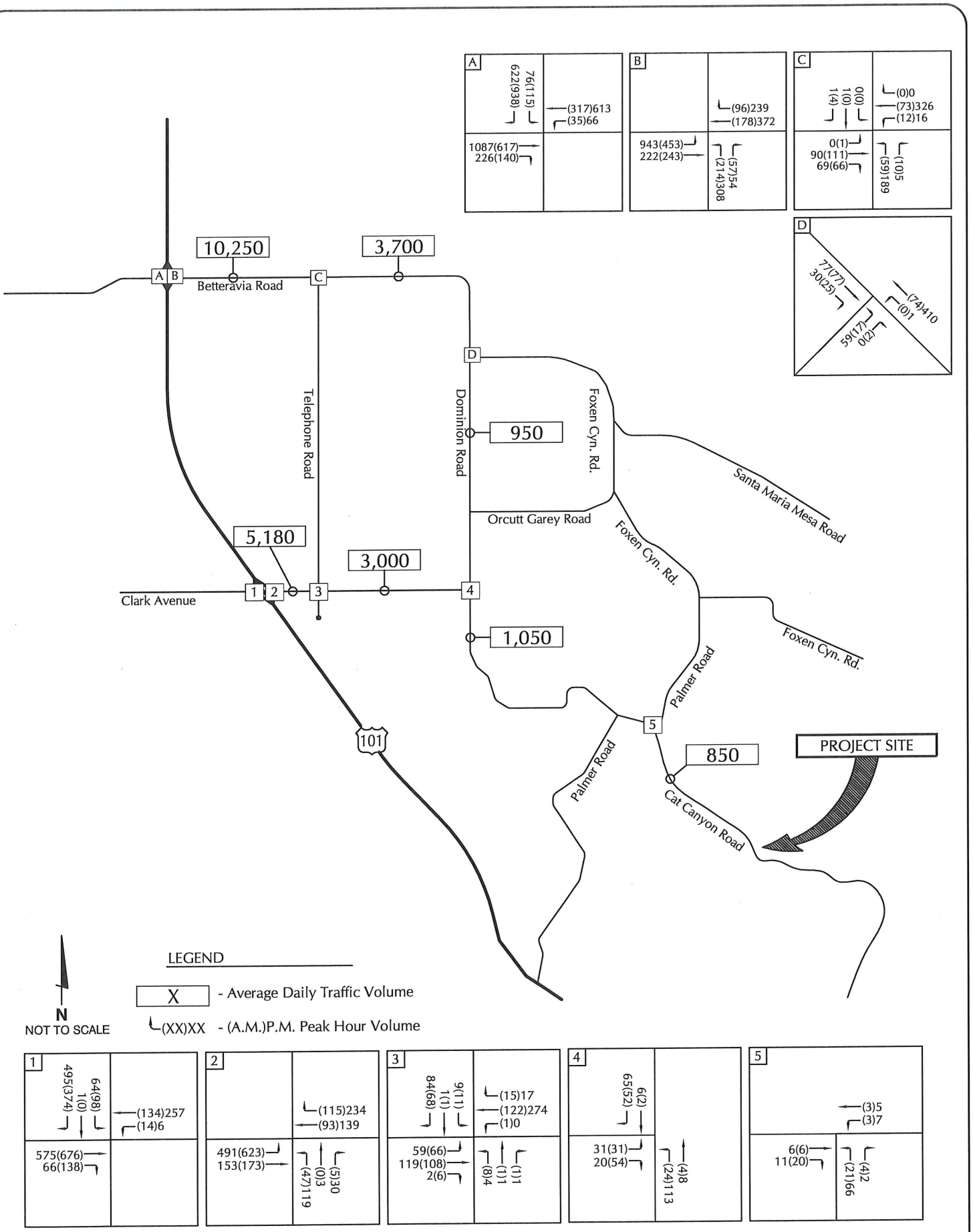
Existing Roadway Operations

Figure 19 presents the Existing ADT volumes for the key roadway segments that serve Option 3A. Table 20 shows the existing ADT volumes and levels of service for the key roadways.

Table 20
Existing Roadway Operations – Option 3A

Roadway Segment	Classification	ADT Volume	LOS
Clark Avenue e/o U.S. 101	2-Lane Arterial	5,180	LOS A
Clark Avenue e/o Telephone Road	2-Lane Arterial	3,000	LOS A
Dominion Road s/o Clark Avenue	2-Lane Collector	1,050	LOS A
Cat Canyon Road s/o Palmer Road	2-Lane Collector	850	LOS A
Betteravia Road e/o U.S. 101	4-Lane Arterial	10,250	LOS A
Betteravia Road e/o Telephone Road	2-Lane Arterial	3,700	LOS A
Dominion Road n/o Clark Avenue	2-Lane Collector	950	LOS A

As shown, the Project study-area roadways currently operate at LOS A, which meets the County's LOS C standard.



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EXISTING TRAFFIC VOLUMES - OPTION 3A

FIGURE 19

MMF - #13079

Existing Intersection Operations

Figure 19 shows the Existing A.M. and P.M. peak hour traffic volumes for the key intersections identified for analysis for Option 3A. Figure 20 shows the lane geometries and traffic controls for the key intersections. Table 21 presents the Existing A.M. and P.M. peak hour levels of service for the Project study-area intersections for Option 3A.

Table 21
Existing Intersection Operations – Option 3A

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		ICU or Delay	LOS	ICU or Delay	LOS
U.S. 101 SB Ramps/Clark Avenue(1)	Stop Sign	9.7 Sec.	LOS A	8.8 Sec.	LOS A
U.S. 101 NB Ramps/Clark Avenue(1)	Stop Sign	8.5 Sec.	LOS A	9.1 Sec.	LOS A
Telephone Road/Clark Avenue(1)	Stop Sign	8.9 Sec.	LOS A	9.8 Sec.	LOS A
Dominion Road/Clark Avenue(1)	Stop Sign	8.5 Sec.	LOS A	8.1 Sec.	LOS A
Palmer Road/Cat Canyon Road(1)	Stop Sign	8.6 Sec.	LOS A	8.8 Sec.	LOS A
U.S. 101 SB Ramps/Betteravia Road(2)	Signal	0.48	LOS A	0.59	LOS A
U.S. 101 NB Ramps/Betteravia Road(2)	Signal	0.37	LOS A	0.61	LOS B
Telephone Road/Betteravia Road(1)	Stop Sign	10.1 Sec.	LOS B	16.4 Sec.	LOS C
Dominion Road/Foxen Canyon Road(1)	Stop Sign	9.4 Sec.	LOS A	12.7 Sec.	LOS B

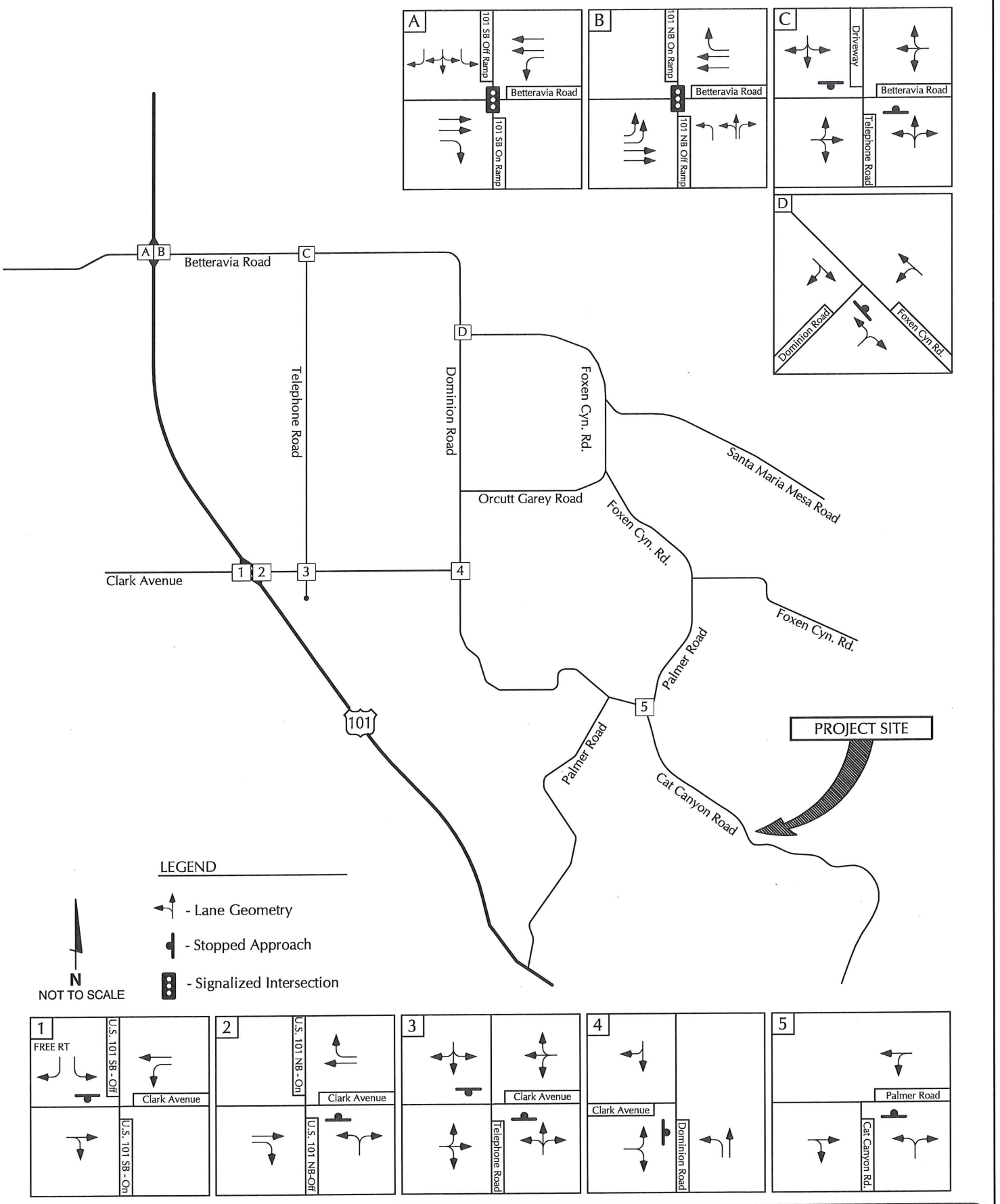
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.

(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

As shown, the Project study-area intersections for Option 3A operate at LOS C or better during the A.M. and P.M. peak periods, which meet the County's LOS C standard.

Trip Generation

Option 3A is forecast to generate 532 average daily trips, with 10 trips occurring during the A.M. peak hour and 89 trips occurring during the P.M. peak hour (same as other options - see Table 3).



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INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROLS OPTION 3A

FIGURE 20

MMF - #13079

Trip Distribution – Option 3A

As shown in Figure 18, the 99 trucks per day transporting light crude oil and produced crude oil under Option 3A would travel southbound U.S. 101 to Betteravia Road to Dominion Road to Palmer Road to Cat Canyon Road. Outbound trucks would use the same route in reverse. The trip distribution pattern for the remaining traffic generated under Option 3A would be the same as the other options. The trip distribution pattern is summarized in Table 22 and Figure 21 shows the assignment of project-generated trips for Option 3A. The Existing + Project volumes for Option 3A are shown on Figure 22.

Table 22
Project Trip Distribution – Option 3A

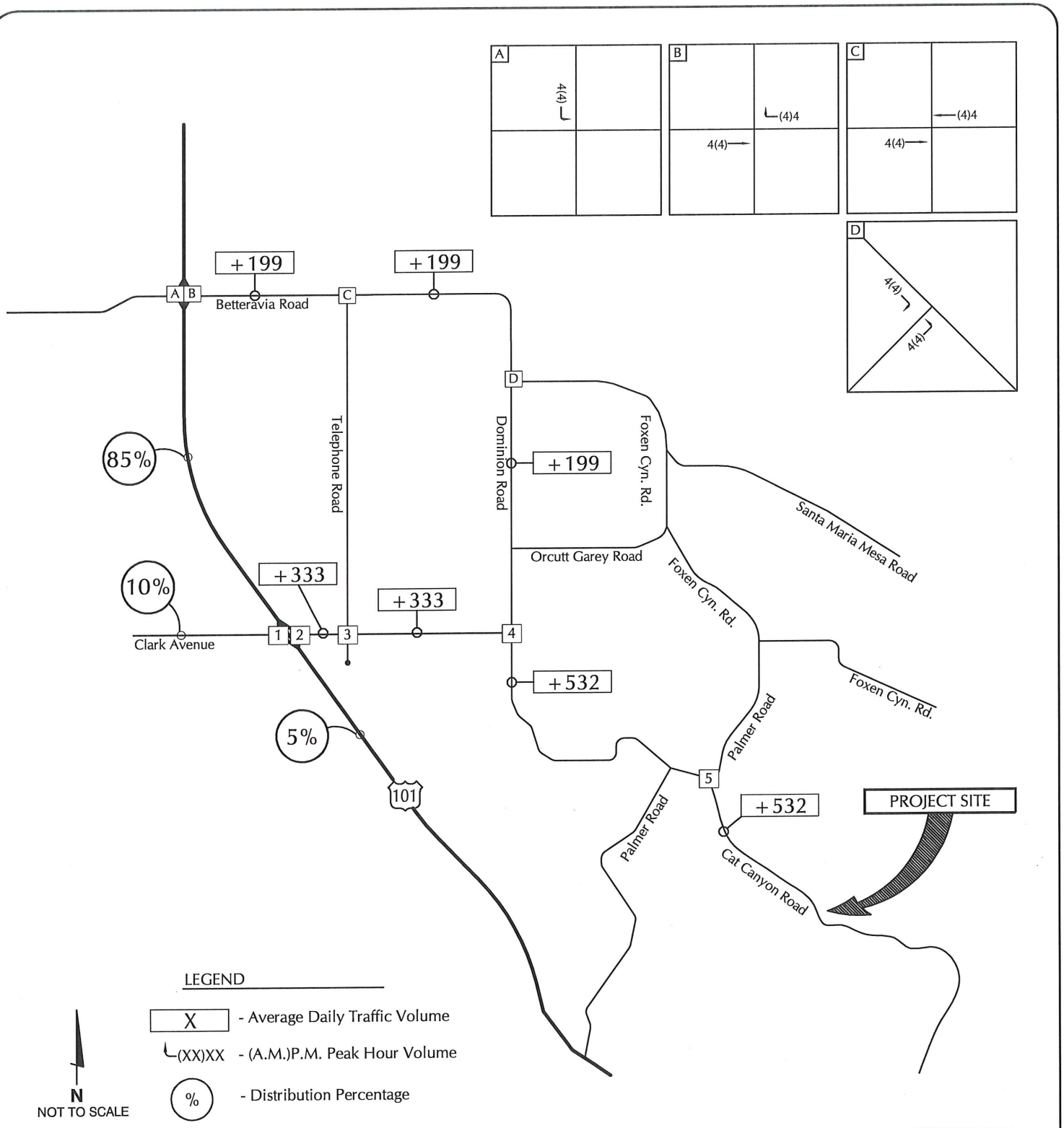
Origin/Destination	Direction	Percentage
U.S. 101(1)	North	85%
U.S. 101	South	5%
Clark Avenue	West	10%
Total		**100%**
(1) Tanker trucks would use U.S. 101/Betteravia Road interchange under Option 3A.		

Existing + Project Roadway Impacts – Option 3A

Table 23 compares the Existing and Existing + Project roadway levels of service and identifies project-specific impacts for Option 3A based on County thresholds.

Table 23
Existing + Project Roadway Operations – Option 3A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Existing	Existing + Project		
Clark Avenue e/o U.S. 101	5,180 / LOS A	5,513 / LOS A	333	No
Clark Avenue e/o Telephone Road	3,000 / LOS A	3,333 / LOS A	333	No
Dominion Road s/o Clark Avenue	1,050 / LOS A	1,582 / LOS A	532	No
Cat Canyon Road s/o Palmer Road	850 / LOS A	1,382 / LOS A	532	No
Betteravia Road e/o U.S. 101	10,250 / LOS A	10,449 / LOS A	199	No
Betteravia Road e/o Telephone Road	3,700 / LOS A	3,899 / LOS A	199	No
Dominion Road n/o Clark Avenue	1,400 / LOS A	1,599/ LOS A	199	No
NOTE: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.				



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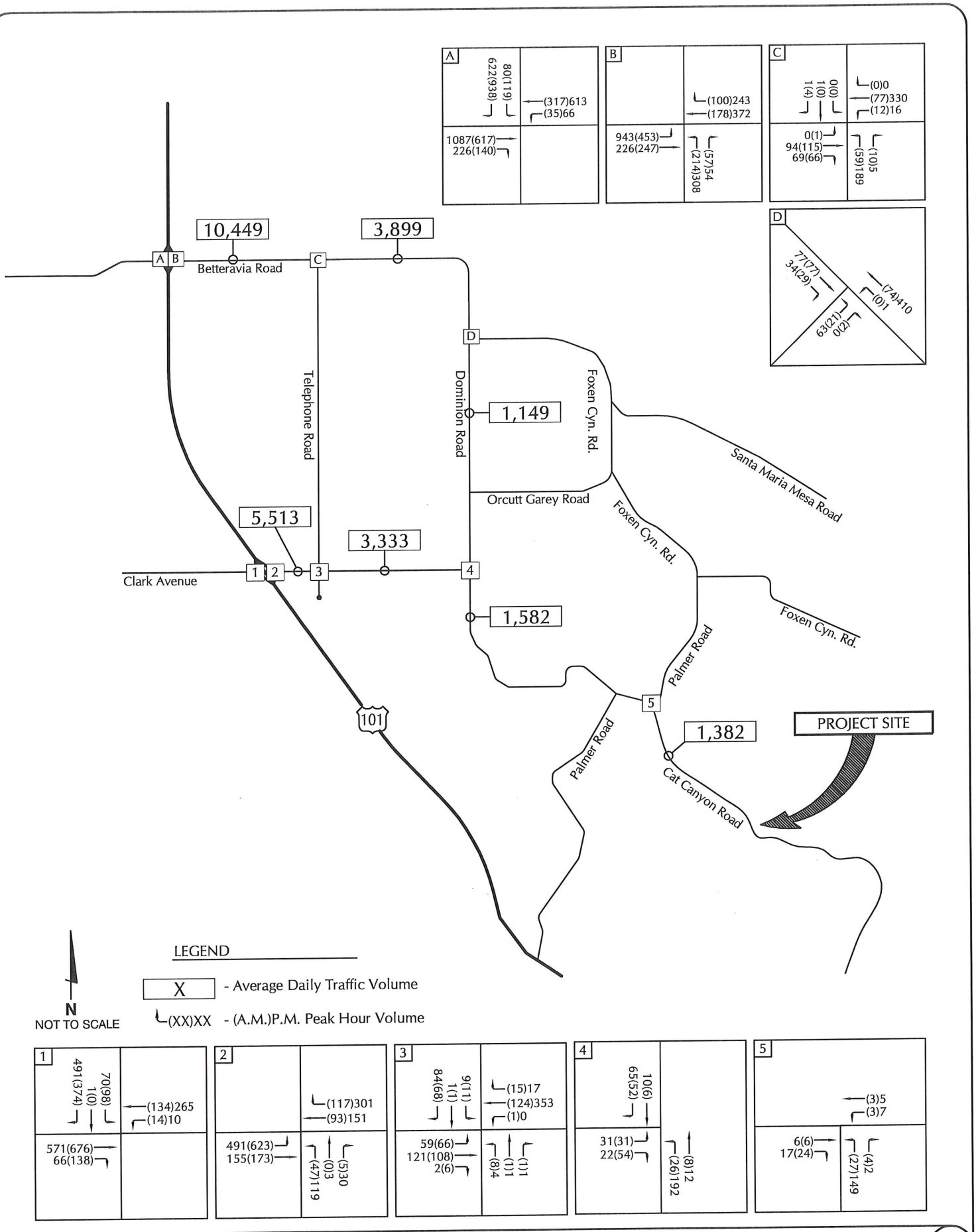
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT - OPTION 3A

FIGURE 21

MMF - #13079



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EXISTING + PROJECT TRAFFIC VOLUMES - OPTION 3A

FIGURE 22

MMF - #13079

As shown, the Project study-area roadways are forecast to continue to operate at LOS A with the addition of Project traffic under Option 3A, which meets the County's LOS C standard. Thus, the East Cat Canyon Oil Field Redevelopment Project would not generate project-specific roadway impacts under Option 3A.

Existing + Project Intersection Impacts – Option 3A

Tables 24 and 25 compare the Existing and Existing + Project intersection levels of service for Option 3A and identify project-specific impacts based on County thresholds.

As shown, the Project study-area intersections are forecast to operate at LOS C or better with Existing + Project traffic under Option 3A, which meets the County's LOS C standard. The East Cat Canyon Oil Field Redevelopment Project would not generate project-specific intersection impacts under Option 3A.

Table 24
Existing + Project A.M. Peak Hour Intersection Operations – Option 3A

Intersection	Existing		Existing + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	9.7 Sec.	LOS A	9.7 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	8.9 Sec.	LOS A	8.9 Sec.	LOS A	No
Dominion Road/Clark Avenue(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.6 Sec.	LOS A	8.6 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.48	LOS A	0.48	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.37	LOS A	0.37	LOS A	No
Telephone Road/Betteravia Road(1)	10.1 Sec.	LOS B	10.1 Sec.	LOS B	No
Dominion Road/Foxen Canyon Road(1)	9.4 Sec.	LOS A	9.5 Sec.	LOS A	No

NOTES: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

Table 25
Existing + Project P.M. Peak Hour Intersection Operations – Option 3A

Intersection	Existing		Existing + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	8.8 Sec.	LOS A	8.9 Sec.	LOS A	No
U.S. 101 NB Ramps/Clark Avenue(1)	9.1 Sec.	LOS A	8.5 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	9.8 Sec.	LOS A	10.3 Sec.	LOS B	No
Dominion Road/Clark Avenue(1)	8.1 Sec.	LOS A	8.3 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.8 Sec.	LOS A	9.2 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.59	LOS A	0.59	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.61	LOS B	0.61	LOS B	No
Telephone Road/Betteravia Road(1)	16.4 Sec.	LOS C	16.7 Sec.	LOS C	No
Dominion Road/Foxen Canyon Road(1)	12.7 Sec.	LOS B	12.8 Sec.	LOS B	No

NOTES: Existing + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

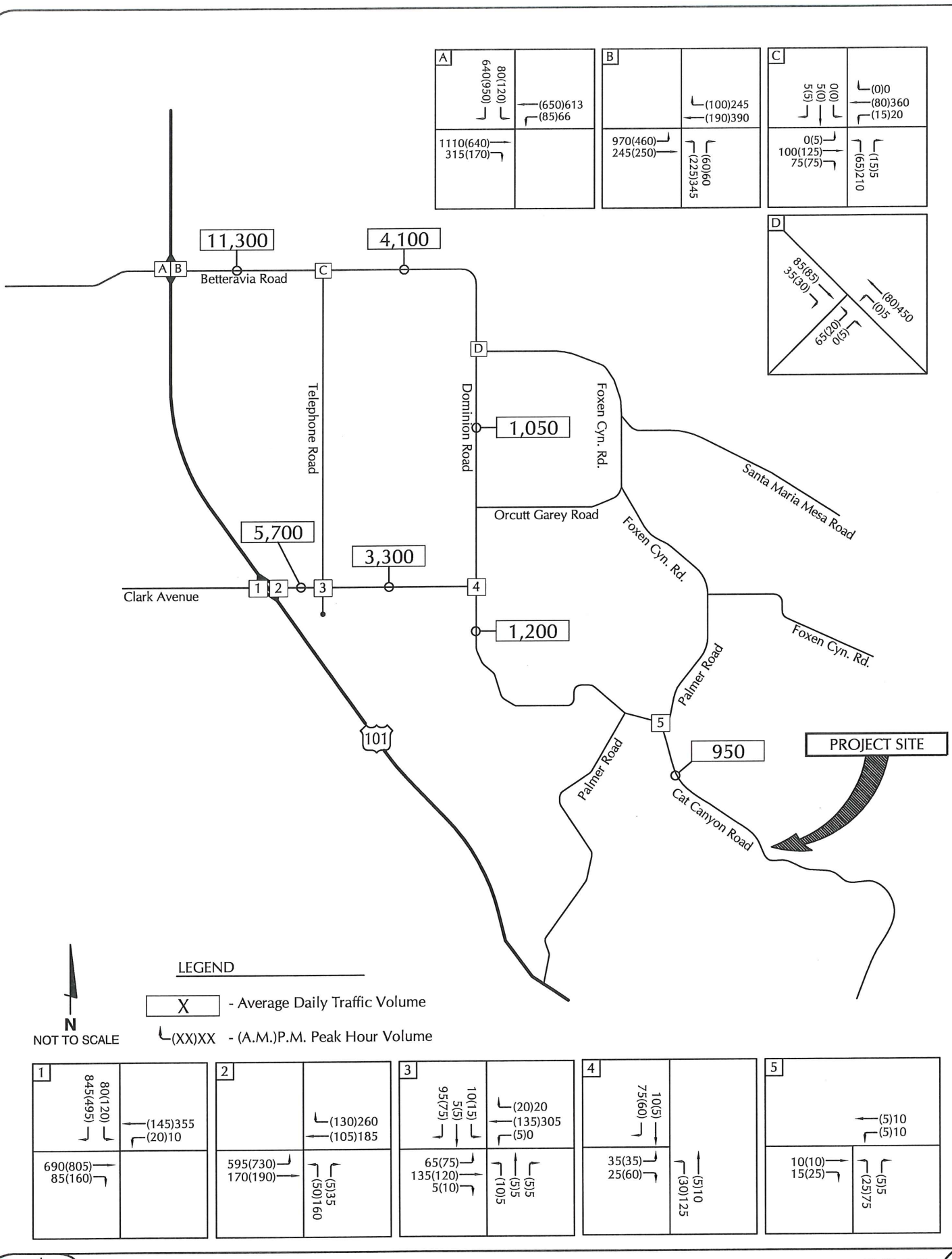
Cumulative + Project Roadway Impacts – Option 3A

Cumulative and Cumulative + Project traffic volumes for Option 3A are shown on Figures 23 and 24. Table 26 compares the Cumulative and Cumulative + Project roadway levels of service for Option 3A and identifies cumulative impacts based on County thresholds.

