Appendix A

SANDAG Regional Arterial System Listing

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www.sandag.org

MEETING NOTICE AND AGENDA

CITIES/COUNTY TRANSPORTATION ADVISORY COMMITTEE (CTAC)

The CTAC may take action on any item appearing on this agenda.

Thursday, June 7, 2007

9:30 to 11:30 a.m.

SANDAG, Conference Room 8A
401 B Street, Suite 800
San Diego, CA 92101-4231

Chair: Greg Humora, City of La Mesa
Vice Chair: Vacant

Staff Contact: Charles "Muggs" Stoll
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(619) 699-0709 fax
mst@sandag.org

AGENDA HIGHLIGHTS

- REGIONAL ARTERIAL SYSTEM (RAS) UPDATE
- PUBLIC SCOPING MEETING FOR NOTICE OF PREPARATION OF AN EIR FOR THE 2007 RTP

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CITIES/COUNTY TRANSPORTATION ADVISORY COMMITTEE (CTAC)

Thursday, June 7, 2007

ITEM # **ACTION**

1. INTRODUCTIONS

+2. MEETING SUMMARY (Greg Humora) **APPROVE**

The summary for the May 3, 2007, meeting is attached. CTAC is asked to review and approve the meeting summary.

3. PUBLIC COMMENTS

+4. Regional Arterial System (RAS) Update (Heather Werdick) **INFORMATION**

Staff will report on actions taken at the June 1, 2007, Transportation Committee on the recommended modifications to the Regional Arterial System (RAS). The revised RAS will be included in the Draft 2007 Regional Transportation Plan (RTP).

+5. PUBLIC SCOPING MEETING FOR NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE 2007 REGIONAL TRANSPORTATION PLAN (Shelby Tucker/Rob Rundle) **DISCUSSION**

SANDAG, as the lead agency, will prepare an Environmental Impact Report (EIR) for the 2007 Regional Transportation Plan. This item will serve as a public scoping meeting allowing members of the Working Group and the public an opportunity to provide their views on the scope and content of the environmental information that will be addressed in the EIR.

6. NOMINATION AND ELECTION OF NEW CTAC COMMITTEE VICE CHAIR (Greg Humora) **NOMINATION/ ELECTION**

With the recent departure of the current Vice Chair from the CTAC, and in accordance with the CTAC Charter, the committee is asked to nominate and elect a new Vice Chair to fill out the remaining term through calendar 2007.

7. ANNOUNCEMENTS **INFORMATION**

CTAC members are encouraged to share items of interest.

8. UPCOMING MEETING **INFORMATION**

The next CTAC meeting is scheduled for Thursday, July 5, 2007, from 9:30 to 11:30 a.m.

+ next to an agenda item indicates an attachment.

June 7, 2007

AGENDA ITEM NO.: **2**

Action Requested: APPROVE

MEETING SUMMARY, MAY 3, 2007

Introductions

Richard Leja (Vice Chair) chaired the meeting in Greg Humora's absence. Meeting participants introduced themselves.

Meeting Summaries

CTAC approved the meeting summaries from the April 5 and 12, 2007, meetings as written.

Public Comments

There were no comments from the public.

Form 700: Statement of Economic Interest

Charles "Muggs" Stoll (SANDAG) reminded members and alternates to turn in their Form 700 and noted that he had spoken to several of the members and alternates individually. He further noted that at this late date, members would not be allowed to participate at the June meeting if they do not turn in their forms as requested.

Statewide Capital Improvement Project (CIP) Benchmarking Study Presentation

Richard Leja (Vice Chair) made a presentation summarizing the fifth-year update to this study. Copies of the study can be downloaded at http://eng.lacity.org/techdocs/cabm/. The study involves cities throughout California and seeks to set benchmarking for two major factors:

1. How much does it cost?
2. How to do it better?

A question was raised as to whether environmental mitigation costs were included in the project costs. Mr. Leja responded that environmental mitigation costs were included.

Paul Vo (San Marcos) asked a question regarding whether the funding type was identified for the projects. Mr. Leja responded that funding types were not identified, but that it would be interesting to do so.

There was a request to get a copy of the presentation, and Mr. Stoll agreed to send the presentation via e-mail to all CTAC members and alternates.

Board of Directors Discussion on Stormwater Management

Shelby Tucker (SANDAG) made a presentation summarizing the planned Board of Directors Policy Forum on stormwater management scheduled for May 11, 2007. The proposed Policy Forum was a result of the Regional Comprehensive Plan's Integrated Regional Infrastructure Strategy, as stormwater management was a major issue identified without a dedicated funding source. After reviewing the outline for the Policy Forum, the CTAC members were asked for input. Mr. Leja offered that he believed that SANDAG could have a role in stormwater management by working to unite the region on the issue. The CTAC members were encouraged to provide further feedback and to attend the May 11, 2007, Board of Directors Policy Forum.

2007 Regional Transportation Plan (RTP)

Mike Hix (SANDAG) reported that the Transportation Committee and Board of Directors have accepted the staff recommendations for the Revenue Constrained and Reasonably Expected scenarios at their respective April meetings. These were the same recommendations that were presented at the last CTAC meeting on April 12, 2007. It was further reported that the Draft RTP will go back to the Board in June for approval to circulate with the Draft Environmental Impact Report (EIR) going to the Board in July. The EIR schedule would include a Public Hearing in the fall of this year, with formal adoption scheduled for November 2007.

Linda Marabian (City of San Diego) asked where the proposed increases in funding would come from for the Reasonably Expected scenario. Mr. Hix responded that the Board instructed staff to pursue options for funding and to include a "laundry list" of options in the Draft RTP.

Mr. Leja asked about the status of the Regional Arterial System (RAS) recommendations from the CTAC. Mr. Hix responded that a meeting was planned with the County of San Diego and that the issue would go back to the Transportation Committee in May/June.

***TransNet* Extension Bicycle and Pedestrian Provisions**

Stephan Vance (SANDAG) provided a summary of previous discussions regarding this issue and noted that several members of SANDAG's Bicycle-Pedestrian Working Group were in attendance to participate in the discussions.

Mr. Vance noted that one of the larger issues in the provisions relates to the recommendation for sidewalks on both sides of residential streets. He also noted that there were concerns regarding potential impacts to jurisdictions in programming transportation projects and how to properly document "leaving out" bicycle/pedestrian features.

Mr. Leja asked if doing a General Plan update to address the lack of new bicycle/pedestrian features was "good enough." Mr. Vance's response was that a General Plan update alone, without a more deliberate consideration of the bicycle/pedestrian issues would not meet the ordinance requirement to routinely accommodate bicycles and pedestrians.