Table 26
Cumulative + Project Roadway Operations – Option 3A

Roadway Segment	ADT Volume / LOS		Project Added	Impact?
	Cumulative	Cumulative + Project		
Clark Avenue e/o U.S. 101	5,700 / LOS A	6,033/ LOS A	333	No
Clark Avenue e/o Telephone Road	3,300 / LOS A	3,633 / LOS A	333	No
Dominion Road s/o Clark Avenue	1,200 / LOS A	1,732 / LOS A	532	No
Cat Canyon Road s/o Palmer Road	950 / LOS A	1,482 / LOS A	532	No
Betteravia Road e/o U.S. 101	11,300 / LOS A	11,499/ LOS A	199	No
Betteravia Road e/o Telephone Road	4,100 / LOS A	4,299 / LOS A	199	No
Dominion Road n/o Clark Avenue	1,050 / LOS A	1,249 / LOS A	199	No

NOTE: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.



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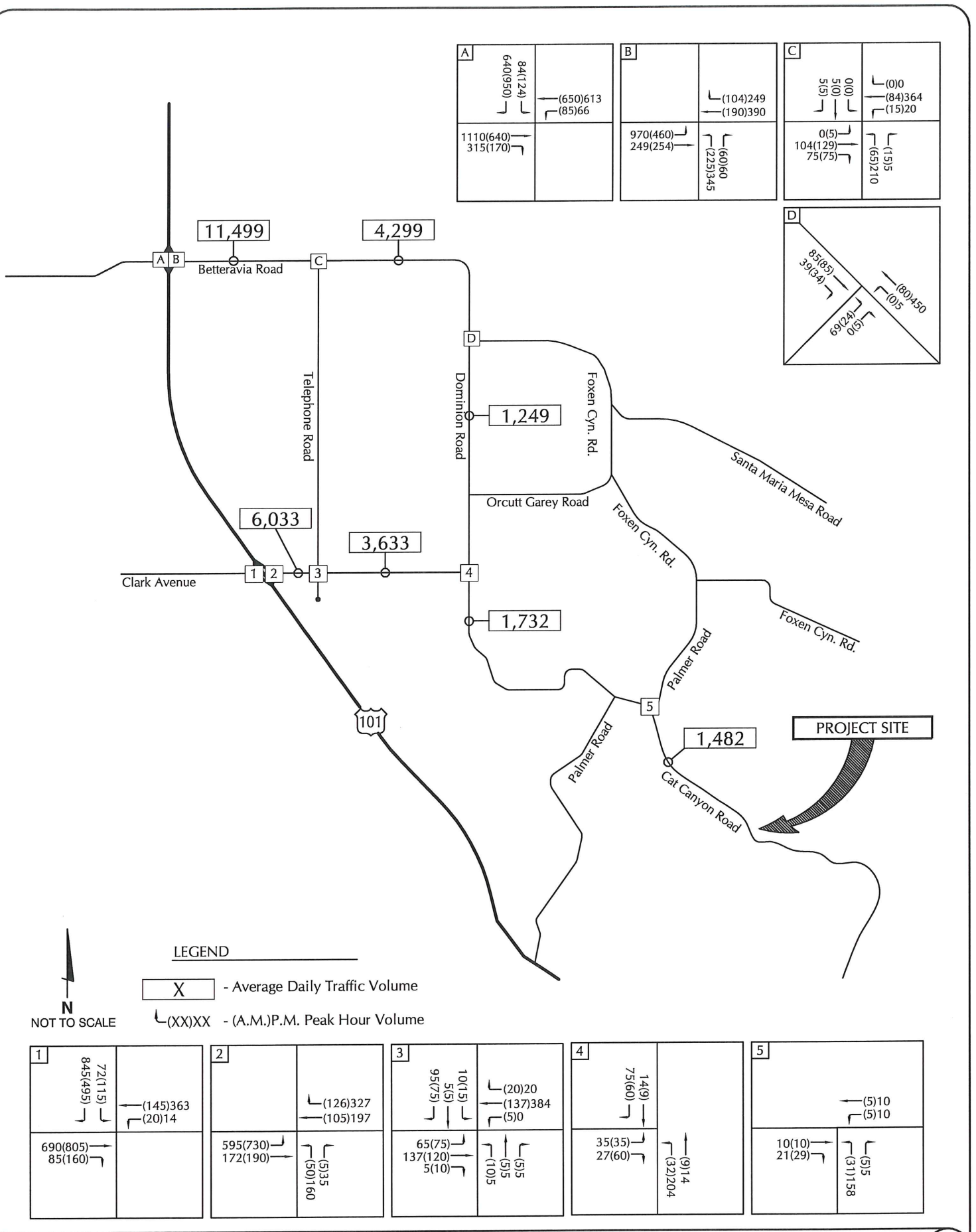
CUMULATIVE TRAFFIC VOLUMES - OPTION 3A

FIGURE 23

MMF - #13079



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CUMULATIVE + PROJECT TRAFFIC VOLUMES - OPTION 3A

FIGURE 24

MMF - #13079

As shown, the Project study-area roadways are forecast to operate at LOS A under Cumulative and Cumulative + Project conditions for Option 3A. Thus, the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative roadway impacts under Option 3A.

Cumulative + Project Intersection Impacts – Option 3A

Tables 27 and 28 compare the Cumulative and Cumulative + Project intersection levels of service for the Project study-area intersections for Option 3A and identify cumulative impacts based on County thresholds.

As shown, the Project study-area intersections are forecast to operate at LOS C or better under Cumulative + Project conditions for Option 3A, which meets the County's LOS C standard. Therefore, Option 3A for the East Cat Canyon Oil Field Redevelopment Project would not contribute to significant cumulative intersection impacts.

Table 27
Cumulative + Project A.M. Peak Hour Intersection Operations – Option 3A

Intersection	Cumulative		Cumulative + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	10.7 Sec.	LOS B	10.7 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue(1)	9.0 Sec.	LOS A	9.0 Sec.	LOS A	No
Telephone Road/Clark Avenue(1)	9.1 Sec.	LOS A	9.3 Sec.	LOS A	No
Dominion Road/Clark Avenue(1)	8.6 Sec.	LOS A	8.6 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.5 Sec.	LOS A	8.5 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.49	LOS A	0.49	LOS A	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.37	LOS A	0.37	LOS A	No
Telephone Road/Betteravia Road(1)	10.2 Sec.	LOS B	10.2 Sec.	LOS B	No
Dominion Road/Foxen Canyon Road(1)	9.5 Sec.	LOS A	9.6 Sec.	LOS A	No

NOTES: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

Table 28
Cumulative + Project P.M. Peak Hour Intersection Operations – Option 3A

Intersection	Cumulative		Cumulative + Project		Impact?
	ICU or Delay	LOS	ICU or Delay	LOS	
U.S. 101 SB Ramps/Clark Avenue(1)	10.3 Sec.	LOS B	10.4 Sec.	LOS B	No
U.S. 101 NB Ramps/Clark Avenue(1)	10.3 Sec.	LOS B	10.5 Sec.	LOS B	No
Telephone Road/Clark Avenue(1)	10.2 Sec.	LOS B	11.0 Sec.	LOS B	No
Dominion Road/Clark Avenue(1)	8.3 Sec.	LOS A	8.4 Sec.	LOS A	No
Palmer Road/Cat Canyon Road(1)	8.8 Sec.	LOS A	9.4 Sec.	LOS A	No
U.S. 101 SB Ramps/Betteravia Road(2)	0.61	LOS B	0.61	LOS B	No
U.S. 101 NB Ramps/Betteravia Road(2)	0.63	LOS B	0.63	LOS B	No
Telephone Road/Betteravia Road(1)	19.6 Sec.	LOS C	19.9 Sec.	LOS C	No
Dominion Road/Foxen Canyon Road	13.3 Sec.	LOS B	13.4 Sec.	LOS B	No

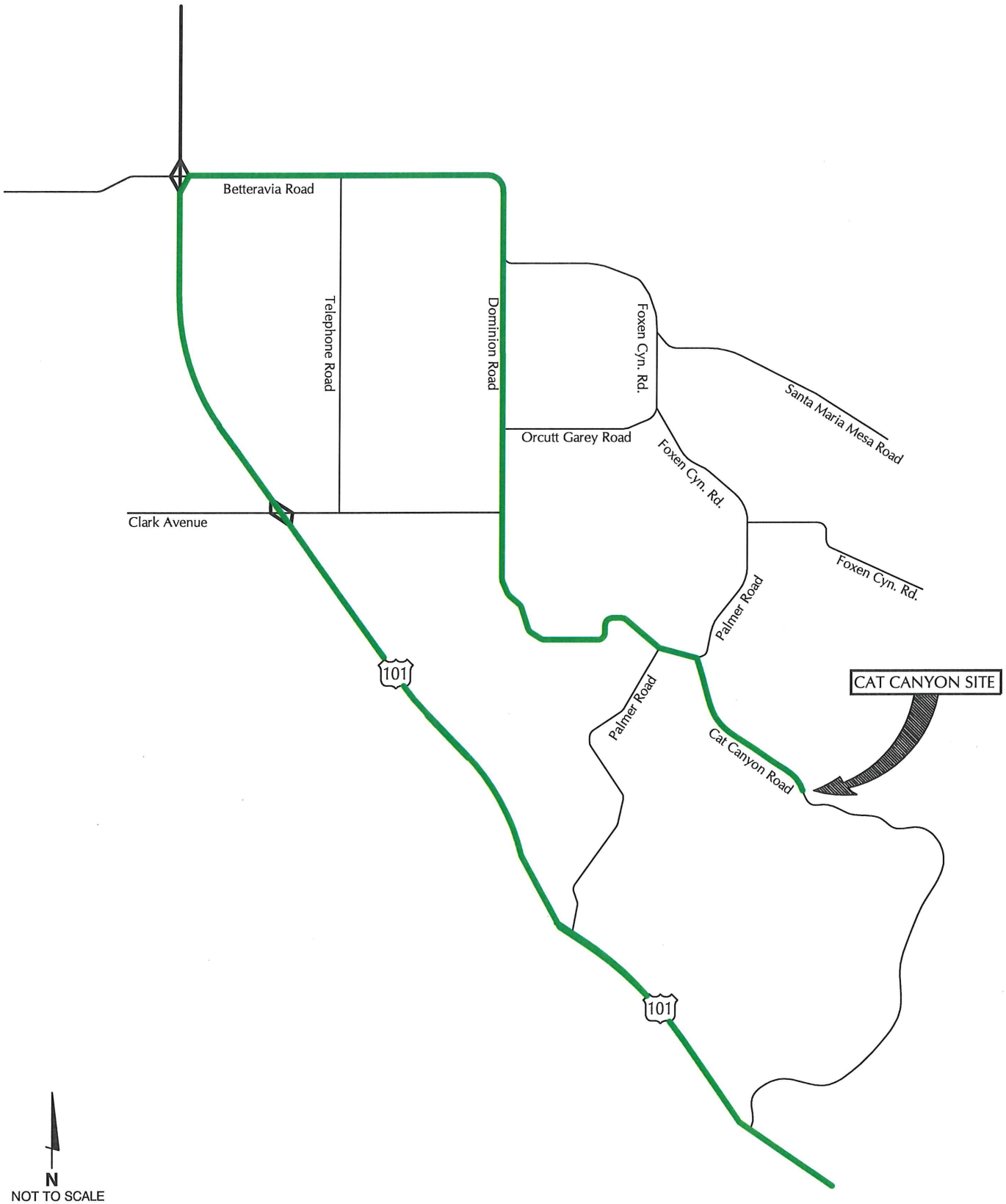
NOTES: Cumulative + Project forecasts include Project traffic for day-to-day operations + peak drilling phases.
(1) LOS based on average delay per vehicle in seconds pursuant to HCM procedures.
(2) LOS based on volume-to-capacity ratio pursuant to ICU procedures.

PROJECT IMPACTS – OPTION 3B

Option 3B is identical to Option 3A, except that the 99 trucks per day transporting light crude oil and produced crude oil would come from south of the Orcutt area. Figure 25 shows the route for tanker trucks under Option 3B. As shown, inbound trucks would travel on northbound U.S. 101 to Betteravia Road to Dominion Road to Palmer Road to Cat Canyon Road. Outbound trucks would use the same route in reverse.

Potential Impacts

The traffic analysis for Option 3A found that it would not generate project-specific or cumulative impacts to the Project study-area roadways and intersections. Thus, Option 3B also would not generate project-specific or cumulative impacts. The difference in Project traffic under Option 3B would be traffic added to U.S. 101 south of Clark Avenue. Option 3B would add eight peak hour trips to the segment of U.S. 101 south of the Clark Avenue interchange. This segment operates at LOS A during the A.M. and P.M. peak hours and would continue to operate at LOS A with the addition of the eight peak hour trips that would be added by Option 3B. Thus, Option 3B would not impact the segment of U.S. 101 south of Clark Avenue.



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OPTION 3B TRUCK ROUTE

FIGURE 25

MMF - #13079

SITE ACCESS – ALL OPTIONS

Site access is currently provided by a private portion of Long Canyon Road, which connects to Cat Canyon Road south of Palmer Road. Traffic volumes are relatively light on Cat Canyon Road in the vicinity of the connection (less than 500 ADT). Field observations found that the Cat Canyon Road/Long Canyon Road intersection operates at LOS A during the A.M. and P.M. peak periods. Given the relatively low volumes that would be generated by the Project (10 trips during the A.M. peak hour and 89 trips during the P.M. peak hour), the intersection is forecast to continue to operate at LOS A under Existing + Project conditions.

The sight distance looking to the south from Long Canyon Road is limited by a vertical curve on the roadway, a large oak tree, and several smaller scrub oak trees. A warning sign is located on Cat Canyon Road just south of the Long Canyon Road connection to inform drivers of trucks entering Cat Canyon Road from Long Canyon Road. The applicant is pursuing a new connection to Cat Canyon Road about 300 feet north of the existing Long Canyon Road connection to serve the Project site. The new connection is located in an area where Cat Canyon Road is relatively flat and straight. The sight distances at the connection are an improvement when compared to the existing Cat Canyon Road/Long Canyon Road intersection that currently serves the Project site. Given the relatively low volumes on Cat Canyon Road in the vicinity of the new connection, the new intersection is forecast to operate at LOS A during the A.M. and P.M. peak periods under Existing + Project conditions.

CONSTRUCTION IMPACTS – ALL OPTIONS

The project-specific and cumulative impact analyses presented above assume that traffic will be generated by construction and day- to day operations during peak drilling phases and throughout the life of the Project. The analysis found that the Project would not significantly impact the Project study-area roadways and intersections. Thus, the Project's construction phases would not result in significant traffic impacts.

CONGESTION MANAGEMENT PROGRAM ANALYSIS

The Santa Barbara County Association of Governments (SBCAG) has developed a set of traffic impact thresholds to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the Congestion Management Plan roadway system. The following guidelines were developed by SBCAG to determine the significance of project-generated traffic impacts on the regional Congestion Management Program system.

Impact Thresholds

1. For any roadway or intersection operating at "Level of Service" (LOS) A or B, a decrease of two levels of service resulting from the addition of project-generated traffic.

2. For any roadway or intersection operating at LOS C, project-added traffic that results in LOS D or worse.

3. For intersections within the Congestion Management Program system with existing congestion, the following table defines significant impacts.

Level of Service	Project-Added Peak Hour Trips
LOS D	20
LOS E	10
LOS F	10

4. For freeway or highway segments with existing congestion, the following table defines significant impacts.

Level of Service	Project-Added Peak Hour Trips
LOS D	100
LOS E	50
LOS F	50

Potential Impacts

Intersections. The U.S. 101 Northbound Ramps/Betteravia Road intersection and U.S. 101 Southbound Ramps/Betteravia Road intersection are part of the Congestion Management Program network. The traffic analysis found that these 2 intersections operate at LOS B or better during the A.M. and P.M. peak hour period under existing and cumulative conditions. Options 2A/2B and 3A/3B would add 4 to 8 trips to these 2 intersections during the A.M. and P.M. peak hour periods. These traffic addition would not degrade operations and would not generate significant impacts according to Congestion Management Program impact criteria.

U.S. 101. According to Congestion Management Program monitoring, the segment of U.S. 101 north of the Clark Avenue interchange operates at LOS B in the northbound direction and LOS A in the southbound direction during the peak hour period. The Project is forecast to add a maximum of 71 peak hour trips to northbound U.S. 101 and 6 peak hour trips to southbound U.S. 101. This segment of U.S. 101 would continue to operate at LOS B in the northbound direction and LOS A in the southbound direction with the addition of Project traffic. Thus, the Project would not significantly impact U.S. 101 north of the Clark Avenue interchange based on Congestion Management Program impact criteria.

According to Congestion Management Program monitoring, the segment of U.S. 101 south of the Clark Avenue interchange operates at LOS A in the northbound and southbound directions during the peak hour period. Options 1B, 2B, and 3B would add 4 peak hour trips to northbound U.S. 101 and 4 peak hour trips

to southbound U.S. 101 on this segment. U.S. 101 south of the Clark Avenue interchange would continue to operate at LOS A in the northbound and southbound directions with the additional of Project traffic. Thus, the Project would not significantly impact U.S. 101 south of the Clark Avenue interchange based on Congestion Management Program impact criteria.

STUDY PARTICIPANTS AND REFERENCES

Associated Transportation Engineers

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Dan Dawson, PTP, Supervising Transportation Planner
Matthew Farrington, Transportation Planner I

References

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TECHNICAL APPENDIX

CONTENTS:

LEVEL OF SERVICE DEFINITIONS

Signalized Intersection Level of Service Definitions

LOS	Delay[a]	V/C Ratio	Definition
A	< 10.0	< 0.60	Progression is extremely favorable. Most vehicles arrive during the green phase. Many vehicles do not stop at all.
B	10.1 - 20.0	0.61 - 0.70	Good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20.1 - 35.0	0.71 - 0.80	Only fair progression, longer cycle lengths, or both, result in higher cycle lengths. Cycle lengths may fail to serve queued vehicles, and overflow occurs. Number of vehicles stopped is significant, though many still pass through intersection without stopping.
D	35.1 - 55.0	0.81 - 0.90	Congestion becomes more noticeable. Unfavorable progression, long cycle lengths and high v/c ratios result in longer delays. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 - 80.0	0.91 - 1.00	High delay values indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent
F	> 80.0	> 1.00	Considered unacceptable for most drivers, this level occurs when arrival flow rates exceed the capacity of lane groups, resulting in many individual cycle failures. Poor progression and long cycle lengths may also contribute to high delay levels.

[a] Average control delay per vehicle in seconds.

Unsignalized Intersection Level of Service Definitions

The HCM[1] uses *control delay* to determine the level of service at unsignalized intersections. Control delay is the difference between the travel time actually experienced at the control device and the travel time that would occur in the absence of the traffic control device. Control delay includes deceleration from free flow speed, queue move-up time, stopped delay and acceleration back to free flow speed.

LOS	Control Delay Seconds per Vehicle
A	< 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	> 50.0

[1] Highway Capacity Manual, National Research Board, 2000

STANDARD ENGINEERING ROADWAY DESIGN CAPACITIES

SANTA BARBARA COUNTY PUBLIC WORKS DEPARTMENT
ROADWAY DESIGN CAPACITIES

TYPE OF ROADWAY	# OF LANES	LOS A		LOS B		LOS C		LOS D		LOS E	
		Low	High	Low	High	Low	High	Low	High	Low	High
Arterial	2 Lanes	8,100	12,000	9,400	14,000	10,800	16,000	12,100	18,000	13,500	20,000
Arterial	4 Lanes	16,100	23,900	18,900	27,900	21,600	31,900	24,300	35,900	27,000	39,900
Major	2 Lanes	6,500	9,600	7,500	11,200	8,600	12,800	9,700	14,400	10,800	16,000
Major	4 Lanes	12,900	19,200	15,100	22,300	17,200	25,500	19,400	28,700	21,600	31,900
Collector	- -	4,600	7,100	5,400	8,200	6,200	9,400	6,900	10,600	7,700	11,800

The roadway capacities listed above are "rule of thumb" figures only. Some factors which affect these capacities are intersections (numbers and configuration), degrees of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, level of truck and bus traffic and level of pedestrian and bicycle traffic.

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4

TRAFFIC COUNT DATA

Prepared by NDS/ATD

VOLUME

Clark Ave from Telephone Rd to Dominion Rd

Day: Wednesday
Date: 1/22/2014

City: Santa Maria
Project #: CA14_8010_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,445	1,527	2,972

AM Period	NB		SB		EB		WB		TOTAL	
00:00					0		2		2	
00:15					0		0		0	
00:30					2		1		3	
00:45					1	3	0	3	1	6
01:00					1		0		1	
01:15					1		0		1	
01:30					3		1		4	
01:45					0	5	0	1	0	6
02:00					0		2		2	
02:15					0		1		1	
02:30					0		2		2	
02:45					1	1	1	6	2	7
03:00					0		0		0	
03:15					3		1		4	
03:30					2		4		6	
03:45					2	7	1	6	3	13
04:00					1		1		2	
04:15					2		0		2	
04:30					5		2		7	
04:45					6	14	2	5	8	19
05:00					8		7		15	
05:15					12		6		18	
05:30					43		3		46	
05:45					28	91	3	19	31	110
06:00					25		8		33	
06:15					52		15		67	
06:30					69		11		80	
06:45					85	231	11	45	96	276
07:00					32		12		44	
07:15					28		32		60	
07:30					31		30		61	
07:45					34	125	34	108	68	233
08:00					40		31		71	
08:15					25		30		55	
08:30					23		28		51	
08:45					23	111	29	118	52	229
09:00					20		25		45	
09:15					17		16		33	
09:30					23		14		37	
09:45					19	79	23	78	42	157
10:00					19		21		40	
10:15					13		12		25	
10:30					12		15		27	
10:45					16	60	30	78	46	138
11:00					25		20		45	
11:15					27		22		49	
11:30					21		13		34	
11:45					15	88	22	77	37	165
TOTALS						815		544		1359
SPLIT %						60.0%		40.0%		45.7%

PM Period	NB		SB		EB		WB		TOTAL	
12:00					17		27		44	
12:15					15		25		40	
12:30					20		22		42	
12:45					23	75	19	93	42	168
13:00					14		17		31	
13:15					24		17		41	
13:30					18		13		31	
13:45					11	67	20	67	31	134
14:00					22		27		49	
14:15					20		13		33	
14:30					24		31		55	
14:45					18	84	21	92	39	176
15:00					28		36		64	
15:15					15		27		42	
15:30					17		52		69	
15:45					16	76	46	161	62	237
16:00					12		45		57	
16:15					26		38		64	
16:30					36		81		117	
16:45					26	100	55	219	81	319
17:00					29		80		109	
17:15					22		62		84	
17:30					34		47		81	
17:45					19	104	38	227	57	331
18:00					11		11		22	
18:15					12		17		29	
18:30					8		12		20	
18:45					14	45	7	47	21	92
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19:30					7		11		18	
19:45					6	28	4	32	10	60
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21:30					3		1		4	
21:45					5	11	5	10	10	21
22:00					4		0		4	
22:15					1		1		2	
22:30					1		2		3	
22:45					1	7	0	3	1	10
23:00					2		0		2	
23:15					2		2		4	
23:30					3		0		3	
23:45					1	8	2	4	3	12
TOTALS						630		983		1613
SPLIT %						39.1%		60.9%		54.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,445	1,527	2,972

AM Peak Hour	06:15	07:15	06:15
AM Pk Volume	238	127	287
Pk Hr Factor	0.700	0.934	0.747
7 - 9 Volume	236	226	462
7 - 9 Peak Hour	07:15	07:15	07:15
7 - 9 Pk Volume	133	127	260
Pk Hr Factor	0.831	0.934	0.915

PM Peak Hour	16:15	16:30	16:30
PM Pk Volume	117	278	391
Pk Hr Factor	0.813	0.858	0.835
4 - 6 Volume	204	446	650
4 - 6 Peak Hour	16:15	16:30	16:30
4 - 6 Pk Volume	117	278	391
Pk Hr Factor	0.813	0.858	0.835

Prepared by NDS/ATD

VOLUME

Dominion Rd from Clark Ave to Palmer Rd

Day: Wednesday
Date: 1/22/2014

City: Santa Maria
Project #: CA14_8010_005

DAILY TOTALS	NB	SB	EB	WB	Total
	523	517	0	0	1,040

AM Period	NB		SB		EB	WB	TOTAL	
00:00	2		0				2	
00:15	0		1				1	
00:30	1		3				4	
00:45	0	3	1	5			1	8
01:00	0		0				0	
01:15	2		1				3	
01:30	0		4				4	
01:45	1	3	1	6			2	9
02:00	2		2				4	
02:15	1		0				1	
02:30	2		1				3	
02:45	1	6	2	5			3	11
03:00	1		0				1	
03:15	1		1				2	
03:30	2		0				2	
03:45	1	5	4	5			5	10
04:00	0		0				0	
04:15	0		1				1	
04:30	2		3				5	
04:45	0	2	4	8			4	10
05:00	3		6				9	
05:15	0		9				9	
05:30	2		22				24	
05:45	0	5	15	52			15	57
06:00	2		18				20	
06:15	8		29				37	
06:30	3		37				40	
06:45	4	17	26	110			30	127
07:00	3		10				13	
07:15	3		13				16	
07:30	7		17				24	
07:45	5	18	10	50			15	68
08:00	8		11				19	
08:15	14		12				26	
08:30	5		3				8	
08:45	7	34	10	36			17	70
09:00	8		7				15	
09:15	2		4				6	
09:30	2		2				4	
09:45	6	18	4	17			10	35
10:00	7		9				16	
10:15	4		1				5	
10:30	7		3				10	
10:45	9	27	4	17			13	44
11:00	7		7				14	
11:15	7		11				18	
11:30	3		5				8	
11:45	7	24	5	28			12	52
TOTALS		162		339				501
SPLIT %		32.3%		67.7%				48.2%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	7		3				10	
12:15	13		9				22	
12:30	10		5				15	
12:45	5	35	13	30			18	65
13:00	5		4				9	
13:15	4		14				18	
13:30	10		3				13	
13:45	8	27	5	26			13	53
14:00	6		4				10	
14:15	4		5				9	
14:30	10		4				14	
14:45	1	21	4	17			5	38
15:00	13		7				20	
15:15	16		3				19	
15:30	49		5				54	
15:45	19	97	5	20			24	117
16:00	18		5				23	
16:15	10		7				17	
16:30	22		5				27	
16:45	19	69	6	23			25	92
17:00	26		5				31	
17:15	25		5				30	
17:30	11		3				14	
17:45	6	68	1	14			7	82
18:00	1		9				10	
18:15	7		5				12	
18:30	4		2				6	
18:45	1	13	4	20			5	33
19:00	4		3				7	
19:15	0		2				2	
19:30	5		2				7	
19:45	4	13	0	7			4	20
20:00	0		0				0	
20:15	2		2				4	
20:30	3		1				4	
20:45	2	7	4	7			6	14
21:00	1		4				5	
21:15	0		0				0	
21:30	1		0				1	
21:45	2	4	4	8			6	12
22:00	0		1				1	
22:15	0		1				1	
22:30	2		1				3	
22:45	0	2	0	3			0	5
23:00	0		0				0	
23:15	1		1				2	
23:30	0		0				0	
23:45	4	5	2	3			6	8
TOTALS		361		178				539
SPLIT %		67.0%		33.0%				51.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	523	517	0	0	1,040

AM Peak Hour	11:45	06:00	06:00
AM Pk Volume	37	110	127
Pk Hr Factor	0.712	0.743	0.794
7 - 9 Volume	52	86	138
7 - 9 Peak Hour	07:30	07:15	07:30
7 - 9 Pk Volume	34	51	84
Pk Hr Factor	0.607	0.750	0.808

PM Peak Hour	15:15	12:30	15:15
PM Pk Volume	102	36	120
Pk Hr Factor	0.520	0.643	0.556
4 - 6 Volume	137	37	174
4 - 6 Peak Hour	16:30	16:00	16:30
4 - 6 Pk Volume	92	23	113
Pk Hr Factor	0.885	0.821	0.911

Prepared by NDS/ATD

VOLUME

Cat Cyn Rd from Palmer Rd to Site

Day: Wednesday
Date: 1/22/2014

City: Santa Maria
Project #: CA14_8010_006

DAILY TOTALS	NB	SB	EB	WB	Total
	458	405	0	0	863

AM Period	NB		SB		EB	WB	TOTAL	
00:00	3		0				3	
00:15	0		0				0	
00:30	0		0				0	
00:45	0	3	0				0	3
01:00	0		3				3	
01:15	3		1				4	
01:30	0		1				1	
01:45	2	5	0	5			2	10
02:00	0		0				0	
02:15	3		0				3	
02:30	0		0				0	
02:45	2	5	1	1			3	6
03:00	0		0				0	
03:15	0		0				0	
03:30	3		0				3	
03:45	0	3	4	4			4	7
04:00	0		1				1	
04:15	0		0				0	
04:30	4		3				7	
04:45	0	4	1	5			1	9
05:00	3		5				8	
05:15	2		6				8	
05:30	3		15				18	
05:45	3	11	24	50			27	61
06:00	3		10				13	
06:15	5		32				37	
06:30	6		27				33	
06:45	4	18	41	110			45	128
07:00	8		5				13	
07:15	5		8				13	
07:30	4		6				10	
07:45	3	20	6	25			9	45
08:00	6		7				13	
08:15	9		5				14	
08:30	4		5				9	
08:45	4	23	6	23			10	46
09:00	5		6				11	
09:15	2		7				9	
09:30	4		4				8	
09:45	13	24	2	19			15	43
10:00	1		1				2	
10:15	3		4				7	
10:30	5		2				7	
10:45	1	10	3	10			4	20
11:00	4		6				10	
11:15	13		11				24	
11:30	11		4				15	
11:45	11	39	7	28			18	67
TOTALS		165		280				445
SPLIT %		37.1%		62.9%				51.6%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	5		5				10	
12:15	6		4				10	
12:30	9		2				11	
12:45	0	20	2	13			2	33
13:00	6		10				16	
13:15	8		12				20	
13:30	5		3				8	
13:45	3	22	2	27			5	49
14:00	3		7				10	
14:15	8		6				14	
14:30	7		5				12	
14:45	7	25	1	19			8	44
15:00	9		2				11	
15:15	15		3				18	
15:30	33		7				40	
15:45	19	76	0	12			19	88
16:00	14		1				15	
16:15	7		2				9	
16:30	12		9				21	
16:45	17	50	2	14			19	64
17:00	23		5				28	
17:15	15		5				20	
17:30	10		0				10	
17:45	2	50	1	11			3	61
18:00	2		4				6	
18:15	7		2				9	
18:30	3		1				4	
18:45	4	16	3	10			7	26
19:00	5		0				5	
19:15	3		2				5	
19:30	2		0				2	
19:45	2	12	1	3			3	15
20:00	1		0				1	
20:15	3		1				4	
20:30	2		2				4	
20:45	3	9	0	3			3	12
21:00	0		2				2	
21:15	1		0				1	
21:30	1		0				1	
21:45	2	4	3	5			5	9
22:00	0		2				2	
22:15	0		4				4	
22:30	3		0				3	
22:45	0	3	0	6			0	9
23:00	2		0				2	
23:15	0		2				2	
23:30	3		0				3	
23:45	1	6	0	2			1	8
TOTALS		293		125				418
SPLIT %		70.1%		29.9%				48.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	458	405	0	0	863

AM Peak Hour	11:15	06:00	06:00
AM Pk Volume	40	110	128
Pk Hr Factor	0.769	0.671	0.711
7 - 9 Volume	43	48	91
7 - 9 Peak Hour	08:00	07:15	07:30
7 - 9 Pk Volume	23	27	46
Pk Hr Factor	0.639	0.844	0.821

PM Peak Hour	15:15	12:45	15:15
PM Pk Volume	81	27	92
Pk Hr Factor	0.614	0.563	0.575
4 - 6 Volume	100	25	125
4 - 6 Peak Hour	16:30	16:30	16:30
4 - 6 Pk Volume	67	21	88
Pk Hr Factor	0.728	0.583	0.786

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

US-101 SB Ramps and Clark Ave , Orcutt

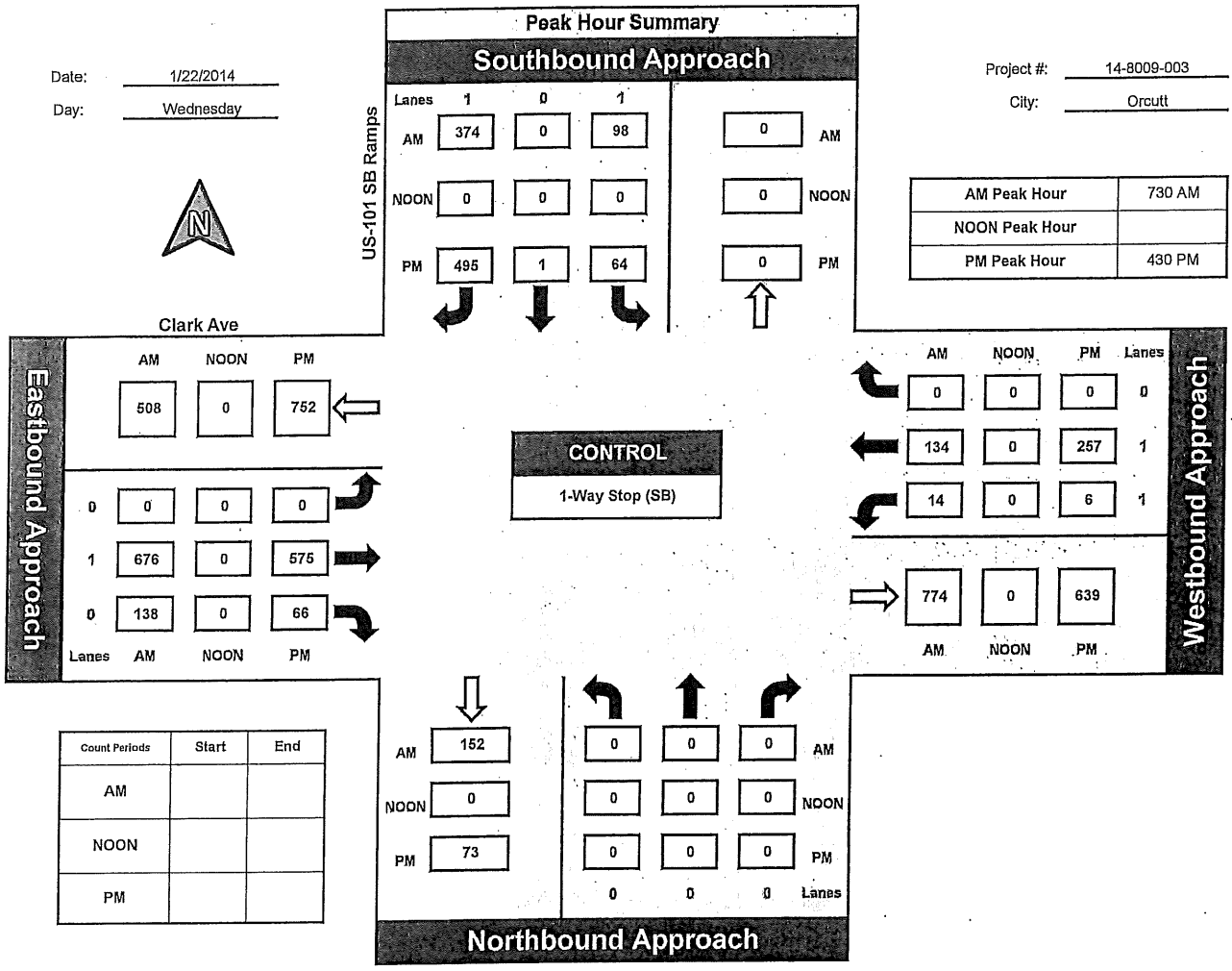
Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-003

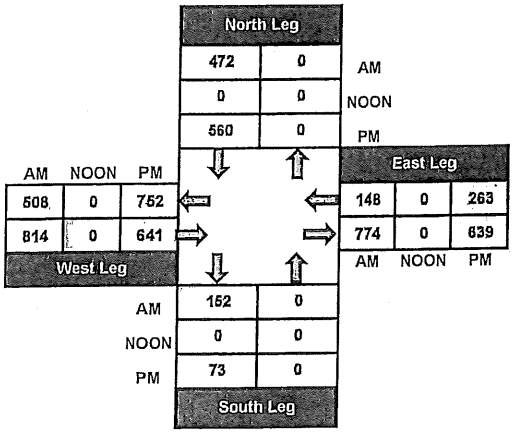
City: Orcutt

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

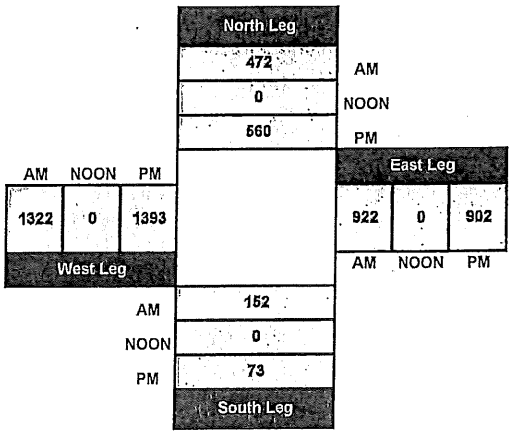


Count Periods	Start	End
AM		
NOON		
PM		

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

US-101 NB Ramps and Clark Ave , Orcutt

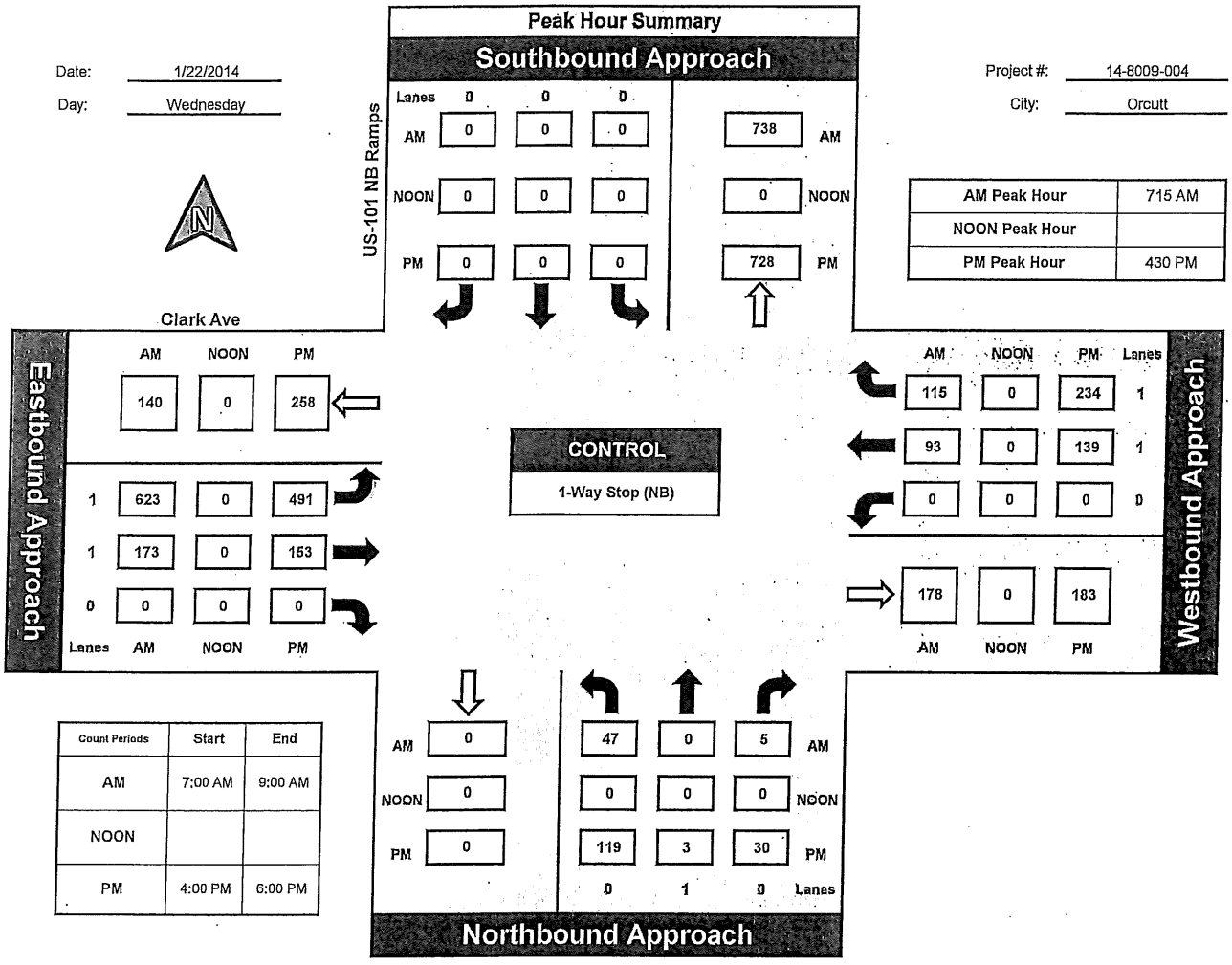
Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-004

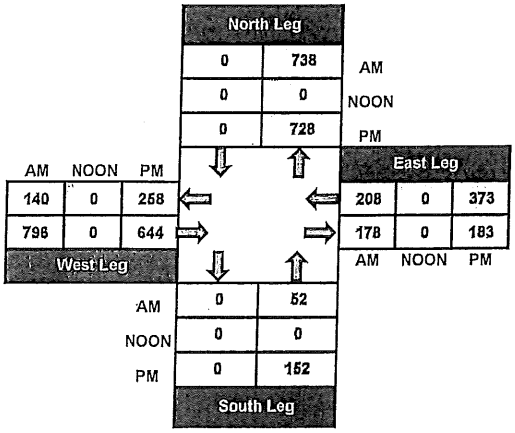
City: Orcutt

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	430 PM

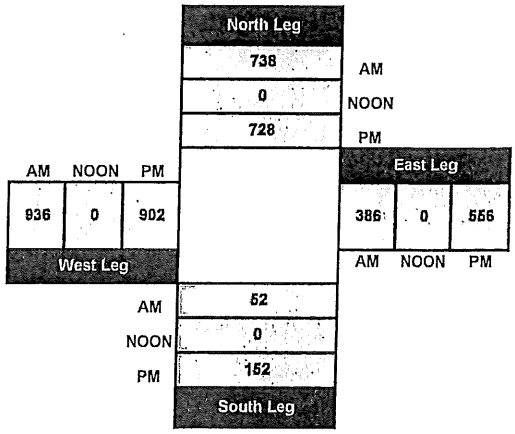


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Telephone Rd and Clark Ave , Santa Maria

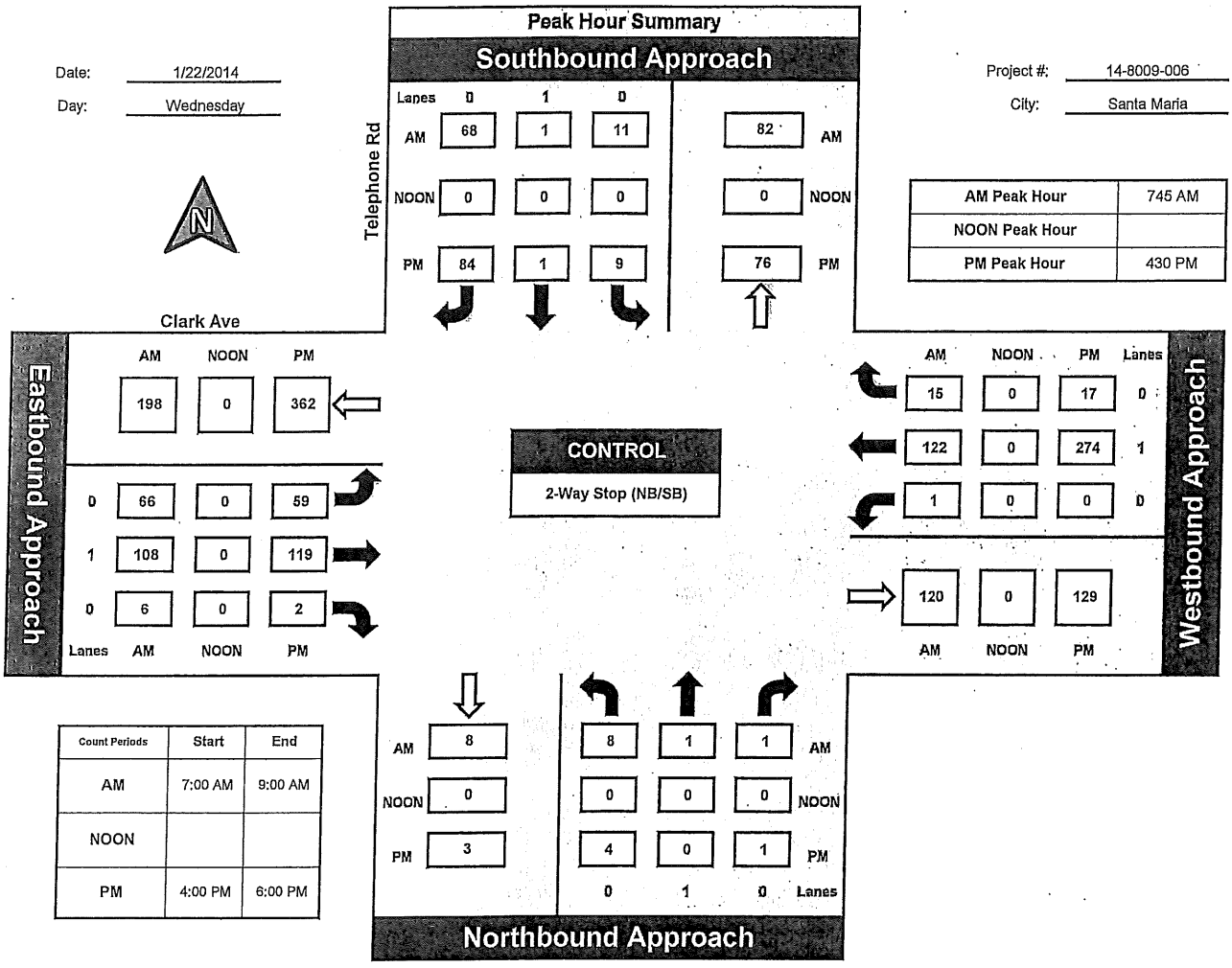
Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-006