Terry Rayback (County of San Diego) asked about the language on page 9 of the guidelines regarding bicycle or pedestrian master plans. Mr. Vance noted that if a situation were covered by an adopted master plan, there would not be a need to produce a public notice. Mr. Leja noted that the guidelines process would only be used if the project were to deviate from the guidelines or adopted master plan. It was also noted that the City of La Mesa currently has an adopted master plan and others were being worked on.

Steve Cresswell (City of Santee) suggested that the paragraph in the middle of page 9 be edited to remove "as a guide," in order to make the language more clear. Kathy Keehan (SD County Bicycle Coalition) expressed concern about whether a General Plan will adequately cover the appropriate level of detail needed to address the issue.

Larry Pierce (City of Vista) then expressed concern regarding the language on page 10, first paragraph, noting that an agency needs to consider reduced motor vehicle lane widths. When Mr. Cresswell highlighted the word "consider" in the language, Mr. Pierce expressed concern that defining that term would be difficult and might result in adversarial confrontations at the political level.

Frank Casteleneto (City of Poway) stated that they were already looking to minimize lane widths where they can and that the issue is not as significant as it seems. Jim Baross (Bicycle-Pedestrian Working Group) stated that he was concerned with linking the issue directly to the master plan as it would need to be very comprehensive.

Fred Luedtke (City of Escondido) asked if the process for SANDAG adoption of bicycle/pedestrian master plans had been established. Mr. Vance stated that it was still to be determined. He further stated that trying to make the master plans into a "free pass" will result in high scrutiny if there are exceptions to the guidelines. Mr. Rayback asked why the environmental process for a project couldn't be used to address this issue and that the County of San Diego was particularly concerned about how the guidelines will affect rural streets.

Mr. Casteleneto moved to recommend approval of the guidelines with the following revised second paragraph under "What Constitutes Adequate Accommodation of Bicyclists and Pedestrians," just after Table 1:

> Where a local jurisdiction has a bicycle or pedestrian master plan adopted by the city council or Board of Supervisors and approved by SANDAG, the local agency may use that plan to determine the appropriate means of accommodating bicyclists and pedestrians in a given project that is addressed in the plan, and at a minimum provide the facilities called for in the plan. These plans must be updated and approved no less than every five years to qualify as a means of satisfying this provision.

Frank Rivera (City of Chula Vista) seconded the motion.

The vote was ten in favor (Carlsbad, Chula Vista, Coronado, El Cajon, Escondido, Oceanside, Poway, City of San Diego, Santee, and Solana Beach) and four against (Encinitas, County of San Diego, San Marcos, and Vista). The motion for recommended approval of the guidelines was passed.

Announcements

Joseph Asuncion (Caltrans) stated that Caltrans is looking for feedback from the external relations committee meeting held in April 2007 at the Caltrans District 11 office. He also announced that he would be forwarding recent federal funding program announcements.

Mr. Leja announced that he had recently accepted an offer to work for Boyle Engineering and would be leaving his position at the City of San Diego. He thanked the CTAC members for all of the interactions they shared and looked forward to working with many of them in his new capacity.

TRANSPORTATION COMMITTEE

June 1, 2007

AGENDA ITEM NO.: **6**

Action Requested: ACCEPT

REGIONAL ARTERIAL SYSTEM UPDATE: PROPOSED MODIFICATIONS File Number 3000500

Recommendation

The Transportation Committee is asked to accept the revised Regional Arterial System for use in the Draft 2007 Regional Transportation Plan.

Introduction

The Regional Arterial System (RAS) constitutes the portion of the local street and road network which, in conjunction with the system of highways and transit services, provides for significant mobility throughout the region and accessibility between communities. First added to the Regional Transportation Plan (RTP) in 1989, it was last updated in 2003 as part of MOBILITY 2030.

At its October 20, 2006, meeting, the Transportation Committee approved the revised RAS screening criteria and directed staff to issue a call for modifications to the RAS. The intent of the updated criteria was to simplify the evaluation process without altering the basic function of the RAS. A call for modifications to the RAS was sent to all 18 cities and the County of San Diego. Submittals were due to SANDAG on December 15, 2006. Eight of the 19 jurisdictions submitted requests to add or modify 126 arterials and delete one arterial from the RAS.

The RAS update is particularly important this time because the *TransNet* Extension included an impact fee that must be spent on improvements to regional arterials. During the RAS updated process, SANDAG conferred with several agencies, and there is mutual agreement on the proposed changes to the RAS from all parties who submitted requests for modifications.

Discussion

Regional Arterial System Update

Regional planning agencies originally developed the RAS at the request of the Federal Highway Administration, identifying important arterials that support the regional highway network. The regional arterial network would provide additional capacity, especially in diverting intercommunity trips off the freeways. The RAS is modified as needed during each update of the RTP.

As part of the 2007 RTP process, RAS screening criteria were developed by the Transportation Project Evaluation Criteria Ad Hoc Working Group (TPEC). The TPEC is composed of representatives from a number of standing SANDAG working groups, including the Bicycle-Pedestrian Working Group (BPWG), Cities/County Transportation Advisory Committee (CTAC), Regional Freight Working Group, Regional Housing Working Group, Regional Planning Technical Working Group,

Regional Planning Stakeholders Working Group (SWG), as well as staff from the Caltrans, North County Transit District, and Metropolitan Transit System. The Transportation Committee approved the revised RAS screening criteria at its October 20, 2006, meeting.

Regional Arterial System Screening Criteria

Regional arterials are longer continuous routes that provide accessibility between communities within the region and which also may allow subregional trips to avoid freeway travel. In order to qualify for the updated RAS, arterials must meet at least one of four approved criteria shown below. The first criterion is that the arterial is already included in the existing RAS. Due to the passage of the *TransNet* sales tax extension, TPEC felt that unless a jurisdiction requested deletion of an arterial already in the RAS, the existing RAS should stay in place. This is because the *TransNet* Extension included an impact fee that was calculated based on the cost of improvements to the regional arterials included in MOBILITY 2030. Any additions to the network must meet one of the remaining three criteria:

- Provides parallel capacity in high-volume corridors to supplement freeways, state highways, and/or other regional arterials *(Corridor).*

- Provides capacity and a direct connection between freeways or other regional arterials, ensuring continuity of the freeway, state highways, and arterial network throughout the region without duplicating other regional facilities *(Cross-corridor).*

- Provides all or part of the route for existing or planned regional and/or corridor transit service that provides headways of 15 minutes or less during the peak period.

Regional Arterial System Evaluation

Eight jurisdictions submitted requests to add or modify 126 arterials and delete one arterial from the RAS. A map of the proposed modifications to the RAS is shown on Attachment 1. SANDAG staff evaluated all 126 arterials that were submitted against the criteria. The proposed modifications to the RAS were reviewed with CTAC, SWG, and the *TransNet* Independent Taxpayer Oversight Committee. SWG was generally supportive of the staff recommended RAS additions/modifications and had minor comments about the proposed modifications. Additional meetings were held with CTAC to further discuss the evaluation of arterials not initially recommended to be included in the RAS update. SANDAG staff and CTAC members agreed on a final evaluation that recommends 86 arterials be modified or added to the RAS. Of the 86 recommended to be added, 22 are extensions of existing regional arterials and 39 qualified as a result of regional transit service. The revised RAS would grow from 853 miles to 1,038 miles.

Forty arterials are not recommended to be added to the RAS. The arterials not recommended do not provide parallel capacity or connect to other regional arterials without duplicating other facilities. Additionally, these arterials are not considered regional in nature and do not serve regional or corridor transit service with headways of 15 minutes or less. A summary of recommended additions and modifications are shown in Attachment 2. It also is recommended by the City of Escondido that Mission Avenue from Centre City Parkway to Broadway be deleted from the RAS. Additionally, a list of existing regional arterials by jurisdiction is included as Attachment 3.

SANDAG conferred with several agencies regarding the evaluation of proposed modifications to the RAS. There is agreement on the recommended changes to the RAS among all agencies who requested additions or modifications.

Regional Arterial System Improvements

The *TransNet* Extension, passed by the voters as Proposition A in 2004, included the Regional Transportation Congestion Improvement Program (RTCIP). The purpose of the RTCIP is to ensure that new development directly invests in the region's transportation system to offset the negative impacts of growth on congestion and mobility. The RTCIP provides for the local collection of a fee per new dwelling unit starting by July 1, 2008, toward the RAS and related regional transportation facility improvements. Since the revenues generated from this new funding program are to be spent on improvements to the RAS, it is important to reevaluate and update the regional arterial network to provide the basis for these future expenditures. Improvements on the RAS can include new or widened arterials, traffic signal coordination and other traffic improvements, freeway interchange and related freeway improvements, railroad grade separations, and improvements required for express bus and rail transit.

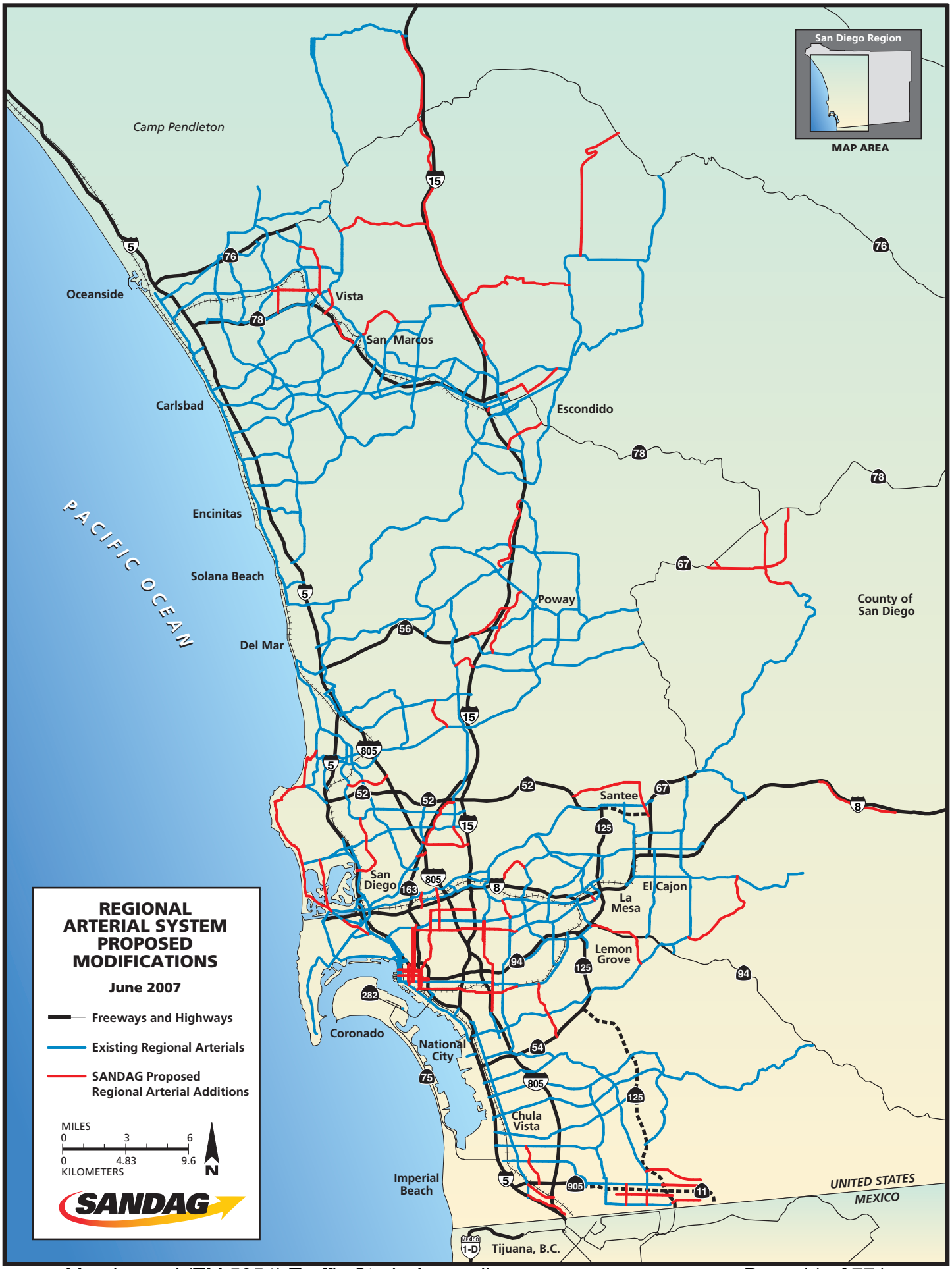
Next Steps

The updated RAS network will be included in the Draft 2007 RTP scheduled for release by the Board of Directors at its June 22, 2007, meeting.