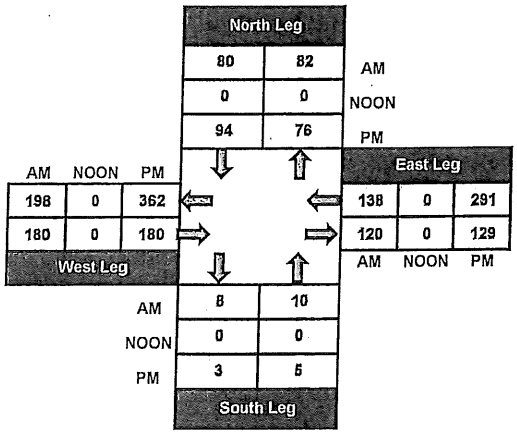
City: Santa Maria

AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	430 PM

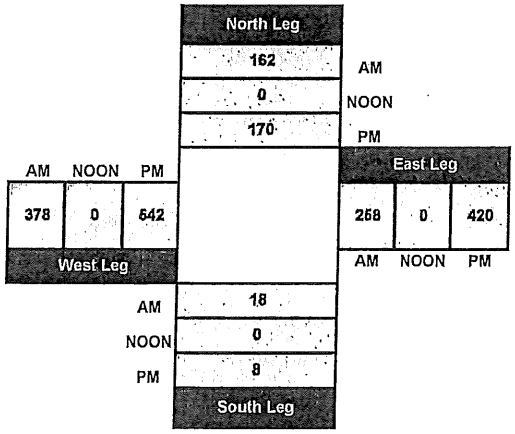


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

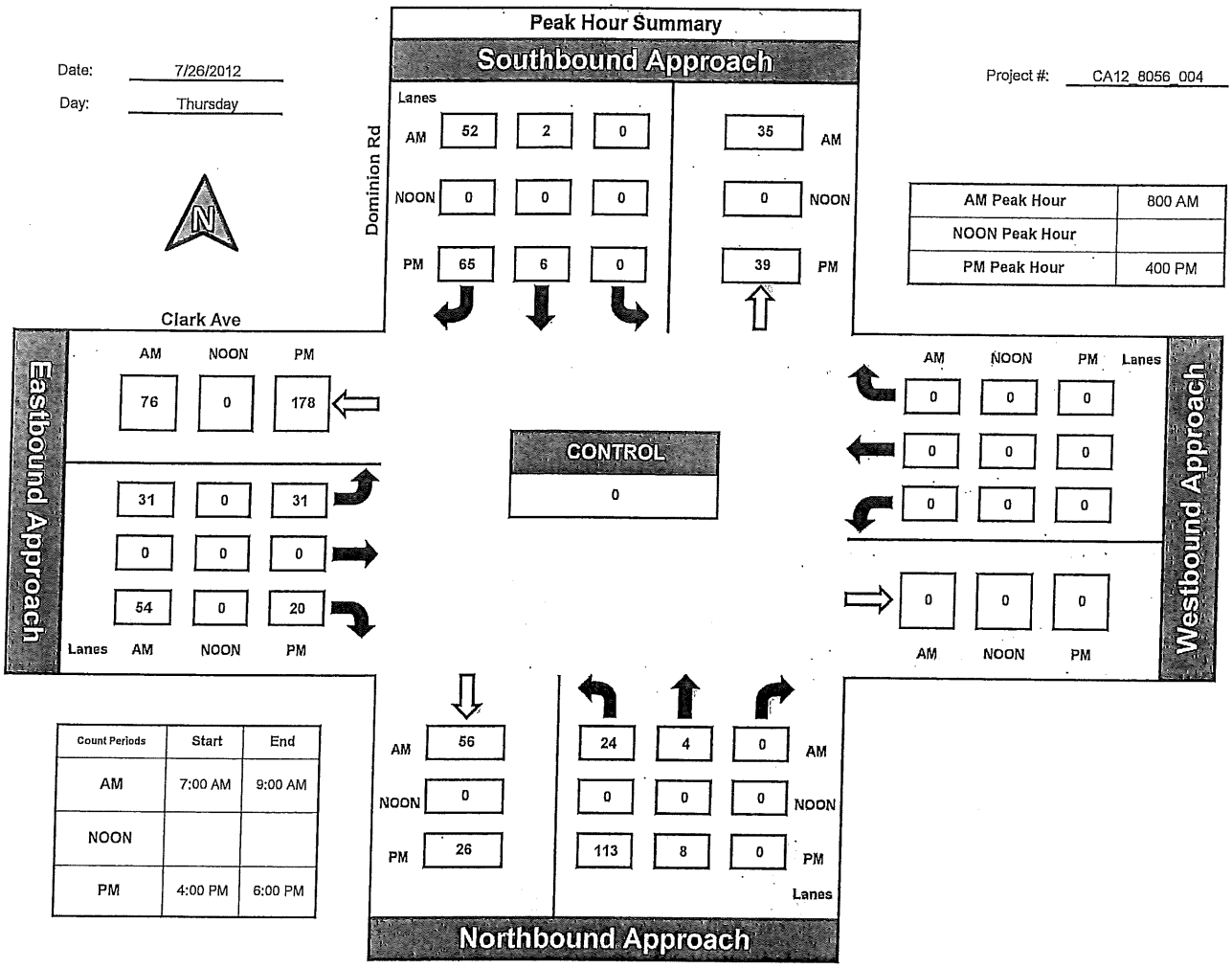
National Data & Surveying Services

Dominion Rd and Clark Ave , City of Santa Maria

Date: 7/26/2012

Day: Thursday

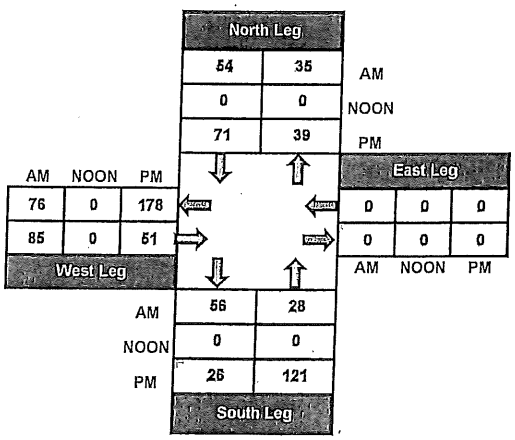
Project #: CA12_8056_004



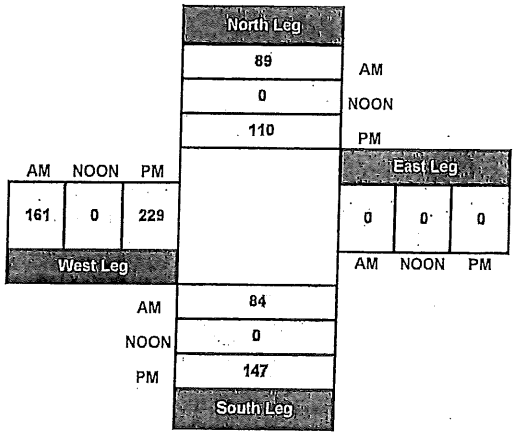
AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	400 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Cat Cyn Rd and Palmer Rd , Santa Maria

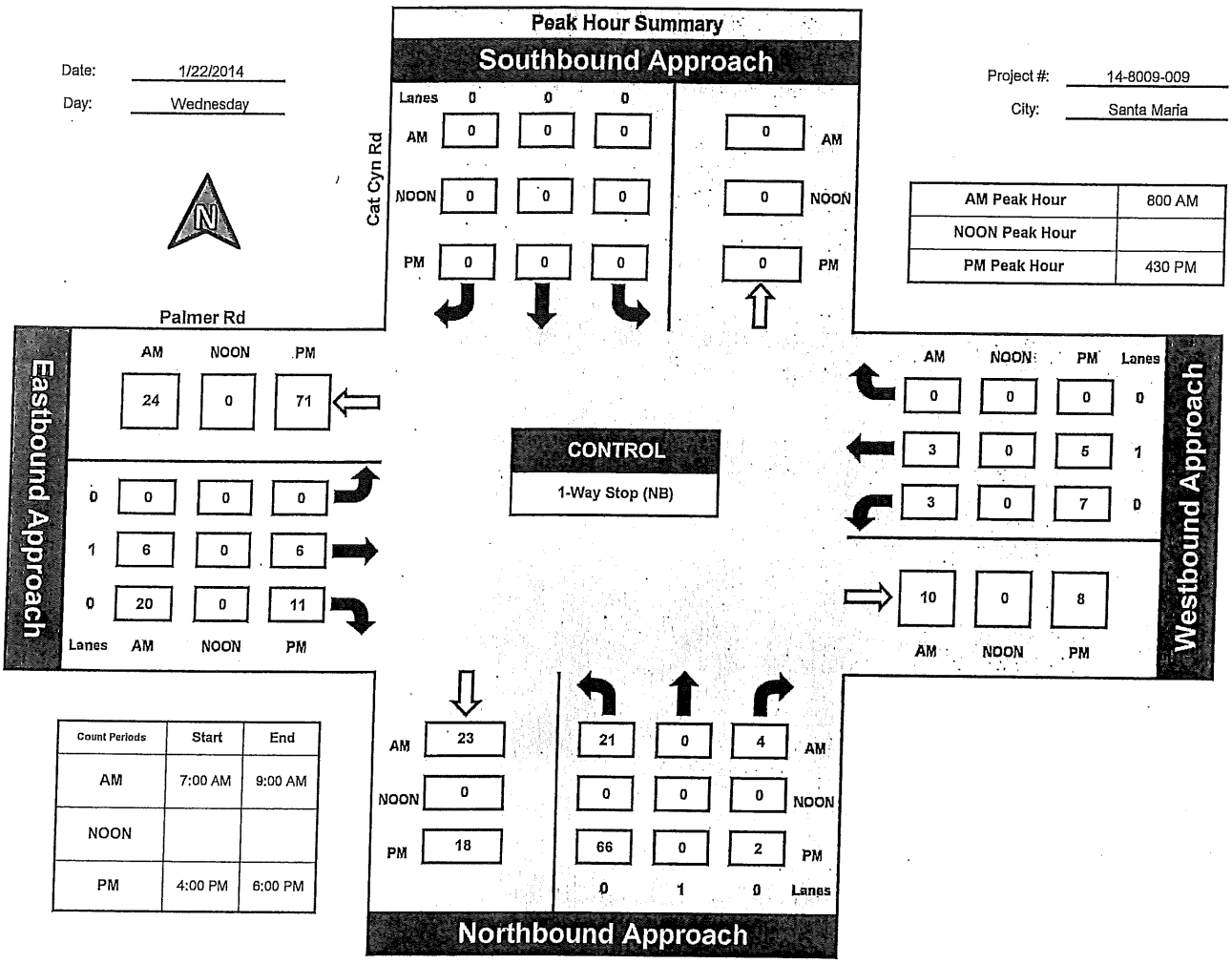
Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-009

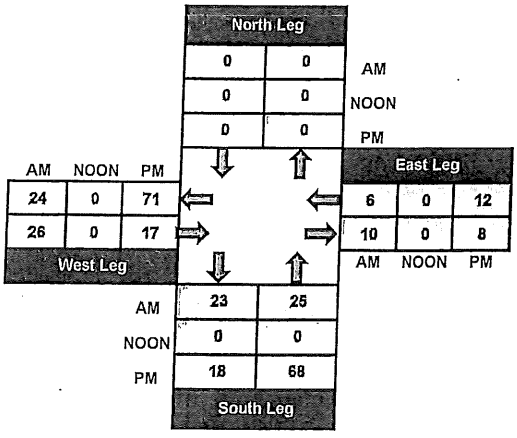
City: Santa Maria

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	430 PM

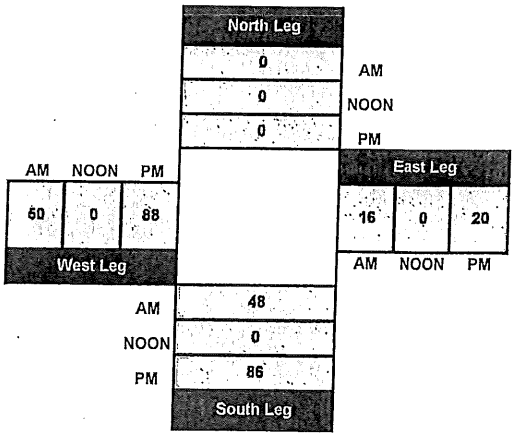


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Prepared by NDS/ATD

VOLUME

Telephone Rd from Foxen Cyn Rd to Clark Ave

Day: Wednesday
Date: 1/22/2014

City: Santa Maria
Project #: CA14_8010_003

DAILY TOTALS	NB	SB	EB	WB	Total
	641	713	0	0	1,354

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		1						1	
00:15	0		0						0	
00:30	1		0						1	
00:45	0	1	0	1					0	2
01:00	1		0						1	
01:15	0		0						0	
01:30	0		1						1	
01:45	0	1	1	2					1	3
02:00	1		2						3	
02:15	0		0						0	
02:30	0		0						0	
02:45	0	1	0	2					0	3
03:00	0		0						0	
03:15	0		0						0	
03:30	1		0						1	
03:45	0	1	0						0	1
04:00	0		0						0	
04:15	0		1						1	
04:30	0		0						0	
04:45	0		0	1					0	1
05:00	1		0						1	
05:15	1		0						1	
05:30	0		1						1	
05:45	0	2	2	3					2	5
06:00	5		4						9	
06:15	10		12						22	
06:30	6		19						25	
06:45	11	32	13	48					24	80
07:00	5		13						18	
07:15	7		13						20	
07:30	7		38						45	
07:45	19	38	20	84					39	122
08:00	30		9						39	
08:15	10		20						30	
08:30	11		13						24	
08:45	21	72	32	74					53	146
09:00	11		8						19	
09:15	9		13						22	
09:30	9		14						23	
09:45	14	43	9	44					23	87
10:00	10		7						17	
10:15	6		10						16	
10:30	8		10						18	
10:45	9	33	6	33					15	66
11:00	3		17						20	
11:15	9		5						14	
11:30	7		12						19	
11:45	12	31	12	46					24	77
TOTALS		255		338						593
SPLIT %		43.0%		57.0%						43.8%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	8		5						13	
12:15	14		12						26	
12:30	14		3						17	
12:45	7	43	9	29					16	72
13:00	9		10						19	
13:15	8		8						16	
13:30	10		9						19	
13:45	9	36	10	37					19	73
14:00	11		8						19	
14:15	11		11						22	
14:30	12		10						22	
14:45	7	41	10	39					17	80
15:00	12		9						21	
15:15	15		8						23	
15:30	13		12						25	
15:45	11	51	14	43					25	94
16:00	6		18						24	
16:15	30		29						59	
16:30	26		20						46	
16:45	25	87	26	93					51	180
17:00	15		16						31	
17:15	17		29						46	
17:30	11		5						16	
17:45	29	72	21	71					50	143
18:00	3		5						8	
18:15	11		9						20	
18:30	5		7						12	
18:45	6	25	4	25					10	50
19:00	9		1						10	
19:15	1		3						4	
19:30	5		7						12	
19:45	1	16	5	16					6	32
20:00	0		1						1	
20:15	1		4						5	
20:30	3		0						3	
20:45	1	5	0	5					1	10
21:00	2		3						5	
21:15	0		7						7	
21:30	2		2						4	
21:45	3	7	2	14					5	21
22:00	1		2						3	
22:15	1		0						1	
22:30	0		1						1	
22:45	1	3	0	3					1	6
23:00	0		0						0	
23:15	0		0						0	
23:30	0		0						0	
23:45	0		0						0	
TOTALS		386		375						761
SPLIT %		50.7%		49.3%						56.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	641	713	0	0	1,354

AM Peak Hour	08:00	07:30	07:30
AM Pk Volume	72	87	153
Pk Hr Factor	0.600	0.572	0.850
7 - 9 Volume	110	158	268
7 - 9 Peak Hour	08:00	07:30	07:30
7 - 9 Pk Volume	72	87	153
Pk Hr Factor	0.600	0.572	0.850

PM Peak Hour	16:15	16:00	16:15
PM Pk Volume	96	93	187
Pk Hr Factor	0.800	0.802	0.792
4 - 6 Volume	159	164	323
4 - 6 Peak Hour	16:15	16:00	16:15
4 - 6 Pk Volume	96	93	187
Pk Hr Factor	0.800	0.802	0.792

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

US-101 SB Ramps and Betteravia Rd , Santa Maria

Peak Hour Summary

Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-001

City: Santa Maria

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Southbound Approach (US-101 SB Ramps)

Lanes	1.3	0.3	1.3	
AM	938	0	115	0 AM
NOON	0	0	0	0 NOON
PM	622	0	76	0 PM

Eastbound Approach (Betteravia Rd)

Lanes	AM	NOON	PM
	1255	0	1235
0	0	0	0
2	617	0	1087
1	140	0	226

Westbound Approach

Lanes	AM	NOON	PM
0	0	0	0
2	317	0	613
1	35	0	66
	732	0	1163

CONTROL: Signalized

Count Periods	Start	End
AM		
NOON		
PM		

Northbound Approach

AM	175	0	0	0 AM
NOON	0	0	0	0 NOON
PM	292	0	0	0 PM
		0	0	0 Lanes

Total Ins & Outs

	North Leg		
AM	1053	0	AM
NOON	0	0	NOON
PM	698	0	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1255	0	1235		352	0	679
757	0	1313		732	0	1163

	South Leg	
AM	175	0
NOON	0	0
PM	292	0

Total Volume Per Leg

	North Leg
AM	1053
NOON	0
PM	698

West Leg			East Leg		
AM	NOON	PM	AM	NOON	PM
2012	0	2548	1084	0	1842

	South Leg
AM	175
NOON	0
PM	292

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

US-101 SB Ramps and Betteravia Rd , Santa Maria

Date: 1/22/2014

Day: Wednesday

Project #: 14-8009 RTOR-001

City: Santa Maria

28%

42%

US-101 SB Ramps

Betteravia Rd

Peak Hour Summary

	AM Peak Hour	NOON Peak Hour	PM Peak Hour
	715 AM		500 PM

Southbound Approach

Lanes	1.3	0.3	1.3	
AM	263	0	0	0 AM
NOON	0	0	0	0 NOON
PM	262	0	0	0 PM

Eastbound Approach

Lanes	AM	NOON	PM
	263	0	262
0	0	0	0
2	0	0	0
1	39	0	57
Lanes	AM	NOON	PM

RTOR

CONTROL

Signalized

Westbound Approach

	AM	NOON	PM	Lanes
	0	0	0	0
	0	0	0	2
	0	0	0	1
	0	0	0	
	AM	NOON	PM	

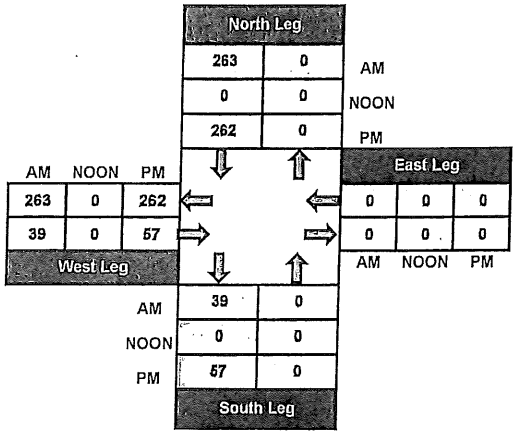
28% 25%

Count Periods	Start	End
AM		
NOON		
PM		

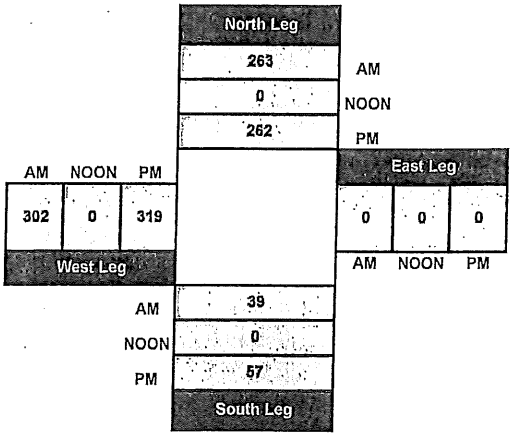
Northbound Approach

AM	39	0	0	0 AM
NOON	0	0	0	0 NOON
PM	57	0	0	0 PM
		0	0	0 Lanes

Total Ins & Outs



Total Volume Per Leg



lb

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

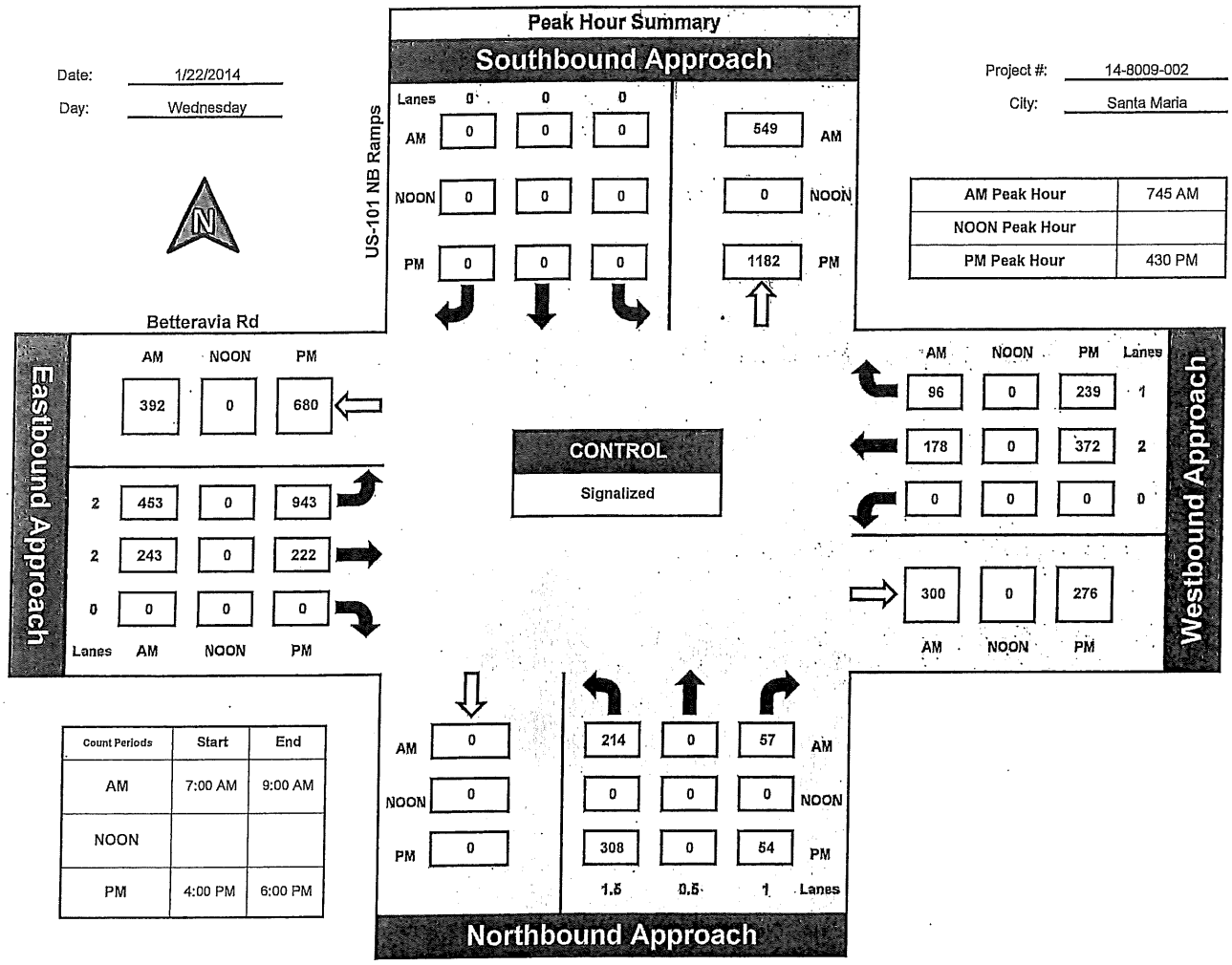
US-101 NB Ramps and Betteravia Rd , Santa Maria

Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-002

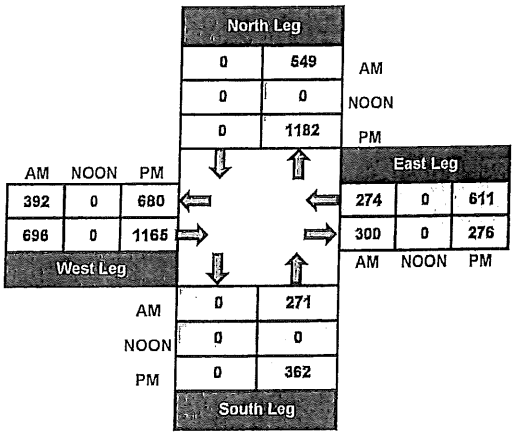
City: Santa Maria



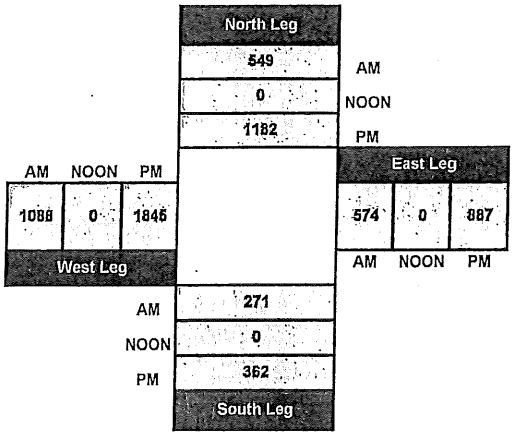
AM Peak Hour	745 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