BOB LEITER
Director of Land Use and Transportation Planning

Attachments: 1. Regional Arterial System Proposed Modifications Map
2. 2006 Regional Arterial System Update Summary of Proposed Additions and Modifications
3. Regional Arterials in MOBILITY 2030 by Jurisdiction

Key Staff Contact: Heather Werdick, (619) 699-6967, hwe@sandag.org


San Diego Region
MAP AREA
Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
Encinitas
Solana Beach
Del Mar
PACIFIC OCEAN
Poway
County of San Diego
Santee
El Cajon
La Mesa
Lemon Grove
San Diego
Coronado
National City
Chula Vista
Imperial Beach
UNITED STATES
MEXICO
Tijuana, B.C.
REGIONAL ARTERIAL SYSTEM PROPOSED MODIFICATIONS
June 2007
Freeways and Highways
Existing Regional Arterials
SANDAG Proposed Regional Arterial Additions
MILES
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KILOMETERS
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SANDAG

2006 Regional Arterial System Update
Summary of Proposed Additions/Modifications

	Arterial	Limits	Jurisdiction	SANDAG Recommended*
1	State Route 282	Alameda Avenue to Orange Street	Coronado	-
2	Autopark Way/Vineyard	Interstate 15 to Citracado Parkway	Escondido	-
3	Felicita/17th Avenue	Interstate 15 to State Route 78	Escondido	C
4	Grand Avenue	Second Avenue to State Route 78	Escondido	-
5	Hale Avenue	Washington Avenue to Interstate 15	Escondido	T
6	Lincoln/Ash Parkway	Broadway to Washington Avenue	Escondido	C
7	Mission Avenue	State Route 78 to El Norte Parkway	Escondido	-
8	Washington Avenue	State Route 78 to El Norte Parkway	Escondido	C
9	Baltimore Drive	Lake Murray Boulevard to University Avenue	La Mesa	-
10	Jackson Drive	La Mesa Boulevard to North City Limits	La Mesa	C
11	1st Avenue	Harbor Drive to Interstate 5	San Diego City	T
12	4th Avenue	Market Street to Washington Street	San Diego City	T
13	5th Avenue	Market Street to Washington Street	San Diego City	T
14	6th Avenue	Ash Street to State Route 163	San Diego City	T
15	10th Avenue	State Route 163 to Imperial Avenue	San Diego City	T
16	11th Avenue	G Street to State Route 163	San Diego City	T
17	47th Street	State Route 94 to Interstate 805	San Diego City	P, T
18	A Street	11th Avenue to Kettner Boulevard	San Diego City	C
19	Adams Avenue	Park Boulevard to Interstate 15	San Diego City	T
20	Aero Drive	State Route 163 to Interstate 15	San Diego City	C
21	Airway Road	Caliente to State Route 125	San Diego City	T
22	Ash Street	Harbor Drive to 10th Avenue	San Diego City	C
23	Auto Circle	Camino Del Rio North to Camino Del Rio South	San Diego City	C
24	Beyer Boulevard	Dairy Mart Road to East Beyer Boulevard	San Diego City	T
25	Beyer Way	Main Street to Palm Avenue	San Diego City	T
26	Britannia Boulevard	Otay Mesa Road to Siempre Viva Road	San Diego City	T
27	Broadway	Harbor Drive to 11th Avenue	San Diego City	T
28	Camino Ruiz	Mira Mesa Boulevard to Miramar Road	San Diego City	T
29	Carmel Mountain Road	Camino Del Norte - Rancho Penasquitos Boulevard	San Diego City	C
30	Carroll Canyon Road	Black Mountain Road to Scripps Ranch Parkway	San Diego City	-
31	Carroll Canyon Road	Sorrento Valley Road to Pacific Heights Boulevard	San Diego City	-
32	Clairemont Drive	Clairemont Mesa Boulevard to Interstate 5	San Diego City	T
33	Clairemont Mesa Boulevard	Interstate 15 to Santo Road	San Diego City	-
34	Collwood Boulevard	Montezuma Road to El Cajon Boulevard	San Diego City	T
35	Dennery Road	Palm Avenue to Del Sol Boulevard	San Diego City	-
36	East Beyer Boulevard	Camino de la Plaza to Beyer Boulevard	San Diego City	-
37	Euclid Avenue	Home Avenue to El Cajon Boulevard	San Diego City	-
38	F Street	State Route 94 to 10th Avenue	San Diego City	T
39	Fairmount Avenue	El Cajon Boulevard to State Route 94	San Diego City	P, T
40	Front Street	Interstate 5 to Market Avenue	San Diego City	T
41	G Street	State Route 94 to 10th Avenue	San Diego City	T
42	Governor Drive	Interstate 805 to Regents Road	San Diego City	P
43	Heritage Road	Otay Valley Road to City of Chula Vista	San Diego City	C
44	Home Avenue	State Route 94 to Euclid Avenue	San Diego City	-
45	Imperial Avenue	Park Boulevard to Valencia Parkway	San Diego City	T

* P: Meets Parallel Capacity Criterion
* C: Meets Direct Connection Criterion
* T: Meets Regional Transit Criterion

	Arterial	Limits	Jurisdiction	SANDAG Recommended*
46	Ingraham Street	Sunset Cliffs Boulevard to Grand Avenue	San Diego City	C, T
47	Kearny Villa Road	Aero Drive to State Route 52	San Diego City	T
48	La Jolla Boulevard	Pearl Street to Turquoise Street	San Diego City	T
49	La Jolla Shores Drive	Torrey Pines Road to North Torrey Pines Road	San Diego City	T
50	La Media Road	Otay Mesa Road to Siempre Viva Road	San Diego City	C
51	Midway Drive	West Point Loma Boulevard to Barnett Avenue	San Diego City	C
52	Mercy Road	Black Mountain Road to Interstate 15	San Diego City	C
53	Mesa College Drive	Interstate 805 to Marlesta Drive	San Diego City	T
54	Mission Boulevard	Loring Street to West Mission Bay Drive	San Diego City	T
55	Mission Center Road	Camino Del Rio North to Friars Road	San Diego City	C
56	Palm Avenue	State Route 75 to Interstate 805	San Diego City	C
57	Park Boulevard	Imperial Avenue to Adams Avenue	San Diego City	T
58	Park Village Road	Black Mountain Road to Camino Del Sur	San Diego City	-
59	Picador Boulevard	Palm Avenue to Interstate 905	San Diego City	T
60	Princess View Drive	Mission Gorge Road to Waring Road	San Diego City	-
61	Qualcomm Way	Interstate 8 to Friars Road	San Diego City	C
62	Rancho Carmel Drive	Carmel Mountain Road to Ted Williams Parkway	San Diego City	P
63	Ruffin Road	Balboa Avenue to Aero Drive	San Diego City	P
64	Sabre Springs Parkway	Ted Williams Parkway to Poway Road	San Diego City	P
65	Santo Road	Aero Drive to State Route 52	San Diego City	-
66	San Ysidro Boulevard	Dairy Mart Road to East Beyer Boulevard	San Diego City	T
67	Scripps Ranch Boulevard	Mira Mesa Boulevard to Pomerado Road	San Diego City	-
68	Texas Street	Interstate 8 to University Avenue	San Diego City	T
69	Tierrasanta Boulevard	Interstate 15 to Santo Road	San Diego City	-
70	Torrey Pines Road	Girard Avenue to La Jolla Parkway	San Diego City	T
71	University Avenue	State Route 163 to City of La Mesa	San Diego City	T
72	Waring Road	College Avenue to Interstate 8	San Diego City	C
73	West Bernardo Drive	Interstate 15 to Bernardo Center Drive	San Diego City	C
74	West Mission Bay Drive	Mission Boulevard to Sunset Cliffs Boulevard	San Diego City	T
75	West Point Loma Boulevard	Sports Arena Boulevard to Sunset Cliffs Boulevard	San Diego City	-
76	Woodman Street	State Route 54 to Imperial Avenue	San Diego City	C
77	Alpine Boulevard	Interstate 8/Dunbar Lane to Interstate 8/Willows Road	San Diego County	P
78	Airway Road	City of San Diego to Loop Road	San Diego County	-
79	Alta Road	Lone Star Road (extension) to Siempre Viva Road	San Diego County	-
80	Briarwood Road	Sweetwater Road to State Route 54	San Diego County	-
81	Buena Creek Road	S. Santa Fe Avenue to Blue Bird Canyon Trail	San Diego County	C
82	Campo Road	Spring Street to Sweetwater Springs/State Route 54	San Diego County	P
83	Chase Avenue/Hillsdale Road	City of El Cajon (Avocado Boulevard) to Jamacha Boulevard	San Diego County	-
84	Cole Grade Road	State Route 76 to Valley Center Road	San Diego County	C
85	Dye Road	State Route 67 to San Vicente Road	San Diego County	P
86	Dye Street	State Route 67 to Dye Road	San Diego County	P
87	Enrico Fermi Road	Lone Star Road (extension) to Siempre Viva Road	San Diego County	-
88	Fury Lane	Avocado Boulevard to Jamacha Road (State Route 54)	San Diego County	-
89	Gopher Canyon Road	E. Vista Way to Old Highway 395	San Diego County	C
90	Keyes Road (Southern Traffic Bypass)	San Vicente Road to State Route 78 (Julian Road)	San Diego County	P

* P: Meets Parallel Capacity Criterion
* C: Meets Direct Connection Criterion
* T: Meets Regional Transit Criterion

Arterial		Limits	Jurisdiction	SANDAG Recommended*
91	Lilac Road	Old Castle Road to Valley Center Road	San Diego County	-
92	Lone Star Road	City of San Diego to Loop Road	San Diego County	P
93	Los Coches Road	Woodside Avenue to Interstate 8	San Diego County	-
94	Mapleview Street (extension)	State Route 67 to Winter Gardens Boulevard	San Diego County	-
95	Monte Vista Drive	City of Vista to Buena Creek Road	San Diego County	-
96	Mountain Meadow Road	Interstate 15/Deer Springs Road to Valley Center Road	San Diego County	C
97	Old Castle Road	Interstate 15/Gopher Canyon Road to Lilac Road	San Diego County	-
98	Old Highway 80	Lake Jennings Park Road to Dunbar Lane	San Diego County	-
99	Old Highway 395/Champagne/N Centre City	E. Mission Road to City of Escondido	San Diego County	P
100	Otay Mesa Road	City of San Diego (Otay Mesa Road) to Loop Road	San Diego County	P
101	Proctor Valley Road/Melody Road	City of Chula Vista (Proctor Valley Road) to State Route 94	San Diego County	-
102	San Pasqual Road	Bear Valley Parkway (City of Escondido) to State Route 78	San Diego County	-
103	San Vicente Road/10th Street	State Route 67 (Main Street) to Wildcat Canyon Road	San Diego County	C
104	Siempre Viva Road	City of San Diego (Siempre Viva Road) to Loop Road	San Diego County	P
105	Stagecoach Lane	E Mission Road to S Mission Road	San Diego County	-
106	Steele Canyon Road	Willow Glen Drive to Campo Road (State Route 94)	San Diego County	-
107	Sweetwater Springs Boulevard	Jamacha Boulevard to State Route 94	San Diego County	C
108	Tavern Road	Interstate 8 to Alpine Boulevard	San Diego County	-
109	Via de la Valle	City of San Diego to Paseo Delicias	San Diego County	C
110	Willow Glen Drive	Jamacha Road to Dehesa Road	San Diego County	C
111	Woodside Avenue	City of Santee (Woodside) to Los Coches Road	San Diego County	-
112	Barham Drive	Twin Oaks Valley Road to Los Amigos	San Marcos	P
113	Nordhal Road	State Route 78 to Knob Hill Road	San Marcos	-
114	Magnolia Avenue	Mast Boulevard to Prospect Avenue/State Route 67	Santee	P
115	Mast Boulevard	State Route 52 to Magnolia Avenue	Santee	P
116	Emerald Drive	Sunset Drive to State Route 78	Vista	C
117	Escondido Avenue	State Route 78 to E. Vista Way	Vista	C
118	Escondido Avenue	S. Melrose Drive to State Route 78	Vista	-
119	La Mirada Drive	Sycamore Avenue to Poinsettia Avenue	Vista	-
120	Olive Avenue	Emerald Drive to Vista Village Drive	Vista	T
121	N. Melrose	State Route 78 to Bobier Drive	Vista	C, T
122	N. Santa Fe Avenue	Main Street to N. Melrose Drive	Vista	T
123	Poinsettia Avenue	Business Park Drive to La Mirada Drive	Vista	-
124	S. Melrose	Park Center Drive to State Route 78	Vista	T
125	Thibodo Road	Mar Vista Drive to Sycamore Avenue	Vista	P
126	Vista Village Drive	State Route 78 to Escondido Avenue	Vista	T

* P: Meets Parallel Capacity Criterion
* C: Meets Direct Connection Criterion
* T: Meets Regional Transit Criterion