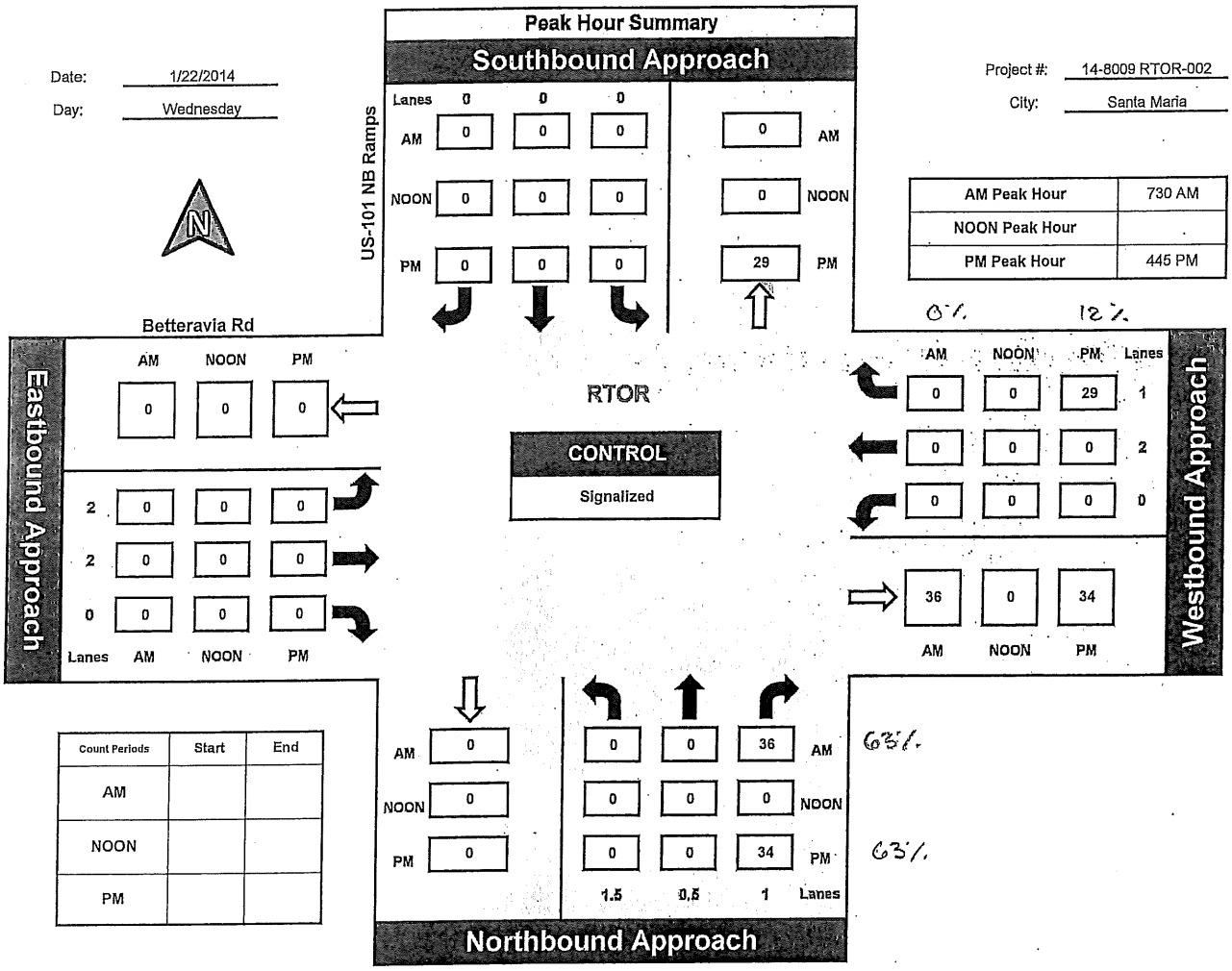
US-101 NB Ramps and Betteravia Rd , Santa Maria

Date: 1/22/2014

Day: Wednesday

Project #: 14-8009 RTOR-002

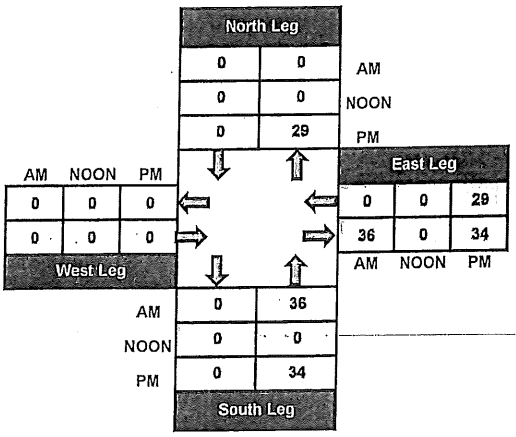
City: Santa Maria



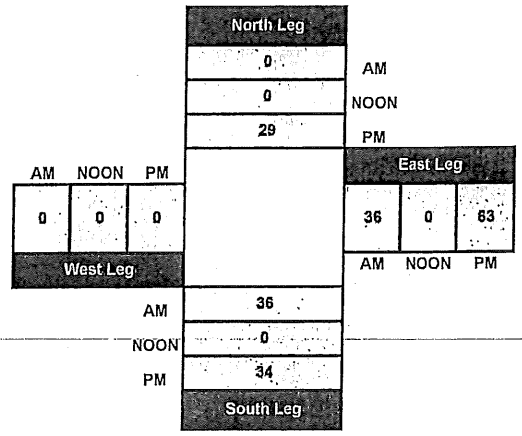
Count Periods	Start	End
AM		
NOON		
PM		

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Telephone Rd and Betteravia Rd , Santa Maria

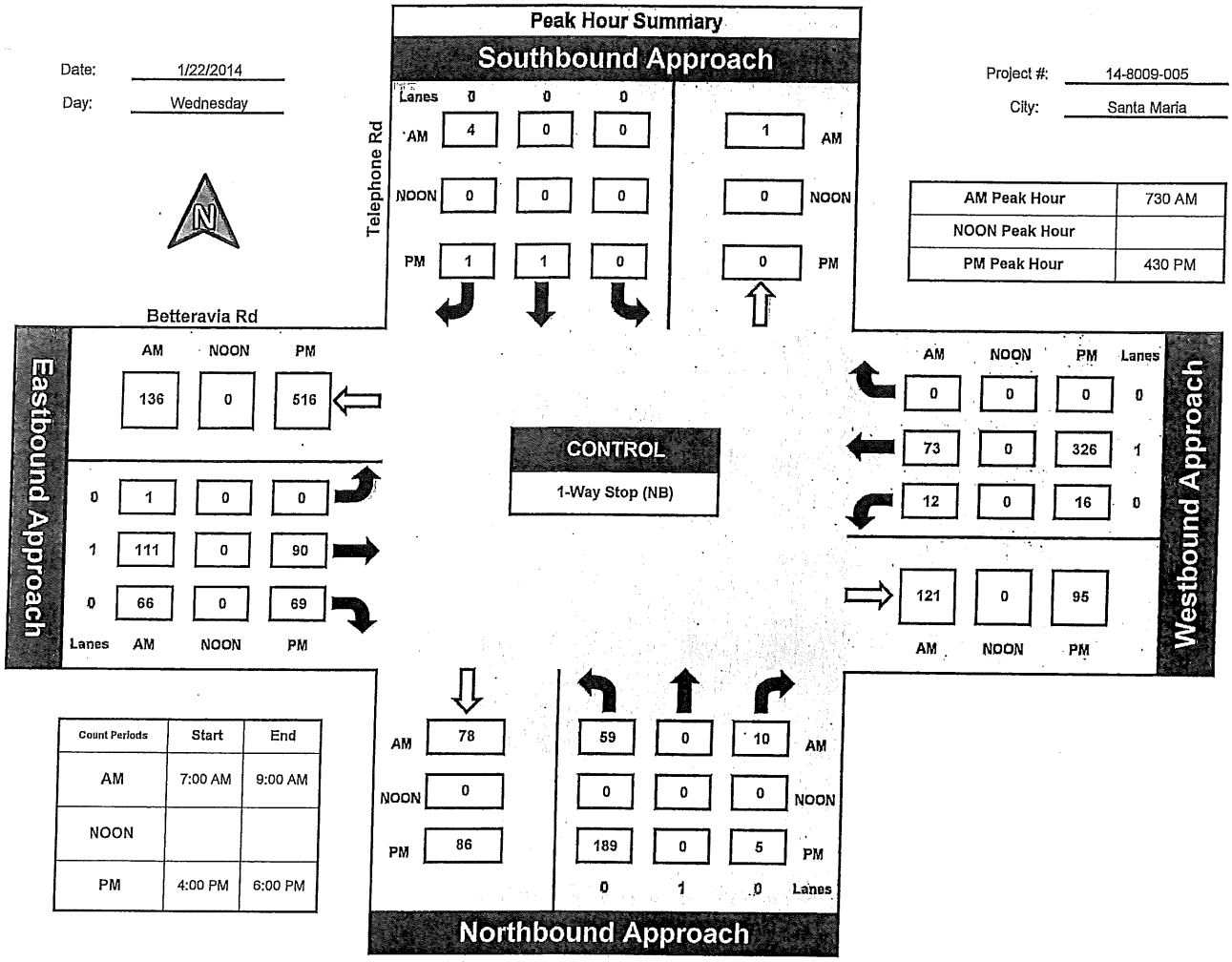
Date: 1/22/2014

Day: Wednesday

Project #: 14-8009-005

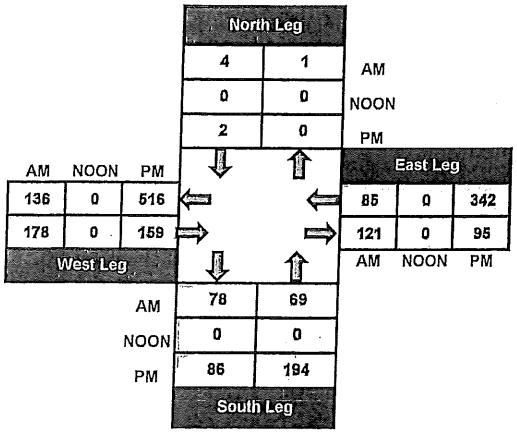
City: Santa Maria

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	430 PM

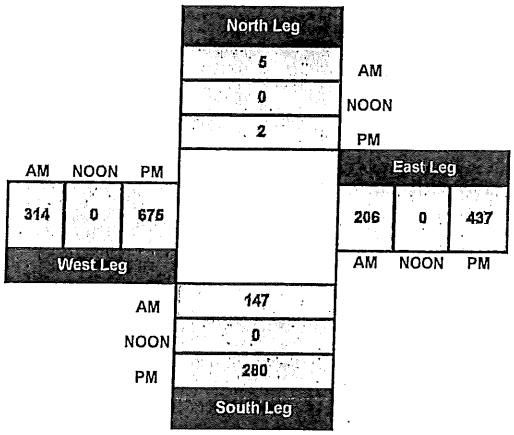


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

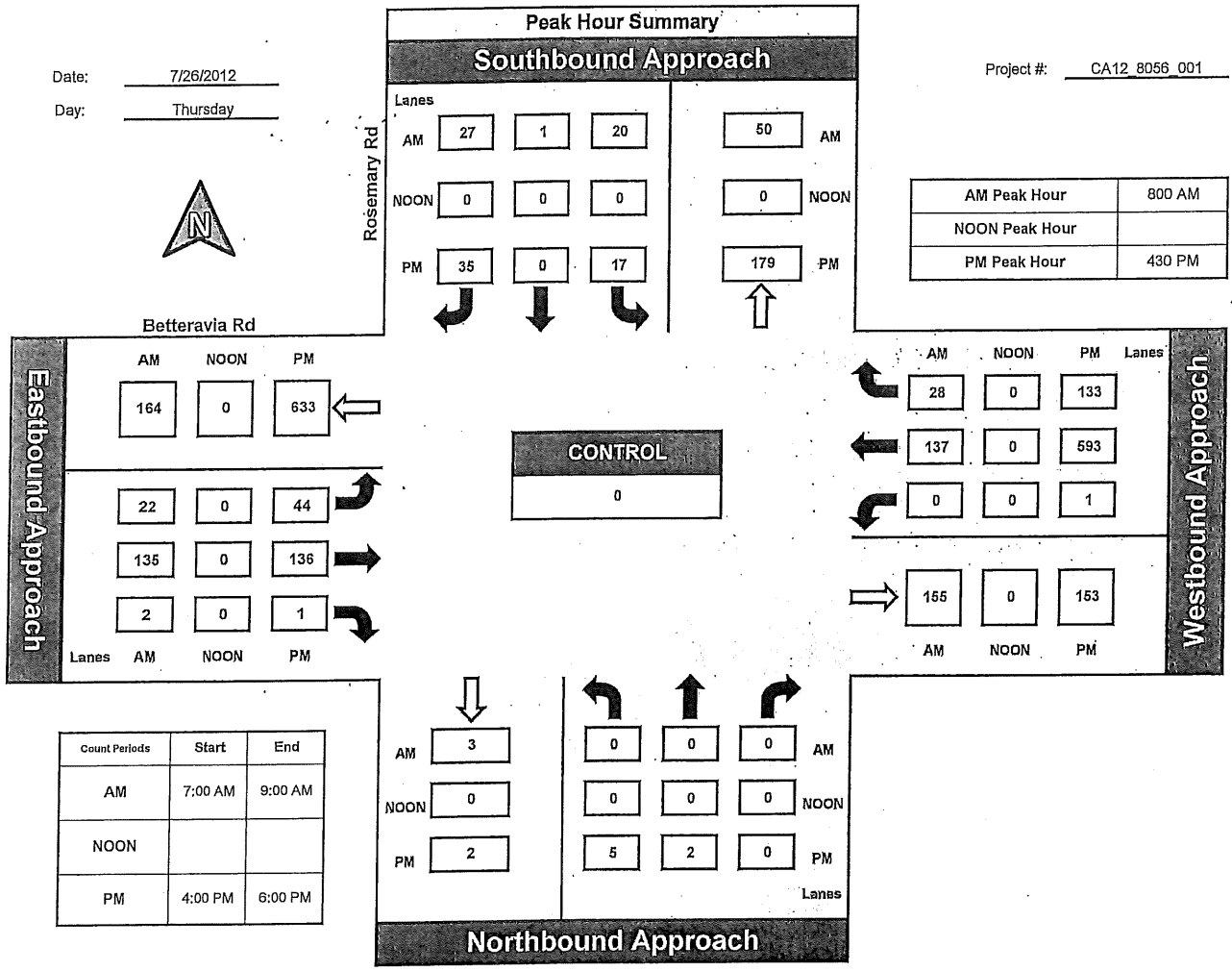
National Data & Surveying Services

Rosemary Rd and Betteravia Rd , City of Santa Maria

Date: 7/26/2012

Day: Thursday

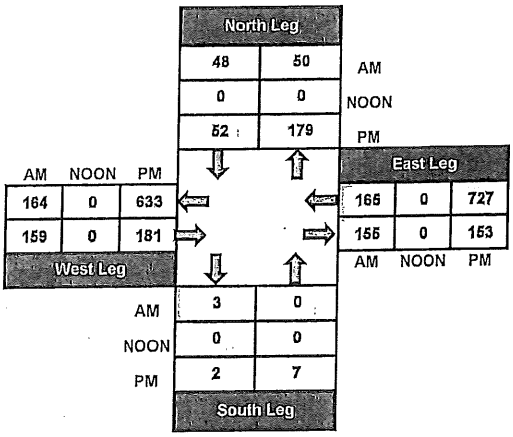
Project #: CA12_8056_001



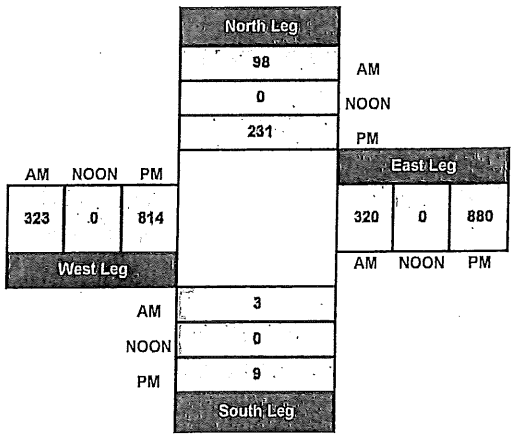
AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	430 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

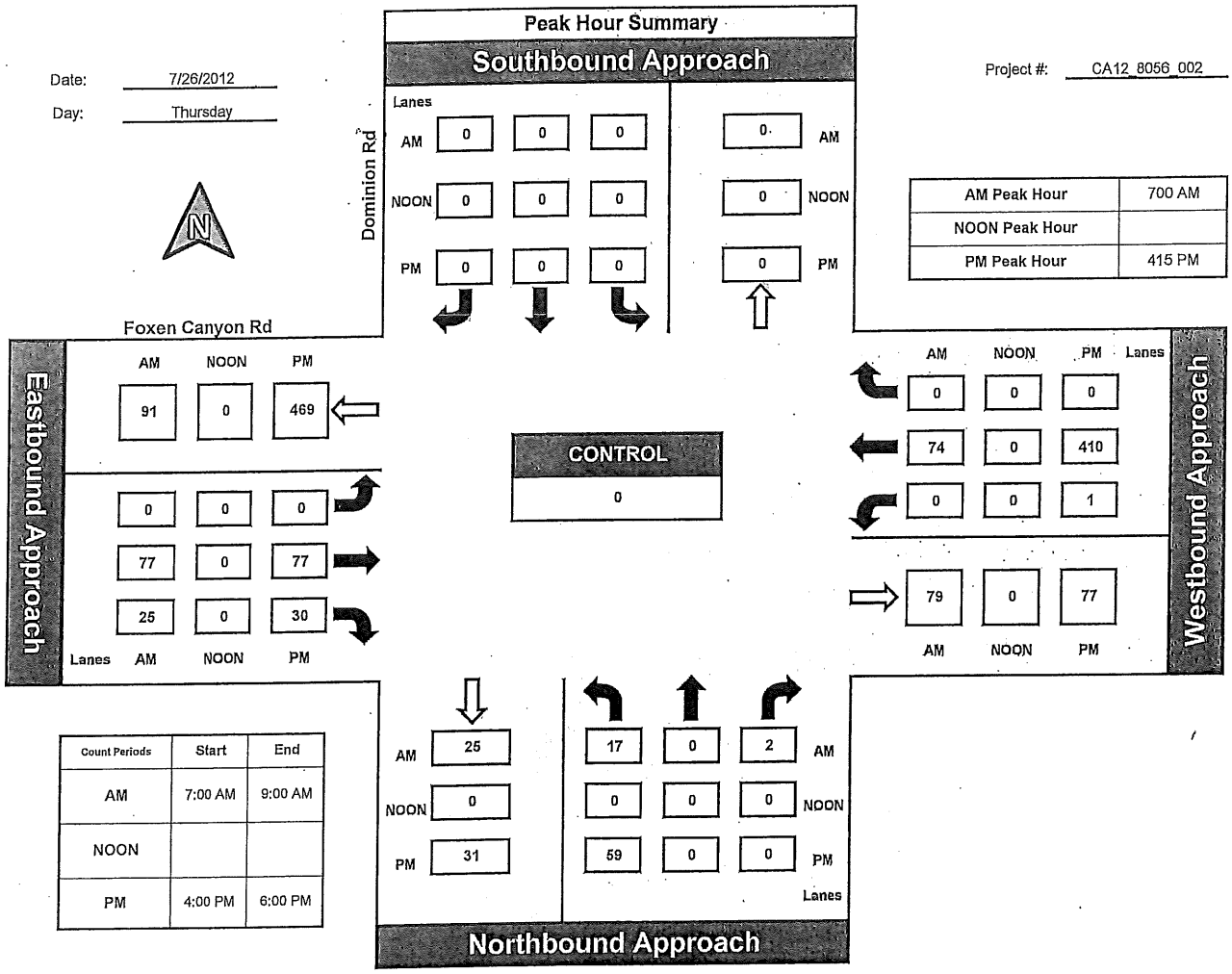
National Data & Surveying Services

Dominion Rd and Foxen Canyon Rd , City of Santa Maria

Date: 7/26/2012

Day: Thursday

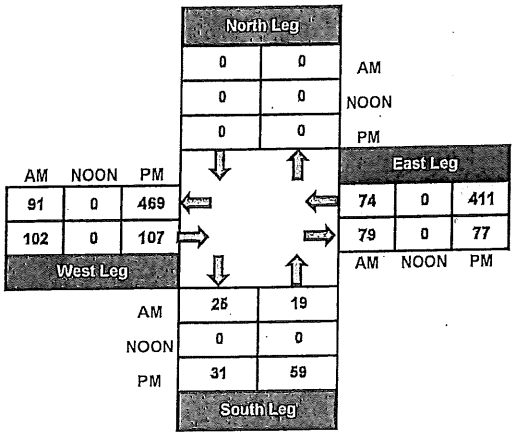
Project #: CA12_8056_002



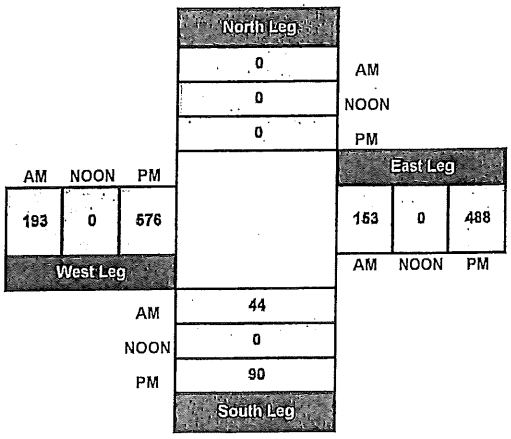
AM Peak Hour	700 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

Reference 1 - U.S. 101 SB/Clark Avenue
Reference 2 - U.S. 101 SB/Clark Avenue
Reference 3 - Telephone Road/Clark Avenue
Reference 4 - Dominion Road/Clark Avenue
Reference 5 - Palmer Road/Cat Canyon Road
Reference 6 - U.S. 101 SB Ramps/Betteravia Road
Reference 7 - U.S. 101 NB Ramps/Betteravia Road
Reference 8 - Telephone Road/Betteravia Road
Reference 9 - Dominion Road/Foxen Canyon Road

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		

ALL APPROACHES

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*676*	*138*	*14*	*134*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*676*	*138*	*14*	*134*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*98*	*0*	*374*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*98*	*0*	*374*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*14*				*98*		*374*
C (m) (veh/h)		*804*				*392*		*1702*
v/c		*0.02*				*0.25*		*0.22*
95% queue length		*0.05*				*0.97*		*0.84*
Control Delay (s/veh)		*9.6*				*17.2*		*7.7*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*9.7*		
Approach LOS	--	--				*A*		

AWD = 9.7 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*676*	*138*	*14*	*134*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*676*	*138*	*14*	*134*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*102*	*0*	*374*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*102*	*0*	*374*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*14*				*102*		*374*
C (m) (veh/h)		*804*				*392*		*1702*
v/c		*0.02*				*0.26*		*0.22*
95% queue length		*0.05*				*1.03*		*0.84*
Control Delay (s/veh)		*9.6*				*17.4*		*7.7*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*9.8*		
Approach LOS	--	--				*A*		

AWD = 9.8 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		

OPTIONS 2, 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*676*	*138*	*14*	*134*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*676*	*138*	*14*	*134*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*98*	*0*	*374*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*98*	*0*	*374*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*14*				*98*		*374*
C (m) (veh/h)		*804*				*392*		*1702*
v/c		*0.02*				*0.25*		*0.22*
95% queue length		*0.05*				*0.97*		*0.84*
Control Delay (s/veh)		*9.6*				*17.2*		*7.7*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*9.7*		
Approach LOS	--	--				*A*		

AVG = 9.7 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*805*	*160*	*20*	*145*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*805*	*160*	*20*	*145*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*115*	*0*	*495*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*115*	*0*	*495*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*20*				*115*		*495*
C (m) (veh/h)		*706*				*318*		*1696*
v/c		*0.03*				*0.36*		*0.29*
95% queue length		*0.09*				*1.60*		*1.23*
Control Delay (s/veh)		*10.2*				*22.6*		*8.0*
LOS		*B*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.7*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		Option 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*805*	*160*	*20*	*145*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*805*	*160*	*20*	*145*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*119*	*0*	*495*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*119*	*0*	*495*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*20*				*119*		*495*
C (m) (veh/h)		*706*				*318*		*1696*
v/c		*0.03*				*0.37*		*0.29*
95% queue length		*0.09*				*1.68*		*1.23*
Control Delay (s/veh)		*10.2*				*22.9*		*8.0*
LOS		*B*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.9*		
Approach LOS	--	--				*B*		

AWD = 10.9 Sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description *EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*

East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*805*	*160*	*20*	*145*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*805*	*160*	*20*	*145*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*115*	*0*	*495*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*115*	*0*	*495*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*20*				*115*		*495*
C (m) (veh/h)		*706*				*318*		*1696*
v/c		*0.03*				*0.36*		*0.29*
95% queue length		*0.09*				*1.60*		*1.23*
Control Delay (s/veh)		*10.2*				*22.6*		*8.0*
LOS		*B*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.7*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		

ALL OPTIONS

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*575*	*66*	*6*	*257*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*575*	*66*	*6*	*257*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*64*	*1*	*495*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*64*	*1*	*495*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*6*				*65*		*495*
C (m) (veh/h)		*1351*				*452*		*1642*
v/c		*0.00*				*0.14*		*0.30*
95% queue length		*0.01*				*0.50*		*1.28*
Control Delay (s/veh)		*7.7*				*14.3*		*8.1*
LOS		*A*				*B*		*A*
Approach Delay (s/veh)	--	--				*8.9*		
Approach LOS	--	--				*A*		

AVG = 8.8 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MMF	Intersection	01PM_EX
Agency/Co.	ATE	Jurisdiction	SANTA BARBARA COUNTY
Date Performed	3/17/2014	Analysis Year	EXISTING+PROJECT
Analysis Time Period	P.M. PEAK HOUR		

Project Description	EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)
East/West Street: CLARK AVENUE	North/South Street: U.S. 101 SB RAMPS
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		575	66	10	265	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	575	66	10	265	0
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				70	1	495
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	0	0	70	1	495
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	0	0	0	1	1
Configuration				LT		R

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				LT		R
v (veh/h)		10				71		495
C (m) (veh/h)		1351				444		1638
v/c		0.01				0.16		0.30
95% queue length		0.02				0.56		1.29
Control Delay (s/veh)		7.7				14.6		8.1
LOS		A				B		A
Approach Delay (s/veh)	--	--				9.0		
Approach LOS	--	--				A		

Aug = 89 sec = use A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MMF	Intersection	01PM
Agency/Co.	ATE	Jurisdiction	SANTA BARBARA COUNTY
Date Performed	4/14/2014	Analysis Year	EXISTING+PROJECT
Analysis Time Period	P.M. PEAK HOUR		

OPTIONS 2, 3.