Regional Arterials in MOBILITY 2030 by Jurisdiction

	Arterial	Limits	Jurisdiction
1	Cannon Road	Carlsbad Boulevard to Buena Vista Drive	Carlsbad
2	Carlsbad Boulevard	Eaton Street to La Costa Avenue	Carlsbad
3	Carlsbad Village Drive	Interstate 5 to Coast Boulevard/Coast Highway	Carlsbad
4	College Boulevard	City of Oceanside to Palomar Airport Road	Carlsbad
5	El Camino Real (S-11)	State Route 78 to Olivenhain	Carlsbad
6	Faraday Avenue	Melrose Drive to College Boulevard	Carlsbad
7	La Costa Avenue	Interstate 5 to El Camino Real	Carlsbad
8	Melrose Drive	City of Vista to Rancho Santa Fe Road	Carlsbad
9	Olivenhain Road	Los Pinos Circle to Rancho Santa Fe Road	Carlsbad
10	Palomar Airport Road	Carlsbad Boulevard to Business Park Drive	Carlsbad
11	Poinsettia Lane	Carlsbad Boulevard to Melrose Drive	Carlsbad
12	Rancho Santa Fe Road	Melrose Drive to Olivenhain Road	Carlsbad
13	Bonita Road	1st Avenue to Interstate 805	Chula Vista
14	Broadway	C Street to Main Street	Chula Vista
15	E Street	Interstate 5 to Bonita Road	Chula Vista
16	East H Street	Hilltop Drive to Mount Miguel Road	Chula Vista
17	H Street	Interstate 5 to Hilltop Drive	Chula Vista
18	Hunte Parkway	Proctor Valley Road to State Route 125	Chula Vista
19	L Street	Interstate 5 to Interstate 805	Chula Vista
20	La Media Road	Telegraph Canyon Road to State Route 905	Chula Vista
21	Main Street	Interstate 5 to Interstate 805	Chula Vista
22	Olympic Parkway	Interstate 805 to State Route 125	Chula Vista
23	Orange Avenue	Palomar Street to Interstate 805	Chula Vista
24	Otay Lakes Road	Bonita Road to Wueste Road	Chula Vista
25	Otay Valley Road (Main Street)	Interstate 805 to Heritage Road	Chula Vista
26	Palomar Street	Interstate 5 to Orange Avenue	Chula Vista
27	Paseo Ranchero (Heritage Road)	East H Street to Otay Mesa Road	Chula Vista
28	Proctor Valley Road	Mt. Miguel Road to Hunte Parkway	Chula Vista
29	Telegraph Canyon Road	Interstate 805 to Otay Lakes Road	Chula Vista
30	Willow Street	Sweetwater Road to Bonita Road	Chula Vista
31	State Route 75	City of San Diego to City of Imperial Beach	Coronado
32	Via de la Valle	Highway 101 to Jimmy Durante Boulevard	Del Mar
33	2nd Street	Greenfield Drive to Main Street	El Cajon
34	Avocado Avenue	Main Street to Chase Avenue	El Cajon
35	Avocado Boulevard	Chase Avenue to Dewitt Court	El Cajon
36	Ballantyne Street	Broadway to Main Street	El Cajon
37	Bradley Avenue	Marshall Avenue to County of San Diego	El Cajon
38	Broadway	State Route 67 to East Main Street	El Cajon
39	Cuyamaca Street	City of Santee to Marshall Avenue	El Cajon
40	E Main Street	Broadway to Greenfield Drive	El Cajon
41	El Cajon Boulevard	Chase Avenue to Washington Avenue	El Cajon
42	Fletcher Parkway	City of La Mesa to State Route 67	El Cajon
43	Greenfield Drive	East Main Street to Interstate 8	El Cajon
44	Jamacha Road	Main Street to Grove Road	El Cajon
45	Marshall Avenue	Cuyamaca to Fletcher Parkway	El Cajon

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

	Arterial	Limits	Jurisdiction
46	Marshall Avenue	Fletcher Parkway to West Main Street	El Cajon
47	Marshall Avenue	West Main Street to Washington Avenue	El Cajon
48	Navajo Road	Fanita Drive to Fletcher Parkway	El Cajon
49	Washington Avenue	El Cajon Boulevard to Jamacha Road	El Cajon
50	West Main Street	Interstate 8 to Marshall Avenue	El Cajon
51	Coast Highway	City of Carlsbad to City of Solana Beach	Encinitas
52	El Camino Real	Olivenhain to Manchester Avenue	Encinitas
53	Encinitas Boulevard	Coast Highway 101 to El Camino Real	Encinitas
54	La Costa Avenue	Coast Highway 101 to Interstate 5	Encinitas
55	Leucadia Boulevard	Coast Highway 101 to El Camino Real	Encinitas
56	Manchester Avenue	El Camino Real to Interstate 5	Encinitas
57	Olivenhain Road	El Camino Real to Los Pinos Circle	Encinitas
58	Barham Drive	Los Amigos to Mission Road	Escondido
59	Centre City Parkway	Country Club Lane (Interstate 15) to South Escondido Boulevard/South Centre City Parkway (Interstate 15)	Escondido
60	Citracado Parkway	Centre City Parkway to State Route 78	Escondido
61	East Valley Parkway	Broadway to Valley Center Grade Road	Escondido
62	East Via Rancho Parkway	Broadway to Sunset Drive	Escondido
63	El Norte Parkway	Nordahl Road to Washington Avenue	Escondido
64	El Norte Parkway	Woodland Parkway to Rees Road	Escondido
65	Grand Avenue/2nd Avenue/Valley Boulevard	West Valley Parkway to East Valley Parkway	Escondido
66	Mission Avenue	Andreason Drive to Centre City Parkway	Escondido
67	Mission Road	Barham Drive to Andreason Drive	Escondido
68	Via Rancho Parkway	Del Dios Highway to Sunset Drive	Escondido
69	Washington Avenue	El Norte Parkway to East Valley Parkway	Escondido
70	West Valley Parkway	Claudan Road to Broadway	Escondido
71	State Route 75	City of Coronado to City of San Diego	Imperial Beach
72	70th Street	University Avenue to Colony Road	La Mesa
73	70th Street	Saranac Street to Interstate 8	La Mesa
74	El Cajon Boulevard	73rd Street to Interstate 8	La Mesa
75	Fletcher Parkway	Interstate 8 to City of El Cajon	La Mesa
76	Grossmont Center Drive	Interstate 8 to Fletcher Parkway	La Mesa
77	La Mesa Boulevard	University Avenue to Interstate 8	La Mesa
78	Lake Murray	Interstate 8 to Dallas Street	La Mesa
79	Massachusetts Avenue	State Route 94 to University Avenue	La Mesa
80	Spring Street	Interstate 8 to State Route 125	La Mesa
81	University Avenue	69th Street to La Mesa Boulevard	La Mesa
82	Broadway	Spring Street to Lemon Grove Avenue	Lemon Grove
83	College Avenue	Livingston Street to Federal Boulevard	Lemon Grove
84	Federal Boulevard	College Avenue to State Route 94	Lemon Grove
85	Lemon Grove Avenue	Viewcrest to State Route 94	Lemon Grove
86	Massachusetts Avenue	Broadway to State Route 94	Lemon Grove
87	Massachusetts Avenue	Lemon Grove Avenue to Broadway	Lemon Grove
88	Sweetwater Road	Broadway to Troy Street	Lemon Grove
89	30th Street	National City Boulevard to 2nd Street	National City
90	Euclid Avenue	Cervantes Avenue to Sweetwater Road	National City
91	Harbor Drive	City of San Diego to Interstate 5	National City

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

	Arterial	Limits	Jurisdiction
92	National City Boulevard	Division Street to 30th Street	National City
93	Palm Avenue	Interstate 805 to 18th Street	National City
94	Paradise Valley Road	8th Street to Plaza Boulevard	National City
95	Plaza Boulevard	National City Boulevard to 8th Street	National City
96	Sweetwater Road	2nd Street to Plaza Bonita Center Way	National City
97	Coast Highway	Interstate 5 to Eaton Street	Oceanside
98	College Boulevard	North River Road to State Route 78	Oceanside
99	El Camino Real	Douglas Drive to State Route 78	Oceanside
100	Melrose Drive	State Route 76 to Rancho Santa Fe Road	Oceanside
101	Mission Avenue	Coast Highway to Frazee Road	Oceanside
102	North River Road	Douglas Drive to State Route 76	Oceanside
103	North Santa Fe Avenue	State Route 76 to Melrose Drive	Oceanside
104	Oceanside Boulevard	Hill Street to Melrose Drive	Oceanside
105	Rancho Del Oro Drive	State Route 78 to State Route 76	Oceanside
106	Vandegrift Boulevard	North River Road to Camp Pendleton	Oceanside
107	West Vista Way	Jefferson Street to Thunder Drive	Oceanside
108	Camino del Norte	World Trade Drive to Pomarado Road	Poway
109	Community Road	Twin Peaks Road to Scripps Poway Parkway	Poway
110	Espola Road	Summerfield Lane to Poway Road	Poway
111	Pomerado Road	Stonemill Drive to Gateway Park Road	Poway
112	Poway Road	Springhurst Drive to State Route 67	Poway
113	Scripps Poway Parkway	Springbrook to Sycamore Canyon Road	Poway
114	Ted Williams Parkway	Pomerado Road to Twin Peaks Road	Poway
115	Twin Peaks Road	Pomarado Road to Espola Road	Poway
116	32nd Street	Harbor Drive to Wabash Boulevard	San Diego City
117	54th Street	El Cajon Boulevard to Euclid Avenue	San Diego City
118	70th Street	Colony Road to Saranac Street	San Diego City
119	Balboa Avenue	Mission Bay Drive to Interstate 15	San Diego City
120	Barnett Avenue	Lytton Street to Pacific Highway	San Diego City
121	Bernardo Center Drive	Camino Del Norte to Interstate 15	San Diego City
122	Beyer Boulevard	Main Street to Dairy Mart Road	San Diego City
123	Black Mountain Road	Del Mar Heights to Carroll Canyon Road	San Diego City
124	Cabrillo Memorial Drive	Cochran Street to Cabrillo National Monument	San Diego City
125	Camino del Norte	Camino San Bernardo to World Trade Drive	San Diego City
126	Camino Del Rio North	Mission Center Road to Mission Gorge Road	San Diego City
127	Camino Ruiz	State Route 56 to Camino del Norte	San Diego City
128	Camino Santa Fe Avenue	Sorrento Valley Boulevard to Miramar Road	San Diego City
129	Canon Street	Rosecrans Street to Catalina Boulevard	San Diego City
130	Carmel Mountain Road	Sorrento Valley Road to El Camino Real	San Diego City
131	Carmel Valley Road	North Torrey Pines Road to El Camino Real	San Diego City
132	Catalina Boulevard	Canon Street to Cochran Street	San Diego City
133	Clairemont Mesa Boulevard	Interstate 15 to Regents Road	San Diego City
134	College Avenue	Navajo Road to Livingston Street	San Diego City
135	Convoy Street	Linda Vista Road to State Route 52	San Diego City
136	Ceasar E. Chavez Pkwy	Interstate 5 to Harbor Drive	San Diego City
137	Dairy Mart Road	State Route 905 to Interstate 5	San Diego City
138	Del Dios Highway	Via Rancho Parkway to Claudan Road	San Diego City