Project Description	EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)
East/West Street:	CLARK AVENUE
North/South Street:	U.S. 101 SB RAMPS
Intersection Orientation:	East-West
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		571	66	10	265	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	571	66	10	265	0
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				70	1	491
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	0	0	70	1	491
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	0	0	0	1	1
Configuration				LT		R

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				LT		R
v (veh/h)		10				71		491
C (m) (veh/h)		1353				446		1638
v/c		0.01				0.16		0.30
95% queue length		0.02				0.56		1.27
Control Delay (s/veh)		7.7				14.6		8.1
LOS		A				B		A
Approach Delay (s/veh)	--	--				9.0		
Approach LOS	--	--				A		

AWD = 8.9 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		

All options

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*690*	*85*	*10*	*355*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*690*	*85*	*10*	*355*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*70*	*0*	*845*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*70*	*0*	*845*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*10*				*70*		*845*
C (m) (veh/h)		*1275*				*363*		*1596*
v/c		*0.01*				*0.19*		*0.53*
95% queue length		*0.02*				*0.70*		*3.26*
Control Delay (s/veh)		*7.8*				*17.3*		*9.8*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.3*		
Approach LOS	--	--				*B*		

AWD = 10.3 sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		

SRTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*690*	*85*	*14*	*363*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*690*	*85*	*14*	*363*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*76*	*0*	*845*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*76*	*0*	*845*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*14*				*76*		*845*
C (m) (veh/h)		*1275*				*356*		*1592*
v/c		*0.01*				*0.21*		*0.53*
95% queue length		*0.03*				*0.80*		*3.28*
Control Delay (s/veh)		*7.9*				*17.8*		*9.8*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.5*		
Approach LOS	--	--				*B*		

AWD = 10.5 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*01PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 2, 3,

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 SB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*690*	*85*	*14*	*363*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*690*	*85*	*14*	*363*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*72*	*0*	*845*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*72*	*0*	*845*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration				*LT*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*				*LT*		*R*
v (veh/h)		*14*				*72*		*845*
C (m) (veh/h)		*1275*				*356*		*1592*
v/c		*0.01*				*0.20*		*0.53*
95% queue length		*0.03*				*0.74*		*3.28*
Control Delay (s/veh)		*7.9*				*17.7*		*9.8*
LOS		*A*				*C*		*A*
Approach Delay (s/veh)	--	--				*10.4*		
Approach LOS	--	--				*B*		

AWD = 10.4 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*623*	*173*			*93*	*115*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*623*	*173*	*0*	*0*	*93*	*115*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*47*	*0*	*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*47*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*623*		*47*		*5*			
C (m) (veh/h)	*1709*		*576*		*1627*			
v/c	*0.36*		*0.08*		*0.00*			
95% queue length	*1.70*		*0.27*		*0.01*			
Control Delay (s/veh)	*8.3*		*11.8*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*11.4*					
Approach LOS	--	--	*B*					

AWD = 8.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*623*	*177*			*93*	*121*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*623*	*177*	*0*	*0*	*93*	*121*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*47*	*0*	*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*47*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*623*		*47*		*5*			
C (m) (veh/h)	*1709*		*574*		*1623*			
v/c	*0.36*		*0.08*		*0.00*			
95% queue length	*1.70*		*0.27*		*0.01*			
Control Delay (s/veh)	*8.3*		*11.8*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*11.4*					
Approach LOS	--	--	*B*					

AWD = 8.5 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MMF	Intersection	02AM
Agency/Co.	ATE	Jurisdiction	SANTA BARBARA COUNTY
Date Performed	4/14/2014	Analysis Year	EXISTING+PROJECT
Analysis Time Period	A.M. PEAK HOUR		OPTIONS 2,3,

Project Description	EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)
East/West Street:	CLARK AVENUE
North/South Street:	U.S. 101 NB RAMPS
Intersection Orientation:	East-West
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	623	173			93	117
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	623	173	0	0	93	117
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			1
Lanes	1	1	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	47	0	5			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	47	0	5	0	0	0
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L		LT		R			
v (veh/h)	623		47		5			
C (m) (veh/h)	1709		576		1627			
v/c	0.36		0.08		0.00			
95% queue length	1.70		0.27		0.01			
Control Delay (s/veh)	8.3		11.8		7.2			
LOS	A		B		A			
Approach Delay (s/veh)	--	--	11.4					
Approach LOS	--	--	B					

AWD = 8.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*730*	*190*			*105*	*130*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*730*	*190*	*0*	*0*	*105*	*130*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*50*	*0*	*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*50*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*730*		*50*		*5*			
C (m) (veh/h)	*1698*		*461*		*1610*			
v/c	*0.43*		*0.11*		*0.00*			
95% queue length	*2.22*		*0.36*		*0.01*			
Control Delay (s/veh)	*8.7*		*13.8*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*13.2*					
Approach LOS	--	--	*B*					

AWD = 9.0 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 1
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*730*	*194*			*105*	*136*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*730*	*194*	*0*	*0*	*105*	*136*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*50*	*0*	*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*50*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*730*		*50*		*5*			
C (m) (veh/h)	*1698*		*459*		*1607*			
v/c	*0.43*		*0.11*		*0.00*			
95% queue length	*2.22*		*0.36*		*0.01*			
Control Delay (s/veh)	*8.7*		*13.8*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*13.2*					
Approach LOS	--	--	*B*					

AWD = 9.0 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTIONS 2, 3,

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*730*	*190*			*105*	*132*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*730*	*190*	*0*	*0*	*105*	*132*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*50*	*0*	*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*50*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*730*		*50*		*5*			
C (m) (veh/h)	*1698*		*461*		*1610*			
v/c	*0.43*		*0.11*		*0.00*			
95% queue length	*2.22*		*0.36*		*0.01*			
Control Delay (s/veh)	*8.7*		*13.8*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*13.2*					
Approach LOS	--	--	*B*					

AWD = 9.0 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*491*	*153*			*139*	*234*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*491*	*153*	*0*	*0*	*139*	*234*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*119*	*3*	*30*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*119*	*3*	*30*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*491*		*122*		*30*			
C (m) (veh/h)	*1457*		*701*		*1653*			
v/c	*0.34*		*0.17*		*0.02*			
95% queue length	*1.51*		*0.63*		*0.06*			
Control Delay (s/veh)	*8.7*		*11.2*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*10.4*					
Approach LOS	--	--	*B*					

AWD = 9.1 sec = Los A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*491*	*159*			*151*	*305*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*491*	*159*	*0*	*0*	*151*	*305*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*119*	*3*	*30*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*119*	*3*	*30*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*491*		*122*		*30*			
C (m) (veh/h)	*1442*		*682*		*1647*			
v/c	*0.34*		*0.18*		*0.02*			
95% queue length	*1.53*		*0.65*		*0.06*			
Control Delay (s/veh)	*8.8*		*11.4*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*10.6*					
Approach LOS	--	--	*B*					

AWD = 9.2 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 2,3,

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*491*	*155*			*151*	*301*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*491*	*155*	*0*	*0*	*151*	*301*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*119*	*3*	*30*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*119*	*3*	*30*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*491*		*122*		*30*			
C (m) (veh/h)	*1442*		*684*		*1651*			
v/c	*0.34*		*0.18*		*0.02*			
95% queue length	*1.53*		*0.65*		*0.06*			
Control Delay (s/veh)	*8.8*		*11.4*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*10.6*					
Approach LOS	--	--	*B*					

AWD = 9.2 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*595*	*170*			*185*	*260*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*595*	*170*	*0*	*0*	*185*	*260*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*160*	*0*	*35*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*160*	*0*	*35*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*595*		*160*		*35*			
C (m) (veh/h)	*1402*		*546*		*1637*			
v/c	*0.42*		*0.29*		*0.02*			
95% queue length	*2.17*		*1.21*		*0.07*			
Control Delay (s/veh)	*9.4*		*14.3*		*7.2*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*13.0*					
Approach LOS	--	--	*B*					

AWD = 10.3 Sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*02PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *U.S. 101 NB RAMPS*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*595*	*176*			*197*	*331*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*595*	*176*	*0*	*0*	*197*	*331*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*160*	*0*	*35*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*160*	*0*	*35*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*1*	*0*	*0*	*0*
Configuration	*LT*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*LT*		*R*			
v (veh/h)	*595*		*160*		*35*			
C (m) (veh/h)	*1388*		*530*		*1632*			
v/c	*0.43*		*0.30*		*0.02*			
95% queue length	*2.20*		*1.26*		*0.07*			
Control Delay (s/veh)	*9.5*		*14.7*		*7.3*			
LOS	*A*		*B*		*A*			
Approach Delay (s/veh)	--	--	*13.4*					
Approach LOS	--	--	*B*					

AWD = 10.5 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MMF	Intersection	02PM
Agency/Co.	ATE	Jurisdiction	SANTA BARBARA COUNTY
Date Performed	4/14/2014	Analysis Year	CUMULATIVE+PROJECT
Analysis Time Period	P.M. PEAK HOUR		

OPTIONS 2, 3,

Project Description	EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)
East/West Street:	CLARK AVENUE
North/South Street:	U.S. 101 NB RAMPS
Intersection Orientation:	East-West
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	595	172			197	327
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	595	172	0	0	197	327
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			1
Lanes	1	1	0	0	1	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	160	0	35			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	160	0	35	0	0	0
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L		LT		R			
v (veh/h)	595		160		35			
C (m) (veh/h)	1388		532		1635			
v/c	0.43		0.30		0.02			
95% queue length	2.20		1.26		0.07			
Control Delay (s/veh)	9.5		14.7		7.2			
LOS	A		B		A			
Approach Delay (s/veh)	--	--	13.3					
Approach LOS	--	--	B					

AWD = 10.5 Sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*66*	*108*	*6*	*1*	*122*	*15*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*66*	*108*	*6*	*1*	*122*	*15*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*8*	*1*	*1*	*11*	*1*	*68*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*8*	*1*	*1*	*11*	*1*	*68*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*66*	*1*		*10*			*80*	
C (m) (veh/h)	*1493*	*1491*		*577*			*843*	
v/c	*0.04*	*0.00*		*0.02*			*0.09*	
95% queue length	*0.14*	*0.00*		*0.05*			*0.31*	
Control Delay (s/veh)	*7.5*	*7.4*		*11.3*			*9.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.3*			*9.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 8.9 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*66*	*112*	*6*	*1*	*128*	*15*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*66*	*112*	*6*	*1*	*128*	*15*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*8*	*1*	*1*	*11*	*1*	*68*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*8*	*1*	*1*	*11*	*1*	*68*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*66*	*1*		*10*			*80*	
C (m) (veh/h)	*1487*	*1487*		*568*			*835*	
v/c	*0.04*	*0.00*		*0.02*			*0.10*	
95% queue length	*0.14*	*0.00*		*0.05*			*0.32*	
Control Delay (s/veh)	*7.5*	*7.4*		*11.5*			*9.8*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.5*			*9.8*		
Approach LOS	--	--	*B*			*A*		

AWD = 8.9 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTIONS 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*66*	*108*	*6*	*1*	*124*	*19*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*66*	*108*	*6*	*1*	*124*	*19*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*8*	*1*	*1*	*15*	*1*	*68*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*8*	*1*	*1*	*15*	*1*	*68*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*66*	*1*		*10*			*84*	
C (m) (veh/h)	*1487*	*1491*		*573*			*822*	
v/c	*0.04*	*0.00*		*0.02*			*0.10*	
95% queue length	*0.14*	*0.00*		*0.05*			*0.34*	
Control Delay (s/veh)	*7.5*	*7.4*		*11.4*			*9.9*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.4*			*9.9*		
Approach LOS	--	--	*B*			*A*		

AWD = 9.0 Sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	MMF	Intersection	03AM
Agency/Co.	ATE	Jurisdiction	SANTA BARBARA COUNTY
Date Performed	4/14/2014	Analysis Year	EXISTING+PROJECT OPTIONS 3
Analysis Time Period	A.M. PEAK HOUR		
Project Description	EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)		
East/West Street:	CLARK AVENUE	North/South Street:	TELEPHONE ROAD
Intersection Orientation:	East-West	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	66	108	6	1	124	15
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	66	108	6	1	124	15
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	8	1	1	11	1	68
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	8	1	1	11	1	68
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	66	1		10			80	
C (m) (veh/h)	1491	1491		575			841	
v/c	0.04	0.00		0.02			0.10	
95% queue length	0.14	0.00		0.05			0.31	
Control Delay (s/veh)	7.5	7.4		11.4			9.7	
LOS	A	A		B			A	
Approach Delay (s/veh)	--	--	11.4			9.7		
Approach LOS	--	--	B			A		

AWD = 8.9 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*120*	*10*	*5*	*135*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*120*	*10*	*5*	*135*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*10*	*5*	*5*	*5*	*5*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*10*	*5*	*5*	*5*	*5*	*75*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*75*	*5*		*20*			*85*	
C (m) (veh/h)	*1475*	*1475*		*561*			*822*	
v/c	*0.05*	*0.00*		*0.04*			*0.10*	
95% queue length	*0.16*	*0.01*		*0.11*			*0.34*	
Control Delay (s/veh)	*7.6*	*7.4*		*11.7*			*9.9*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.7*			*9.9*		
Approach LOS	--	--	*B*			*A*		

AWD = 9.1 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*124*	*10*	*5*	*141*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*124*	*10*	*5*	*141*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*10*	*5*	*5*	*5*	*5*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*10*	*5*	*5*	*5*	*5*	*75*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*75*	*5*		*20*			*85*	
C (m) (veh/h)	*1469*	*1471*		*554*			*815*	
v/c	*0.05*	*0.00*		*0.04*			*0.10*	
95% queue length	*0.16*	*0.01*		*0.11*			*0.35*	
Control Delay (s/veh)	*7.6*	*7.5*		*11.7*			*9.9*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.7*			*9.9*		
Approach LOS	--	--	*B*			*A*		

AWD = 9.1 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTIONS 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*120*	*10*	*5*	*137*	*24*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*120*	*10*	*5*	*137*	*24*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*10*	*5*	*5*	*9*	*5*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*10*	*5*	*5*	*9*	*5*	*75*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*75*	*5*		*20*			*89*	
C (m) (veh/h)	*1469*	*1475*		*558*			*799*	
v/c	*0.05*	*0.00*		*0.04*			*0.11*	
95% queue length	*0.16*	*0.01*		*0.11*			*0.37*	
Control Delay (s/veh)	*7.6*	*7.4*		*11.7*			*10.1*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*11.7*			*10.1*		
Approach LOS	--	--	*B*			*B*		

AWD = 9.2 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 3
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*75*	*120*	*10*	*5*	*137*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*120*	*10*	*5*	*137*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*10*	*5*	*5*	*15*	*5*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*10*	*5*	*5*	*15*	*5*	*75*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*75*	*5*		*20*			*95*	
C (m) (veh/h)	*1473*	*1475*		*559*			*777*	
v/c	*0.05*	*0.00*		*0.04*			*0.12*	
95% queue length	*0.16*	*0.01*		*0.11*			*0.42*	
Control Delay (s/veh)	*7.6*	*7.4*		*11.7*			*10.3*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*11.7*			*10.3*		
Approach LOS	--	--	*B*			*B*		

AWD = 9.3 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*59*	*119*	*2*	*0*	*274*	*17*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*119*	*2*	*0*	*274*	*17*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*4*	*1*	*1*	*9*	*1*	*84*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*4*	*1*	*1*	*9*	*1*	*84*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*59*	*0*		*6*			*94*	
C (m) (veh/h)	*1346*	*1484*		*480*			*709*	
v/c	*0.04*	*0.00*		*0.01*			*0.13*	
95% queue length	*0.14*	*0.00*		*0.04*			*0.46*	
Control Delay (s/veh)	*7.8*	*7.4*		*12.6*			*10.9*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*12.6*			*10.9*		
Approach LOS	--	--	*B*			*B*		

AWD = 9.8 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	59	125	2	0	357	17
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	59	125	2	0	357	17
Percent Heavy Vehicles	0	--	--	4	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	1	1	9	1	84
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	4	1	1	9	1	84
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			1
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	59	0		6			94	
C (m) (veh/h)	1272	1478		424			635	
v/c	0.05	0.00		0.01			0.15	
95% queue length	0.15	0.00		0.04			0.52	
Control Delay (s/veh)	8.0	7.4		13.6			11.7	
LOS	A	A		B			B	
Approach Delay (s/veh)	--	--	13.6			11.7		
Approach LOS	--	--	B			B		

AWD = 10.4 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT* OPTION 2
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*59*	*121*	*2*	*0*	*353*	*21*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*121*	*2*	*0*	*353*	*21*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*4*	*1*	*1*	*13*	*1*	*84*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*4*	*1*	*1*	*13*	*1*	*84*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*59*	*0*		*6*			*98*	
C (m) (veh/h)	*1272*	*1482*		*427*			*625*	
v/c	*0.05*	*0.00*		*0.01*			*0.16*	
95% queue length	*0.15*	*0.00*		*0.04*			*0.55*	
Control Delay (s/veh)	*8.0*	*7.4*		*13.6*			*11.8*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.6*			*11.8*		
Approach LOS	--	--	*B*			*B*		

AWD = 10.5 sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*59*	*121*	*2*	*0*	*353*	*17*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*121*	*2*	*0*	*353*	*17*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*4*	*1*	*1*	*9*	*1*	*84*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*4*	*1*	*1*	*9*	*1*	*84*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*59*	*0*		*6*			*94*	
C (m) (veh/h)	*1276*	*1482*		*428*			*638*	
v/c	*0.05*	*0.00*		*0.01*			*0.15*	
95% queue length	*0.15*	*0.00*		*0.04*			*0.51*	
Control Delay (s/veh)	*8.0*	*7.4*		*13.5*			*11.6*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.5*			*11.6*		
Approach LOS	--	--	*B*			*B*		

AWD = 10.3 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*65*	*135*	*5*	*0*	*305*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*135*	*5*	*0*	*305*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*65*	*0*		*15*			*110*	
C (m) (veh/h)	*1315*	*1465*		*484*			*657*	
v/c	*0.05*	*0.00*		*0.03*			*0.17*	
95% queue length	*0.16*	*0.00*		*0.10*			*0.60*	
Control Delay (s/veh)	*7.9*	*7.5*		*12.7*			*11.6*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*12.7*			*11.6*		
Approach LOS	--	--	*B*			*B*		

AWD = 10.2 sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*65*	*141*	*5*	*0*	*388*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*141*	*5*	*0*	*388*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*65*	*0*		*15*			*110*	
C (m) (veh/h)	*1243*	*1459*		*434*			*588*	
v/c	*0.05*	*0.00*		*0.03*			*0.19*	
95% queue length	*0.17*	*0.00*		*0.11*			*0.68*	
Control Delay (s/veh)	*8.1*	*7.5*		*13.6*			*12.5*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.6*			*12.5*		
Approach LOS	--	--	*B*			*B*		

AWD = 11.1 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 2
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*65*	*137*	*5*	*0*	*384*	*24*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*137*	*5*	*0*	*384*	*24*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*5*	*5*	*14*	*5*	*95*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*5*	*5*	*14*	*5*	*95*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*65*	*0*		*15*			*114*	
C (m) (veh/h)	*1243*	*1463*		*437*			*580*	
v/c	*0.05*	*0.00*		*0.03*			*0.20*	
95% queue length	*0.17*	*0.00*		*0.11*			*0.72*	
Control Delay (s/veh)	*8.1*	*7.5*		*13.5*			*12.7*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.5*			*12.7*		
Approach LOS	--	--	*B*			*B*		

AWD = 11.2 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*03PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*65*	*137*	*5*	*0*	*384*	*20*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*137*	*5*	*0*	*384*	*20*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*5*	*5*	*10*	*5*	*95*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*65*	*0*		*15*			*110*	
C (m) (veh/h)	*1247*	*1463*		*438*			*593*	
v/c	*0.05*	*0.00*		*0.03*			*0.19*	
95% queue length	*0.16*	*0.00*		*0.11*			*0.68*	
Control Delay (s/veh)	*8.0*	*7.5*		*13.5*			*12.4*	
LOS	*A*	*A*		*B*			*B*	
Approach Delay (s/veh)	--	--	*13.5*			*12.4*		
Approach LOS	--	--	*B*			*B*		

AWD = 11.0 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*24*	*4*			*2*	*52*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*24*	*4*	*0*	*0*	*2*	*52*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*54*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*54*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*24*						*85*	
C (m) (veh/h)	*1595*						*1019*	
v/c	*0.02*						*0.08*	
95% queue length	*0.05*						*0.27*	
Control Delay (s/veh)	*7.3*						*8.9*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--				*8.9*		
Approach LOS	--	--				*A*		

AWD = 8.5 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTIONS 1, 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*30*	*4*			*2*	*52*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*30*	*4*	*0*	*0*	*2*	*52*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*58*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*58*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*30*						*89*	
C (m) (veh/h)	*1595*						*1014*	
v/c	*0.02*						*0.09*	
95% queue length	*0.06*						*0.29*	
Control Delay (s/veh)	*7.3*						*8.9*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--	*8.9*					
Approach LOS	--	--	*A*					

AWSD = 8.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*EXISTING+PROJECT* OPTION 3
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*26*	*8*			*6*	*52*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*26*	*8*	*0*	*0*	*6*	*52*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*54*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*54*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*26*						*85*	
C (m) (veh/h)	*1591*						*1009*	
v/c	*0.02*						*0.08*	
95% queue length	*0.05*						*0.28*	
Control Delay (s/veh)	*7.3*						*8.9*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*8.9*	
Approach LOS	--	--					*A*	

AWD = 8.5 Sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description *EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*	
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*30*	*5*			*5*	*60*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*30*	*5*	*0*	*0*	*5*	*60*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*60*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*60*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*30*						*95*	
C (m) (veh/h)	*1592*						*1006*	
v/c	*0.02*						*0.09*	
95% queue length	*0.06*						*0.31*	
Control Delay (s/veh)	*7.3*						*9.0*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*9.0*	
Approach LOS	--	--					*A*	

AVD = 8.6 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		

OPTION 1,2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*36*	*5*			*5*	*60*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*36*	*5*	*0*	*0*	*5*	*60*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*64*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*64*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*36*						*99*	
C (m) (veh/h)	*1592*						*1002*	
v/c	*0.02*						*0.10*	
95% queue length	*0.07*						*0.33*	
Control Delay (s/veh)	*7.3*						*9.0*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*9.0*	
Approach LOS	--	--					*A*	

AWD = 8.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 3
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*32*	*9*			*9*	*60*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*32*	*9*	*0*	*0*	*9*	*60*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*60*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*60*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*32*						*95*	
C (m) (veh/h)	*1587*						*997*	
v/c	*0.02*						*0.10*	
95% queue length	*0.06*						*0.32*	
Control Delay (s/veh)	*7.3*						*9.0*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*9.0*	
Approach LOS	--	--					*A*	

AWD = 8.6 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*113*	*8*			*6*	*65*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*113*	*8*	*0*	*0*	*6*	*65*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*20*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*20*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*113*						*51*	
C (m) (veh/h)	*1589*						*798*	
v/c	*0.07*						*0.06*	
95% queue length	*0.23*						*0.20*	
Control Delay (s/veh)	*7.4*						*9.8*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--				*9.8*		
Approach LOS	--	--				*A*		

AWD = 8.1 Sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1, 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*196*	*8*			*6*	*65*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*196*	*8*	*0*	*0*	*6*	*65*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*26*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*26*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*196*						*57*	
C (m) (veh/h)	*1589*						*678*	
v/c	*0.12*						*0.08*	
95% queue length	*0.42*						*0.27*	
Control Delay (s/veh)	*7.6*						*10.8*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*10.8*		
Approach LOS	--	--				*B*		

AWD = 8.3 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*EXISTING+PROJECT* OPTION 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*192*	*12*			*10*	*65*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*192*	*12*	*0*	*0*	*10*	*65*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*22*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*22*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*192*						*53*	
C (m) (veh/h)	*1584*						*660*	
v/c	*0.12*						*0.08*	
95% queue length	*0.41*						*0.26*	
Control Delay (s/veh)	*7.6*						*10.9*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*10.9*		
Approach LOS	--	--				*B*		

AWD = 8.3 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*125*	*10*			*10*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*125*	*10*	*0*	*0*	*10*	*75*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*25*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*25*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*125*						*60*	
C (m) (veh/h)	*1584*						*779*	
v/c	*0.08*						*0.08*	
95% queue length	*0.26*						*0.25*	
Control Delay (s/veh)	*7.5*						*10.0*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*10.0*		
Approach LOS	--	--				*B*		

AWD = 8.3 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 1, 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*208*	*10*			*10*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*208*	*10*	*0*	*0*	*10*	*75*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*31*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*31*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*208*						*66*	
C (m) (veh/h)	*1584*						*660*	
v/c	*0.13*						*0.10*	
95% queue length	*0.45*						*0.33*	
Control Delay (s/veh)	*7.6*						*11.1*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--					*11.1*	
Approach LOS	--	--					*B*	

AWD = 8.4 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*04PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *CLARK AVENUE*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*204*	*14*			*14*	*75*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*204*	*14*	*0*	*0*	*14*	*75*
Percent Heavy Vehicles	*6*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*1*
Lanes	*1*	*1*	*0*	*0*	*1*	*1*
Configuration	*L*	*T*			*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*35*		*27*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*35*	*0*	*27*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*4*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*204*						*62*	
C (m) (veh/h)	*1578*						*645*	
v/c	*0.13*						*0.10*	
95% queue length	*0.44*						*0.32*	
Control Delay (s/veh)	*7.6*						*11.2*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--					*11.2*	
Approach LOS	--	--					*B*	

AWD = 8.4 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*6*	*20*	*3*	*3*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*6*	*20*	*3*	*3*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*21*		*4*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*21*	*0*	*4*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*3*		*25*				
C (m) (veh/h)		*1582*		*1009*				
v/c		*0.00*		*0.02*				
95% queue length		*0.01*		*0.08*				
Control Delay (s/veh)		*7.3*		*8.7*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--		*8.7*				
Approach LOS	--	--		*A*				

AWD = 8.6 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 1, 2, 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*6*	*24*	*3*	*3*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*6*	*24*	*3*	*3*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*27*		*4*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*27*	*0*	*4*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*3*		*31*				
C (m) (veh/h)		*1578*		*1005*				
v/c		*0.00*		*0.03*				
95% queue length		*0.01*		*0.10*				
Control Delay (s/veh)		*7.3*		*8.7*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*8.7*					
Approach LOS	--	--	*A*					

AWD = 8.6 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*10*	*25*	*5*	*5*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*10*	*25*	*5*	*5*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*25*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*25*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*5*		*30*				
C (m) (veh/h)		*1573*		*996*				
v/c		*0.00*		*0.03*				
95% queue length		*0.01*		*0.09*				
Control Delay (s/veh)		*7.3*		*8.7*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*8.7*					
Approach LOS	--	--	*A*					

AWD = 8.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 1, 2, 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*10*	*29*	*5*	*5*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*10*	*29*	*5*	*5*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*31*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*31*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*5*		*36*				
C (m) (veh/h)		*1568*		*991*				
v/c		*0.00*		*0.04*				
95% queue length		*0.01*		*0.11*				
Control Delay (s/veh)		*7.3*		*8.8*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*8.8*					
Approach LOS	--	--	*A*					

AWD = 8.6 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*1/30/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*6*	*11*	*7*	*5*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*6*	*11*	*7*	*5*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*66*		*2*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*66*	*0*	*2*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*7*		*68*				
C (m) (veh/h)		*1592*		*991*				
v/c		*0.00*		*0.07*				
95% queue length		*0.01*		*0.22*				
Control Delay (s/veh)		*7.3*		*8.9*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*8.9*					
Approach LOS	--	--	*A*					

AWD = 8.8 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/17/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1, 2, 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*6*	*17*	*7*	*5*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*6*	*17*	*7*	*5*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*149*		*2*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*149*	*0*	*2*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*7*		*151*				
C (m) (veh/h)		*1585*		*988*				
v/c		*0.00*		*0.15*				
95% queue length		*0.01*		*0.54*				
Control Delay (s/veh)		*7.3*		*9.3*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--		*9.3*				
Approach LOS	--	--		*A*				

AWD = 9.2 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description *EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*

East/West Street: *PALMER ROAD* | North/South Street: *CAT CANYON ROAD*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*10*	*15*	*10*	*10*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*10*	*15*	*10*	*10*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*75*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*75*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*10*		*80*				
C (m) (veh/h)		*1583*		*974*				
v/c		*0.01*		*0.08*				
95% queue length		*0.02*		*0.27*				
Control Delay (s/veh)		*7.3*		*9.0*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*9.0*					
Approach LOS	--	--	*A*					

AWD = 8.8 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*05PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*3/19/2014*	Analysis Year	*CUMULATIVE+PROJECT*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 1, 2, 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *PALMER ROAD*	North/South Street: *CAT CANYON ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*10*	*21*	*10*	*10*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*10*	*21*	*10*	*10*	*0*
Percent Heavy Vehicles	*0*	--	--	*4*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*158*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*158*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*4*	*4*	*4*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*10*		*163*				
C (m) (veh/h)		*1577*		*969*				
v/c		*0.01*		*0.17*				
95% queue length		*0.02*		*0.60*				
Control Delay (s/veh)		*7.3*		*9.5*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*9.5*					
Approach LOS	--	--	*A*					

AWD = 9.4 SEC = LOS A

#13079 EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT REF: a AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *01/22/14*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *U.S. 101 SB RAMPS*

E/W STREET: *BETTERAVIA ROAD*

CONTROL TYPE: *SIGNAL*

OPTIONS 2, 3,

TRAFFIC VOLUME SUMMARY

VOLUMES		NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A)	EXISTING:	0	0	0	115	0	938	0	617	140	35	317	0
(B)	PROJECT-ADDED:	0	0	0	4	0	0	0	0	0	0	0	0
(C)	CUMULATIVE:	0	0	0	120	0	950	0	640	170	40	335	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND L LTR R	EAST BOUND TT R	WEST BOUND L TT

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	0	0	0	0	-	-	-	-
NBT	0	0	0	0	0	0	-	-	-	-
NBR (a)	0	0	0	0	0	0	-	-	-	-
SBL	0	0	115	119	120	124	-	-	-	-
SBT	3	4800	0	0	0	0	0.165 *	0.165 *	0.168 *	0.168 *
SBR (b)	0	0	675	675	684	684	-	-	-	-
EBL	0	0	0	0	0	0	-	-	-	-
EBT	2	3200	617	617	640	640	0.193 *	0.193 *	0.200 *	0.200 *
EBR (c)	1	1600	101	101	122	122	0.063	0.063	0.076	0.076
WBL	1	1600	35	35	40	40	0.022 *	0.022 *	0.025 *	0.025 *
WBT	2	3200	317	317	335	335	0.099	0.099	0.105	0.105
WBR (d)	0	0	0	0	0	0	-	-	-	-
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.480**	**0.480**	**0.493**	**0.493**
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

RTOR: *(a) 0%*
(b) 28%
(c) 28%
(d) 0%

Printed: 04/14/14

#13079 EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT REF: a PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *01/22/14*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *U.S. 101 SB RAMPS*

E/W STREET: *BETTERAVIA ROAD*

CONTROL TYPE: *SIGNAL*

OPTIONS 2, 3, 4

TRAFFIC VOLUME SUMMARY

VOLUMES		NORTH BOUND L	T	R	SOUTH BOUND L	T	R	EAST BOUND L	T	R	WEST BOUND L	T	R
(A)	EXISTING:	0	0	0	76	0	622	0	1087	226	66	613	0
(B)	PROJECT-ADDED:	0	0	0	4	0	0	0	0	0	0	0	0
(C)	CUMULATIVE:	0	0	0	80	0	640	0	1110	315	85	650	0

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND	SOUTH BOUND L LTR R	EAST BOUND TT R	WEST BOUND L TT

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS		# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL		0	0	0	0	0	0	-	-	-	-
NBT		0	0	0	0	0	0	-	-	-	-
NBR	*(a)*	0	0	0	0	0	0	-	-	-	-
SBL		0	0	76	80	80	84	-	-	-	-
SBT		3	4800	0	0	0	0	0.109 *	0.110 *	0.113 *	0.114 *
SBR	*(b)*	0	0	448	448	461	461	-	-	-	-
EBL		0	0	0	0	0	0	-	-	-	-
EBT		2	3200	1087	1087	1110	1110	0.340 *	0.340 *	0.347 *	0.347 *
EBR	*(c)*	1	1600	163	163	227	227	0.102	0.102	0.142	0.142
WBL		1	1600	66	66	85	85	0.041 *	0.041 *	0.053 *	0.053 *
WBT		2	3200	613	613	650	650	0.192	0.192	0.203	0.203
WBR	*(d)*	0	0	0	0	0	0	-	-	-	-
						LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
						TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.590**	**0.591**	**0.613**	**0.614**
						SCENARIO LEVEL OF SERVICE:		A	A	B	B

NOTES:

RTOR: *(a) 0%*
(b) 28%
(c) 28%
(d) 0%

Printed: 04/14/14

#13079 EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT REF: b AM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *01/22/14*

TIME PERIOD: *A.M. PEAK HOUR*

N/S STREET: *U.S. 101 NB RAMPS*

E/W STREET: *BETTERAVIA ROAD*

CONTROL TYPE: *SIGNAL*

OPTIONS 2, 3.

TRAFFIC VOLUME SUMMARY

VOLUMES		NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A)	EXISTING:	214	0	57	0	0	0	453	243	0	0	178	96
(B)	PROJECT-ADDED:	0	0	0	0	0	0	0	4	0	0	0	4
(C)	CUMULATIVE:	225	0	60	0	0	0	460	250	0	0	190	100

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND L LT R	SOUTH BOUND	EAST BOUND LL TT	WEST BOUND TT R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	214	214	225	225	-	-	-	-
NBT	2	3200	0	0	0	0	0.067 *	0.067 *	0.070 *	0.070 *
NBR (a)	1	1600	21	21	22	22	0.013	0.013	0.014	0.014
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	- *	- *	- *	- *
SBR (b)	0	0	0	0	0	0	-	-	-	-
EBL	2	3200	453	453	460	460	0.142 *	0.142 *	0.144 *	0.144 *
EBT	2	3200	243	247	250	254	0.076	0.077	0.078	0.079
EBR (c)	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	2	3200	178	178	190	190	0.056 *	0.056 *	0.059 *	0.059 *
WBR (d)	1	1600	96	100	100	104	0.060	0.063	0.063	0.065
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.365**	**0.365**	**0.373**	**0.373**
					SCENARIO LEVEL OF SERVICE:		A	A	A	A

NOTES:

RTOR: *(a) 63%*
(b) 0%
(c) 0%
(d) 0%

Printed: 04/14/14

#13079 EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT REF: b PM

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: *01/22/14*

TIME PERIOD: *P.M. PEAK HOUR*

N/S STREET: *U.S. 101 NB RAMPS*

E/W STREET: *BETTERAVIA ROAD*

CONTROL TYPE: *SIGNAL*

OPTIONS 2, 3,

TRAFFIC VOLUME SUMMARY

VOLUMES		NORTH BOUND L	NORTH BOUND T	NORTH BOUND R	SOUTH BOUND L	SOUTH BOUND T	SOUTH BOUND R	EAST BOUND L	EAST BOUND T	EAST BOUND R	WEST BOUND L	WEST BOUND T	WEST BOUND R
(A)	EXISTING:	308	0	54	0	0	0	943	222	0	0	372	239
(B)	PROJECT-ADDED:	0	0	0	0	0	0	0	4	0	0	0	4
(C)	CUMULATIVE:	345	0	60	0	0	0	970	245	0	0	390	245

GEOMETRICS

LANE GEOMETRICS	NORTH BOUND L LT R	SOUTH BOUND	EAST BOUND LL TT	WEST BOUND TT R

TRAFFIC SCENARIOS

SCENARIO 1 = EXISTING VOLUMES (A)
SCENARIO 2 = EXISTING + PROJECT VOLUMES (A+B)
SCENARIO 3 = CUMULATIVE (C)
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS

MOVEMENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES 1	2	3	4	SCENARIO V/C RATIOS 1	2	3	4
NBL	0	0	308	308	345	345	-	-	-	-
NBT	2	3200	0	0	0	0	0.096 *	0.096 *	0.108 *	0.108 *
NBR (a)	1	1600	20	20	22	22	0.013	0.013	0.014	0.014
SBL	0	0	0	0	0	0	-	-	-	-
SBT	0	0	0	0	0	0	- *	- *	- *	- *
SBR (b)	0	0	0	0	0	0	-	-	-	-
EBL	2	3200	943	943	970	970	0.295 *	0.295 *	0.303 *	0.303 *
EBT	2	3200	222	226	245	249	0.069	0.071	0.077	0.078
EBR (c)	0	0	0	0	0	0	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-
WBT	2	3200	372	372	390	390	0.116 *	0.116 *	0.122 *	0.122 *
WBR (d)	1	1600	210	214	216	219	0.131	0.134	0.135	0.137
					LOST TIME:		0.100 *	0.100 *	0.100 *	0.100 *
					TOTAL INTERSECTION CAPACITY UTILIZATION:		**0.607**	**0.607**	**0.633**	**0.633**
					SCENARIO LEVEL OF SERVICE:		**B**	**B**	**B**	**B**

NOTES:

RTOR: *(a) 63%*
(b) 0%
(c) 0%
(d) 12%

Printed: 04/14/14

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*AM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		OPTIONS 2,3,.

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*111*	*66*	*12*	*73*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*1*	*111*	*66*	*12*	*73*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*59*	*0*	*10*	*0*	*0*	*4*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*0*	*10*	*0*	*0*	*4*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*1*	*12*		*69*			*4*	
C (m) (veh/h)	*1502*	*1375*		*716*			*978*	
v/c	*0.00*	*0.01*		*0.10*			*0.00*	
95% queue length	*0.00*	*0.03*		*0.32*			*0.01*	
Control Delay (s/veh)	*7.4*	*7.6*		*10.6*			*8.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*10.6*			*8.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.1 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 2

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*111*	*70*	*12*	*73*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*1*	*111*	*70*	*12*	*73*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*63*	*0*	*10*	*0*	*0*	*4*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*63*	*0*	*10*	*0*	*0*	*4*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*1*	*12*		*73*			*4*	
C (m) (veh/h)	*1502*	*1371*		*712*			*978*	
v/c	*0.00*	*0.01*		*0.10*			*0.00*	
95% queue length	*0.00*	*0.03*		*0.34*			*0.01*	
Control Delay (s/veh)	*7.4*	*7.6*		*10.6*			*8.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*10.6*			*8.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.1 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT* OPTIONS 3, 4
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*115*	*66*	*12*	*77*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*1*	*115*	*66*	*12*	*77*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*59*	*0*	*10*	*0*	*0*	*4*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*0*	*10*	*0*	*0*	*4*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*1*	*12*		*69*			*4*	
C (m) (veh/h)	*1497*	*1371*		*708*			*973*	
v/c	*0.00*	*0.01*		*0.10*			*0.00*	
95% queue length	*0.00*	*0.03*		*0.32*			*0.01*	
Control Delay (s/veh)	*7.4*	*7.6*		*10.6*			*8.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*10.6*			*8.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.1 SEE LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE* OPTIONS 2,3,
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*5*	*125*	*75*	*15*	*80*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*125*	*75*	*15*	*80*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*65*	*0*	*15*	*0*	*0*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*0*	*15*	*0*	*0*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*5*	*15*		*80*			*5*	
C (m) (veh/h)	*1493*	*1349*		*682*			*969*	
v/c	*0.00*	*0.01*		*0.12*			*0.01*	
95% queue length	*0.01*	*0.03*		*0.40*			*0.02*	
Control Delay (s/veh)	*7.4*	*7.7*		*11.0*			*8.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.0*			*8.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.2 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 2
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*5*	*125*	*79*	*15*	*80*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*125*	*79*	*15*	*80*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*69*	*0*	*15*	*0*	*0*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*69*	*0*	*15*	*0*	*0*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*5*	*15*		*84*			*5*	
C (m) (veh/h)	*1493*	*1344*		*678*			*969*	
v/c	*0.00*	*0.01*		*0.12*			*0.01*	
95% queue length	*0.01*	*0.03*		*0.42*			*0.02*	
Control Delay (s/veh)	*7.4*	*7.7*		*11.1*			*8.7*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.1*			*8.7*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.3 sec = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTIONS 3,
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*5*	*129*	*75*	*15*	*84*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*5*	*129*	*75*	*15*	*84*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*65*	*0*	*15*	*0*	*0*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*0*	*15*	*0*	*0*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*5*	*15*		*80*			*5*	
C (m) (veh/h)	*1488*	*1344*		*674*			*964*	
v/c	*0.00*	*0.01*		*0.12*			*0.01*	
95% queue length	*0.01*	*0.03*		*0.40*			*0.02*	
Control Delay (s/veh)	*7.4*	*7.7*		*11.1*			*8.8*	
LOS	*A*	*A*		*B*			*A*	
Approach Delay (s/veh)	--	--	*11.1*			*8.8*		
Approach LOS	--	--	*B*			*A*		

AWD = 10.2 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*PM_EX*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 2, 3,

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*90*	*69*	*16*	*326*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*90*	*69*	*16*	*326*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*189*	*0*	*5*	*0*	*1*	*1*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*189*	*0*	*5*	*0*	*1*	*1*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*16*		*194*			*2*	
C (m) (veh/h)	*1211*	*1396*		*486*			*550*	
v/c	*0.00*	*0.01*		*0.40*			*0.00*	
95% queue length	*0.00*	*0.03*		*1.89*			*0.01*	
Control Delay (s/veh)	*8.0*	*7.6*		*17.2*			*11.6*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*17.2*			*11.6*		
Approach LOS	--	--	*C*			*B*		

AWD = 16.4 SEC = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT* OPTION 2
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*90*	*73*	*16*	*326*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*90*	*73*	*16*	*326*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*193*	*0*	*5*	*0*	*1*	*1*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*193*	*0*	*5*	*0*	*1*	*1*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*16*		*198*			*2*	
C (m) (veh/h)	*1211*	*1392*		*485*			*548*	
v/c	*0.00*	*0.01*		*0.41*			*0.00*	
95% queue length	*0.00*	*0.03*		*1.96*			*0.01*	
Control Delay (s/veh)	*8.0*	*7.6*		*17.4*			*11.6*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*17.4*			*11.6*		
Approach LOS	--	--	*C*			*B*		

AWD = 16.6 sec = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*EXISTING+PROJECT* OPTIONS 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*94*	*69*	*16*	*330*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*94*	*69*	*16*	*330*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*189*	*0*	*5*	*0*	*1*	*1*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*189*	*0*	*5*	*0*	*1*	*1*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*16*		*194*			*2*	
C (m) (veh/h)	*1207*	*1392*		*480*			*545*	
v/c	*0.00*	*0.01*		*0.40*			*0.00*	
95% queue length	*0.00*	*0.03*		*1.93*			*0.01*	
Control Delay (s/veh)	*8.0*	*7.6*		*17.5*			*11.6*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*17.5*			*11.6*		
Approach LOS	--	--	*C*			*B*		

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Generated: 4/15/2014 1:37 PM

AWD = 16.7 sec = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE*
Analysis Time Period	*P.M. PEAK HOUR*		OPTIONS 2,3,

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*100*	*75*	*20*	*360*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*100*	*75*	*20*	*360*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*210*	*0*	*5*	*0*	*5*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*210*	*0*	*5*	*0*	*5*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*20*		*215*			*10*	
C (m) (veh/h)	*1177*	*1378*		*436*			*514*	
v/c	*0.00*	*0.01*		*0.49*			*0.02*	
95% queue length	*0.00*	*0.04*		*2.66*			*0.06*	
Control Delay (s/veh)	*8.1*	*7.7*		*21.0*			*12.1*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*21.0*			*12.1*		
Approach LOS	--	--	*C*			*B*		

AWD = 19.6 SEC = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 2
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*100*	*79*	*20*	*360*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*100*	*79*	*20*	*360*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*214*	*0*	*5*	*0*	*5*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*214*	*0*	*5*	*0*	*5*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*20*		*219*			*10*	
C (m) (veh/h)	*1177*	*1373*		*435*			*513*	
v/c	*0.00*	*0.01*		*0.50*			*0.02*	
95% queue length	*0.00*	*0.04*		*2.76*			*0.06*	
Control Delay (s/veh)	*8.1*	*7.7*		*21.4*			*12.2*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*21.4*			*12.2*		
Approach LOS	--	--	*C*			*B*		

AWD = 19.9 sec = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/14/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTIONS 3,
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *BETTERAVIA ROAD*	North/South Street: *TELEPHONE ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*104*	*75*	*20*	*364*	*0*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*104*	*75*	*20*	*364*	*0*
Percent Heavy Vehicles	*6*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*210*	*0*	*5*	*0*	*5*	*5*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*210*	*0*	*5*	*0*	*5*	*5*
Percent Heavy Vehicles	*6*	*6*	*6*	*6*	*6*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*0*	*20*		*215*			*10*	
C (m) (veh/h)	*1173*	*1373*		*431*			*510*	
v/c	*0.00*	*0.01*		*0.50*			*0.02*	
95% queue length	*0.00*	*0.04*		*2.71*			*0.06*	
Control Delay (s/veh)	*8.1*	*7.7*		*21.4*			*12.2*	
LOS	*A*	*A*		*C*			*B*	
Approach Delay (s/veh)	--	--	*21.4*			*12.2*		
Approach LOS	--	--	*C*			*B*		

AWD = 19.9 SEC = LOS C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*EX_AM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*8/3/2012*	Analysis Year	*EXISTING*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*77*	*25*	*0*	*74*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*77*	*25*	*0*	*74*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*17*		*2*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*17*	*0*	*2*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*0*		*19*				
C (m) (veh/h)		*1441*		*830*				
v/c		*0.00*		*0.02*				
95% queue length		*0.00*		*0.07*				
Control Delay (s/veh)		*7.5*		*9.4*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--		*9.4*				
Approach LOS	--	--		*A*				

AWD = 9.4 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*EXISTING+PROJECT*
Analysis Time Period	*A.M. PEAK HOUR*		OPTION 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*77*	*29*	*0*	*74*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*77*	*29*	*0*	*74*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*21*		*2*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*21*	*0*	*2*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*0*		*23*				
C (m) (veh/h)		*1437*		*825*				
v/c		*0.00*		*0.03*				
95% queue length		*0.00*		*0.09*				
Control Delay (s/veh)		*7.5*		*9.5*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*9.5*					
Approach LOS	--	--	*A*					

AWD = 9.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE* OPTION 3
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*85*	*30*	*0*	*80*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*85*	*30*	*0*	*80*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*20*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*20*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*0*		*25*				
C (m) (veh/h)		*1426*		*825*				
v/c		*0.00*		*0.03*				
95% queue length		*0.00*		*0.09*				
Control Delay (s/veh)		*7.5*		*9.5*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--		*9.5*				
Approach LOS	--	--		*A*				

AWD = 9.5 SEC = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 3
Analysis Time Period	*A.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*85*	*34*	*0*	*80*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*85*	*34*	*0*	*80*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*24*		*5*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*24*	*0*	*5*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*0*		*29*				
C (m) (veh/h)		*1421*		*820*				
v/c		*0.00*		*0.04*				
95% queue length		*0.00*		*0.11*				
Control Delay (s/veh)		*7.5*		*9.6*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--		*9.6*				
Approach LOS	--	--		*A*				

AWD = 9.6 sec = LOS A

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	*EX_PM*
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*8/3/2012*	Analysis Year	*EXISTING*
Analysis Time Period	*P.M. PEAK HOUR*		OPTION 3

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*77*	*30*	*1*	*410*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*77*	*30*	*1*	*410*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*59*		*0*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*59*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*1*		*59*				
C (m) (veh/h)		*1435*		*520*				
v/c		*0.00*		*0.11*				
95% queue length		*0.00*		*0.38*				
Control Delay (s/veh)		*7.5*		*12.8*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*12.8*					
Approach LOS	--	--	*B*					

AWD = 12.7 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*EXISTING+PROJECT* OPTION 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*77*	*34*	*1*	*410*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*77*	*34*	*1*	*410*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*63*		*0*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*63*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*1*		*63*				
C (m) (veh/h)		*1430*		*519*				
v/c		*0.00*		*0.12*				
95% queue length		*0.00*		*0.41*				
Control Delay (s/veh)		*7.5*		*12.9*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*12.9*					
Approach LOS	--	--	*B*					

AWD = 12.8 SEC = LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE* OPTION 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*85*	*35*	*5*	*450*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*85*	*35*	*5*	*450*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*65*		*0*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*65*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*5*		*65*				
C (m) (veh/h)		*1420*		*479*				
v/c		*0.00*		*0.14*				
95% queue length		*0.01*		*0.47*				
Control Delay (s/veh)		*7.5*		*13.7*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--		*13.7*				
Approach LOS	--	--		*B*				

AWD = 13.3 SEE LOS B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*MMF*	Intersection	
Agency/Co.	*ATE*	Jurisdiction	*SANTA BARBARA COUNTY*
Date Performed	*4/15/2014*	Analysis Year	*CUMULATIVE+PROJECT* OPTION 3
Analysis Time Period	*P.M. PEAK HOUR*		

Project Description	*EAST CAT CANYON OIL FIELD REDEVELOPMENT PROJECT (#13079)*
East/West Street: *FOXEN CANYON ROAD*	North/South Street: *DOMINION ROAD*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*85*	*39*	*5*	*450*	
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*85*	*39*	*5*	*450*	*0*
Percent Heavy Vehicles	*0*	--	--	*10*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*69*		*0*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*69*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*6*	*0*	*6*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*5*		*69*				
C (m) (veh/h)		*1415*		*478*				
v/c		*0.00*		*0.14*				
95% queue length		*0.01*		*0.50*				
Control Delay (s/veh)		*7.6*		*13.8*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*13.8*					
Approach LOS	--	--	*B*					

AVD = 13.4 SEC = LOS B

CUMULATIVE PROJECT INFORMATION

East Cat Canyon Oil Field Redevelopment Project
Cumulative Projects List
March 2014

Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
09PPP-00000-00002	Santa Maria Energy ODPP	101-020-074	San Antonio Creek	136 wells, 3-mile oil line	Approved	Production Plan	11/12/2009
06PPP-00000-00001	Cimarex Oil Production Plan	113-190-001	Santa Maria	2 exploratory wells	Approved	Production Plan	5/9/2006
08PPP-00000-00001	Rock Energy Oil & Gas Production Plan	129-100-014	Santa Maria	Oil wells and facilities	Under Construction	Production Plan	6/5/2008
09PPP-00000-00001	Underground Energy Production Plan	133-050-011 133-050-015 133-080-004 133-080-005	Santa Maria	26 wells	Approved	Production Plan	9/23/2009
10PRE-00000-00013	ERG -Fugler Lease	101-040-017	Santa Maria	20 wells	Proposed	Preapplication	12/21/2010
11PPP-00000-00001	North Garey ODPP	129-080-011 129-100-017 129-100-023 129-100-029 129-100-030 129-100-031 129-180-007	Santa Maria	56 wells	In Process	Production Plan	5/31/2011
05PPP-00000-00001	Breitburn Production Plan	101-020-041	Santa Maria	96 wells	Under Construction	Production Plan	7/1/2005
11PRE-00000-00013	ERG Resources-Los Alamos Fee	101-060-053 101-060-054 101-070-001	Santa Maria	17 oil and gas wells	In Process	Preapplication	8/1/2011
11PRE-00000-00017	Petrorock, LLC - Schopp Lease	128-100-027	Santa Maria	3 oil wells	In Process	Preapplication	8/15/2011
11PRE-00000-00020	Amrich Energy - Tognazzini-Adams Lease	113-080-006 113-100-027 113-110-001	Santa Maria	12 oil wells, 2 produced water disposal wells	In Process	Preapplication	9/20/2011
11PRE-00000-00021	ERG - Gwinn Fee Lease	101-070-003	Santa Maria	4 wells	In Process	Preapplication	11/22/2011
10PRE-00000-00011	ERG Resources, LLC Pre-Application	101-040-006	Santa Maria	20 wells	Proposed	Preapplication	12/9/2010
11PRE-00000-00003	Amrich Energy - Hansen Lease	113-270-006	Santa Maria	4 wells	Proposed	Preapplication	2/9/2011
11PRE-00000-00007	ERG Resources - GWP	129-180-013 129-180-015	Santa Maria	6 wells	Proposed	Preapplication	6/3/2011

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
12DVP-00000-00005	ERG Foxen Pipeline	129-080-006 129-080-007 129-090-016 129-090-021 129-090-032 129-090-033 129-090-037 129-090-038 129-100-014 129-100-015 129-100-025 129-100-034 129-100-035 129-100-036 129-180-007 129-180-008 129-180-013 129-180-015	Santa Maria	2.9 Mile Oil Pipeline	In Process	Development Plan	6/18/2012
11PRE-00000-00002	ERG Resources - Pinal Lease	101-020-078	Santa Maria	2 wells	Proposed	Preapplication	1/18/2011
03CUP-00000-00059	Ventucopa Rock Plant Expansion	149-170-036 149-210-011 149-210-022	Cuyama Valley	400,000 tons/year	In Process	Conditional Use Permit	10/22/2003
07PPP-00000-00002	E&B Natural Resources Mgmt Production Plan	147-030-019 147-100-021	Cuyama Valley	2 oil wells	Under Construction	Production Plan	11/29/2007
02TPM-00000-00011	Silverado Premium Properties TPM	101-080-019 101-080-020 101-080-062	San Antonio Creek	Four way lot split	In Process	Tentative Parcel Map	6/24/2002
06TRM-00000-00002	Rancho La Laguna Tract Map 14,709	133-080-026 133-080-036 133-080-037	San Antonio Creek	Tract map for creation of 13 new parcels	In Process	Tract Map	7/25/2006
07TPM-00000-00010	Carrari Lot Split (TPM 14,733)	099-030-051	San Antonio Creek	Tentative Parcel Map, 3 way lot split	Approved	Tentative Parcel Map	5/29/2007
02TRM-00000-00007	Legacy Estates Tract Map	101-201-001 101-202-001 101-231-001 101-232-001 101-233-001 101-234-001 101-242-001	San Antonio Creek/ Los Alamos Community Plan	Creation of 59 lots from antiquated lots within urban boundary of Los Alamos.	Approved	Tract Map	8/9/2002

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
05TRM-00000-00006	Jackson Tract Map 14,690	101-182-003 101-182-009 101-182-011 101-182-012	San Antonio Creek/ Los Alamos Community Plan	Tract map to split two parcels into six lots.	Approved	Tract Map	12/27/2005
06TPM-00000-00026	Alamo Trust Lot Split (TPM 14,717)	101-184-007	San Antonio Creek/ Los Alamos Community Plan	Tentative parcel map for a two-way lot split	Approved	Tentative Parcel Map	10/19/2006
07TPM-00000-00007	Alamos Foxen LLC (TPM 14,728)	101-270-028	San Antonio Creek/ Los Alamos Community Plan	Tentative parcel map for division of 1 parcel into 3 parcels	Approved	Tentative Parcel Map	5/3/2007
07TPM-00000-00009	Almada Lot Split (TPM 14,731)	101-260-017	San Antonio Creek/ Los Alamos Community Plan	Tentative parcel map for a two-way lot split	Approved	Tentative Parcel Map	5/18/2007
09CUP-00000-00026	Helgeland Mixed Use Building	101-183-010	San Antonio Creek/ Los Alamos Community Plan	11,921 sq ft commercial building	Approved	Development Plan	6/30/2009
10PRE-00000-00010	The Children's Project Academy Pre-application	101-100-038 101-100-040	San Antonio Creek/ Los Alamos Community Plan	Small village	Proposed	Preapplication	10/1/2010
11LUP-00000-00148	Rosemary Commons	101-173-001	San Antonio Creek/ Los Alamos Community Plan	5,720 sq ft building	Approved		4/21/2011
11LUP-00000-00149	Sagebrush Junction	101-260-006 101-260-007	San Antonio Creek/ Los Alamos Community Plan	Three two-story apartment buildings (10,320 sf), two single story commercial buildings (5,600 sf).	Under Construction		4/21/2011

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
06DVP-00000-00009	OSR Enterprising/NRG Enterprises LP	128-096-001 128-096-004 128-096-005	Santa Maria Valley	185,820 sf cooler, 10,496 sf office, 22,000 sf shop	Approved	Development Plan	7/14/2006
06DVP-00000-00013	HIN Development Plan	128-093-021	Santa Maria Valley	9,750 sf fenced area	In Process	Development Plan	9/6/2006
06TPM-00000-00019	OSR/NRG Enterprises (TPM 14,707)	128-096-001 128-096-004 128-096-005	Santa Maria Valley	Tentative parcel map for lot split and rezone.	Approved	Tentative Parcel Map	7/14/2006
07DVP-00000-00004	Johnson Truck Service Center	111-030-018	Santa Maria Valley	Truck service center	In Process	Development Plan	2/13/2007
08DVP-00000-00007	Plantel Nurseries	129-170-004	Santa Maria Valley	2 growing areas (1.04 acres), 21 greenhouses (972,720 sf), 30,000 sf warehouse, 12,000 sf shop	Under Construction	Development Plan	2/26/2008
08DVP-00000-00032	Arc Vineyards Winery	129-151-045 129-151-067 129-151-068	Santa Maria Valley	Tier III winery	Under Construction	Development Plan	11/5/2008
08CUP-00000-00074	Arc Vineyards Employee Dwellings	129-151-045 129-151-067 129-151-069	Santa Maria Valley	3 employee units, 2 manager's units	Approved		11/5/2008
08TPM-00000-00012	Rancho Real LLC Lot Split (TPM 14,752)	101-020-013	Santa Maria Valley	Tentative parcel map to creat four parcels	Approved	Tentative Parcel Map	7/9/2008
10DVP-00000-00016	Adam Bros Farming As-Built Development Plan	113-150-013	Santa Maria Valley	Structures (100,00 sf)	Under Construction	Development Plan	10/20/2010
10PRE-00000-00007	Grayson Service Preapplication	129-180-015	Santa Maria Valley	Steam generator	Approved	Preapplication	8/19/2010
10TPM-00000-00005	Greka Land Holdings Tentative Parcel Map (TPM 14,773)	129-170-027	Santa Maria Valley	Lot split to place oil & gas operations in minimum lot	Approved	Tentative Parcel Map	11/1/2010
11DVP-00000-00012	Coastal Growers Supply Storage Yard	111-020-013	Santa Maria Valley	Two 7,500 sf metal buildings.	Under Construction	Development Plan	8/29/2011
11DVP-00000-00013	Sierra Madre Ranch Winery	129-010-007	Santa Maria Valley	Tier II winery	Approved	Development Plan	9/8/2011
11DVP-00000-00014	F' Street Development Plan - Parcel 3	111-030-025	Santa Maria Valley	Office (1,500 sf), garage/shop (4,000 sf), 10,000 gal domestic water service	In Process	Development Plan	9/26/2011

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
11DVP-00000-00015	F' Street Development Plan - Parcel 4	111-030-026	Santa Maria Valley	Office (1,500 sf), garage/shop (4,000 sf), 10,000 gal domestic water service	In Process	Development Plan	9/27/2011
11PRE-00000-00001	ERG Resources Pre-application - Fugler 880 Lease	129-170-006	Santa Maria Valley	4 wells	In Process	Preapplication	1/10/2011
12AMD-00000-00008	Rock Energy Oil & Gas Production Plan	129-080-011 129-100-014 129-100-017 129-100-023 129-100-029 129-100-030 129-100-031 129-180-007	Santa Maria Valley	56 wells	In Process	Production Plan	8/23/2012
06DVP-00000-00016	Orcutt Union Plaza/Will Commercial Bldgs	105-091-001 105-091-006	Santa Maria Valley/Old Town Orcutt & OC Plan	4 buildings (66,831 sf total)	Under Construction	Development Plan	10/20/2006
06TPM-00000-00014	Gayda Lot Split (TPM 14,703)	105-060-013	Santa Maria Valley/Old Town Orcutt & OC Plan	Tentative parcel map for the creation of three new parcels	Approved	Tentative Parcel Map	6/9/2006
09GPA-00000-00004	Key Site 17 General Plan Amendment	105-134-004 105-134-005 105-330-005 105-330-006	Santa Maria Valley/Old Town Orcutt & OC Plan	Senior housing project	In Process	General Plan Amendment	4/20/2009
10LUP-00000-00461	Van Veen Mixed Use Building	105-101-012	Santa Maria Valley/Old Town Orcutt & OC Plan	1 building (8601 sf)	In Process	Land Use Permit	11/12/2010
01CUP-00000-00115	Orcutt Aquacenter	107-470-011	Santa Maria Valley/Orcutt Community Plan	Aquacenter	Approved	Conditional Use Permit	8/30/2001
02NEW-00000-00053	Leo Evans-Northpointe (OLD 98-DP-023)	107-560-001	Santa Maria Valley/Orcutt Community Plan	32 Condominium units	Approved	Development Plan	3/16/2002
02TRM-00000-00010	Addamo Winery/ Diamente [Tract Map 14,616]	129-151-042	Santa Maria Valley/Orcutt Community Plan	Creation of five RR-10 lots and two AG-I-20 lots	Approved	Tract Map	12/17/2002

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
03DVP-00000-00009	Rice Ranch Development Plan	101-010-013 101-020-004 105-140-016	Santa Maria Valley/Orcutt Community Plan	Divide property into 512 lots.	Under Construction	Development Plan	3/1/2003
03TPM-00000-00008	Daniels Lot Split (TPM 14,626)	129-151-038	Santa Maria Valley/Orcutt Community Plan	Divide one 23.42 acre parcel into two parcels	Approved	Tentative Parcel Map	4/23/2003
03TRM-00000-00001	Fetyko Tract Map (TM 14,627)	103-740-016	Santa Maria Valley/Orcutt Community Plan	18 lot subdivision	Approved	Tract Map	6/18/2003
04TPM-00000-00010	Burinda Lot Split (TPM 14,656)	129-151-040	Santa Maria Valley/Orcutt Community Plan	Two-way lot split	Approved	Tentative Parcel Map	7/2/2004
04TPM-00000-00013	Mendoza Lot Split (TPM 14,659)	103-200-048	Santa Maria Valley/Orcutt Community Plan	Two-way lot split	Approved	Tentative Parcel Map	9/15/2004
05SPP-00000-00002	English-Joseph Specific Plan	103-181-006	Santa Maria Valley/Orcutt Community Plan	Commercial retail and office condominiums (56,806 sf)	In Process	Specific Plan	12/16/2005
05TPM-00000-00015	Meyer Lot Split (TPM 14,679)	103-181-013	Santa Maria Valley/Orcutt Community Plan	Three-way lot split of 4.25 acre parcel into 3 parcels	Approved	Tentative Parcel Map	8/11/2005
05TPM-00000-00018	Treur Lot Split (TPM 14,683)	129-151-015	Santa Maria Valley/Orcutt Community Plan	Two-way lot split	Approved	Tentative Parcel Map	9/16/2005
05TRM-00000-00004	Wilks Tract Map 14,681	105-210-032	Santa Maria Valley/Orcutt Community Plan	Tract map 14,681	Approved	Tract Map	8/23/2005
06DVP-00000-00008	Orcutt Marketplace	129-120-024	Santa Maria Valley/Orcutt Community Plan	Commercial and hotel development	Approved	Development Plan	6/30/2006
06GPA-00000-00016	Key Site 3 General Plan Amendment	129-151-026	Santa Maria Valley/Orcutt Community Plan	Change from RR-10 to Residential	In Process	General Plan Amendment	10/2/2006

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Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
06TPM-00000-00003	Conley Lot Split (TPM 14,693)	105-010-032	Santa Maria Valley/Orcutt Community Plan	Three-way lot split	Approved	Tentative Parcel Map	2/8/2006
06TPM-00000-00022	Hope Community Church (TPM 14,711)	107-150-019	Santa Maria Valley/Orcutt Community Plan	Creation of 3 lots from 1	Approved	Tentative Parcel Map	8/21/2006
06TPM-00000-00024	Chaloupka Lot Split (TPM 14,714)	129-151-019	Santa Maria Valley/Orcutt Community Plan	Tentative parcel map for the creation of two parcels	Approved	Tentative Parcel Map	9/26/2006
07DVP-00000-00009	PR Investments/Evergreen Shopping Ctr Development Plan	109-200-012 109-200-013 109-200-015 109-200-016	Santa Maria Valley/Orcutt Community Plan	Demolition of structures (~32,000 sf), redevelopment of shopping center (61,958 sf).	Under Construction	Development Plan	4/3/2007
07DVP-00000-00020	St. Joseph Development Plan	107-240-015	Santa Maria Valley/Orcutt Community Plan	Processing will continue under this Development Plan	Under Construction	Development Plan	7/19/2007
07DVP-00000-00026	St. Louis De Montfort Church	103-200-071	Santa Maria Valley/Orcutt Community Plan	New structure	Under Construction	Development Plan	9/21/2007
07TRM-00000-00004	Orcutt Marketplace Tract Map (TM 14,734)	129-120-024	Santa Maria Valley/Orcutt Community Plan	Vesting tentative tract map with the creation of twelve lots	Approved	Tract Map	6/28/2007
08TRM-00000-00001	Hummel Village II Airspace Condos (TM 14,740)	107-270-003	Santa Maria Valley/Orcutt Community Plan	Parcel map for the creation of twenty airspace condominiums	Approved	Tract Map	1/9/2008
09DVP-00000-00029	Clark Avenue Commercial	103-750-038	Santa Maria Valley/Orcutt Community Plan	3 buildings (12,938 sf total)	Approved	Development Plan	8/31/2009
10DVP-00000-00002	Key Site 30 Development Plan	107-250-008	Santa Maria Valley/Orcutt Community Plan	Development Plan for recreation part of site.	Approved	Development Plan	2/17/2010

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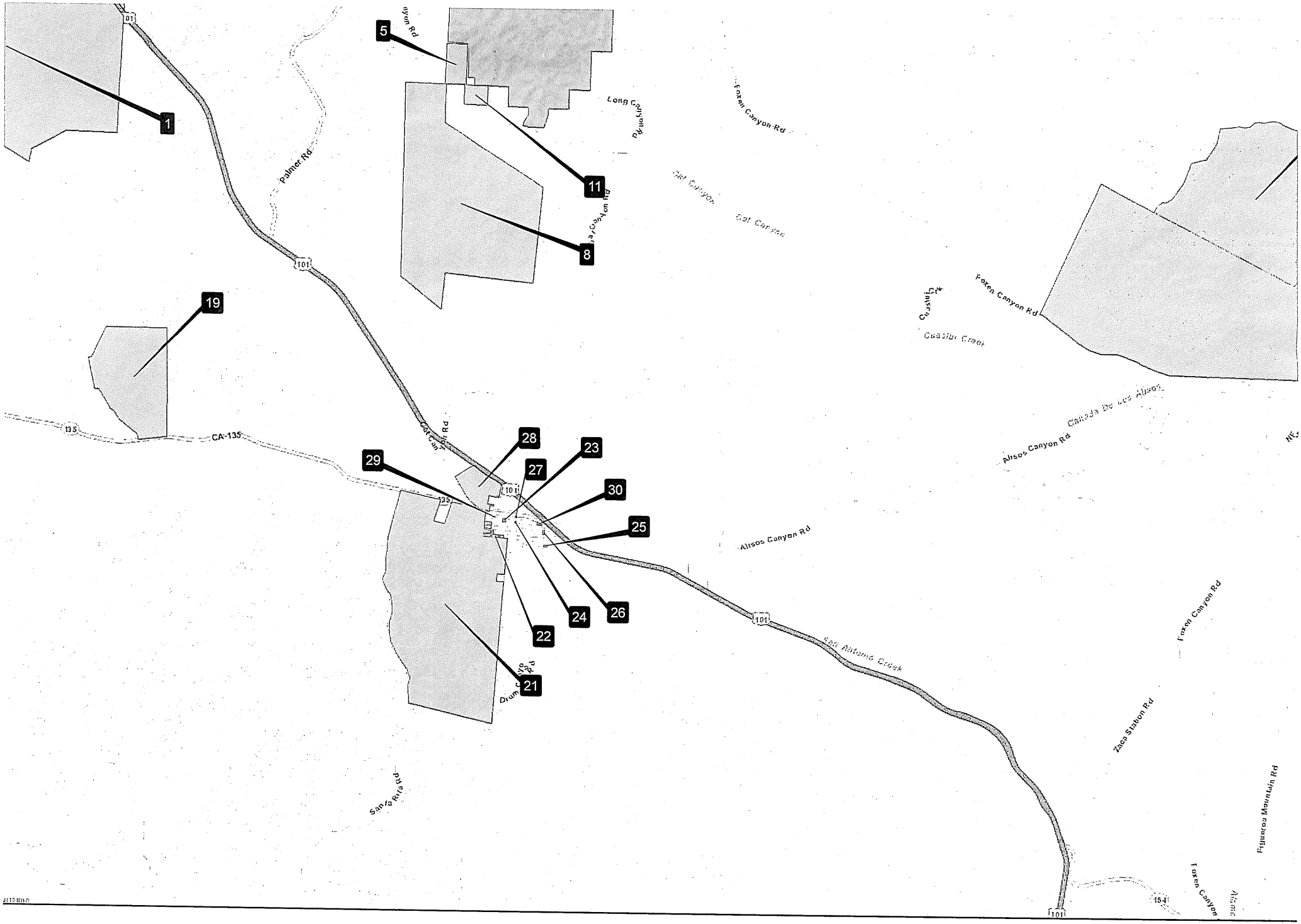
Case_Number	Project_Name	APN	Area	Description	Permit_Status	Type	Filed
10GPA-00000-00006	Revised Rice Ranch General Plan Amendment 2011	101-380-001 101-380-002 101-380-003 101-390-001 101-400-001 101-400-002 101-400-003 101-440-029	Santa Maria Valley/Orcutt Community Plan	General Plan Amendment for the revision to Rice Ranch	In Review	General Plan Amendment	12/1/2010
10TRM-00000-00003	Terrace Villas Tract Map 14,770	129-300-001 129-300-002 129-300-003 129-300-004 129-300-005 129-300-006 129-300-007 129-300-008 129-300-009 129-300-010 129-300-011 129-300-012 129-300-013 129-300-014 129-300-015 129-300-016 129-300-017 129-300-018 129-300-019 129-300-020	Santa Maria Valley/Orcutt Community Plan	The project would re-design the currently recorded tract map for Terrace Ranch under a new tract map	Approved	Tract Map	7/27/2010
11CUP-00000-00003	Primrose Special Care Facility	105-010-080	Santa Maria Valley/Orcutt Community Plan	Residential care facility	Approved	Conditional Use Permit	2/1/2011
11TPM-00000-00003	Richardson Tentative Parcel Map (TPM 14,780)	129-151-037	Santa Maria Valley/Orcutt Community Plan	Subdividing 40.69 acre lot into 4 lots of 10.17 acres each	In Process	Tentative Parcel Map	7/12/2011
11PRE-00000-00006	PXP Pre-application - Fire Fighter Road	095-030-006	Vandenberg	1 well	Proposed	Preapplication	5/16/2011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