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

	Arterial	Limits	Jurisdiction
139	Del Mar Heights Road	Interstate 5 to Carmel Valley Road	San Diego City
140	El Cajon Boulevard	Park Boulevard to 73rd Street	San Diego City
141	El Camino Real	Via de la Valle to Carmel Mountain Road	San Diego City
142	Euclid Avenue	54th Street to Cervantes Avenue	San Diego City
143	Fairmount Avenue	Interstate 8 to El Cajon Boulevard	San Diego City
144	Friars Road	Sea World Drive to Mission Gorge Road	San Diego City
145	Garnet Avenue	Balboa Avenue to Mission Bay Drive	San Diego City
146	Genesee Avenue	N. Torrey Pines Road to State Route 163	San Diego City
147	Gilman Drive	La Jolla Village Drive to Interstate 5	San Diego City
148	Grand Avenue	Mission Boulevard to Mission Bay Drive	San Diego City
149	Grape Street	North Harbor Drive to Interstate 5	San Diego City
150	Harbor Drive	Pacific Highway to City of National City	San Diego City
151	Hawthorn Street	Interstate 5 to North Harbor Drive	San Diego City
152	Heritage Road	Otay Mesa Road to Siempre Viva Road	San Diego City
153	Heritage Road	Otay Valley Road to City of Chula Vista	San Diego City
154	Imperial Avenue	Valencia Parkway to Lisbon Street	San Diego City
155	Kearny Villa Road	Pomarado Road to Waxie Way	San Diego City
156	Kettner Boulevard	Interstate 5 to India Street	San Diego City
157	La Jolla Parkway	Torrey Pines Road to Interstate 5	San Diego City
158	La Jolla Village Drive	North Torrey Pines Road to Interstate 805	San Diego City
159	Lake Murray Boulevard	Dallas Street to Navajo Road	San Diego City
160	Laurel Street	North Harbor Drive to Interstate 5	San Diego City
161	Lemon Grove Avenue	Lisbon Street to Viewcrest	San Diego City
162	Linda Vista Road	Morena Boulevard to Convoy Street	San Diego City
163	Lytton Street	Rosecrans Street to Barnett Avenue	San Diego City
164	Market Street	Harbor Drive to Euclid Avenue	San Diego City
165	Mira Mesa Boulevard	Interstate 805 to Interstate 15	San Diego City
166	Miramar Road	Interstate 805 to Interstate 15	San Diego City
167	Mission Bay Drive	Grand Avenue to Interstate 5	San Diego City
168	Mission Gorge Road	Interstate 8 to Highridge Road	San Diego City
169	Montezuma Road	Fairmount Avenue to El Cajon Boulevard	San Diego City
170	Morena Boulevard	Balboa Avenue to Interstate 8	San Diego City
171	Navajo Road	Waring Road to Fanita Drive	San Diego City
172	Nimitz Boulevard	Interstate 8 to Harbor Drive	San Diego City
173	North Harbor Drive	Rosecrans Street to Grape Street	San Diego City
174	North Torrey Pines Road (S-21)	Carmel Valley Road to La Jolla Village Drive	San Diego City
175	Ocean View Hills Parkway	Interstate 805 to State Route 905	San Diego City
176	Otay Mesa Road	State Route 905 to State Route 125	San Diego City
177	Pacific Highway	Sea World Drive to Harbor Drive	San Diego City
178	Paradise Valley Road	Plaza Boulevard to Meadowbrook Drive	San Diego City
179	Pomerado Road	Interstate 15 (north) to Interstate 15 (south)	San Diego City
180	Poway Road	Interstate 15 to Springhurst Drive	San Diego City
181	Rancho Bernardo Road	Interstate 15 to Summerfield Lane	San Diego City
182	Rancho Penasquitos Boulevard	State Route 56 to Interstate 15	San Diego City
183	Regents Road	Genesee Avenue to Clairemont Mesa Boulevard	San Diego City
184	Rosecrans Street	Interstate 8 to Canon Street	San Diego City
185	Ruffin Road	Kearny Villa Road to Balboa Avenue	San Diego City

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

	Arterial	Limits	Jurisdiction
186	Scripps Poway Parkway	Interstate 15 to Springbrook Drive	San Diego City
187	Sea World Drive	W Mission Bay Drive to Morena Boulevard	San Diego City
188	Siempre Viva Road	Heritage Road to State Route 905	San Diego City
189	Sorrento Valley Boulevard	Sorrento Valley Road to Camino Santa Fe Avenue	San Diego City
190	Sports Arena Boulevard	Interstate 8 to Rosecrans Street	San Diego City
191	Sunset Cliffs Boulevard	Interstate 8 to West Mission Bay Drive	San Diego City
192	Ted Williams Parkway	Interstate 15 to Pomerado Road	San Diego City
193	University Avenue	54th Street to 69th Street	San Diego City
194	Valencia Parkway	Market Street to Imperial Avenue	San Diego City
195	Via de la Valle	Jimmy Durante Boulevard to El Camino Real	San Diego City
196	Vista Sorrento Parkway	Sorrento Valley Boulevard to Carmel Mountain Road	San Diego City
197	Wabash Boulevard	32nd Street to Interstate 5	San Diego City
198	Washington Street	Pacific Highway to Park Boulevard	San Diego City
199	Avocado Boulevard	Dewitt Court to State Route 94	San Diego County
200	Bear Valley Parkway	City of Escondido (north) to City of Escondido (south)	San Diego County
201	Bonita Road	Interstate 805 to San Miguel Road	San Diego County
202	Borrego Springs/Yaqui Pass Road (S-3)	Palm Canyon Drive (S-22) to State Route 78	San Diego County
203	Bradley Avenue	Wing Avenue to Winter Garden Boulevard	San Diego County
204	Buckman Springs/Sunrise Highway (S-1)	State Route 94 to State Route 79	San Diego County
205	Buena Creek Road	Blue Bird Canyon Trail to Twin Oaks Valley Road	San Diego County
206	Camino del Norte	Rancho Bernardo Road to City of San Diego	San Diego County
207	Citracado Parkway	Greenwood Place to Interstate 15	San Diego County
208	Deer Springs Road	Twin Oaks Valley Road to Interstate 15	San Diego County
209	Dehesa Road	Jamacha Road to Harbison Canyon Road	San Diego County
210	Dehesa Road*	Harbisonn Canyon Road to Sycuan Road	San Diego County
211	Del Dios Highway	Via Rancho Pkway to Paseo De Delicias	San Diego County
212	East Vista Way	State Route 76 to City of Vista	San Diego County
213	El Norte Parkway	Rees Road to Nordahl Road	San Diego County
214	Euclid Avenue	City of National City to City of National City	San Diego County
215	Gamble Lane	Eucalyptus Avenue to City of Escondido	San Diego County
216	Jamancha Road	City of El Cajon to State Route 94	San Diego County
217	Jamancha Road	State Route 125 to State Route 94	San Diego County
218	Lake Jennings Park Road	State Route 67 to Interstate 8	San Diego County
219	Lake Wohlford Road	Valley Center Road (north) to Valley Center Road (south)	San Diego County
220	Las Posas Road	City of San Marcos to Buena Creek Road	San Diego County
221	Mapleview Street	State Route 67 to Lake Jennings Road	San Diego County
222	Mar Vista Drive	City of Oceanside to City of Vsita	San Diego County
223	Melrose Drive	City of Oceanside to City of Vsita	San Diego County
224	Mission Road (S-13)	Interstate 15 to State Route 76	San Diego County
225	Montezuma Valley/Palm Caynon (S-22)	State Route 79 to Imperial County Line	San Diego County
226	Nordahl Road	El Norte to City of San Marcos	San Diego County
227	Old Highway 80	Buckman Springs Road to Interstate 8 (In-ko-pah)	San Diego County
228	Old Highway 80	State Route 79 to Sunrise Highway	San Diego County
229	Otay Lakes Road	Wueste Road to State Route 94	San Diego County
230	Paradise Valley Road	City of San Diego to Sweetwater Road	San Diego County
231	Proctor Valley Road	Mount Miguel Road to Rocking Horse Drive	San Diego County
232	Rancho Bernardo Road	City of San Diego (west) to City of San Diego (east)	San Diego County

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

	Arterial	Limits	Jurisdiction
233	San Felipe Road/Overland Route (S-2)	County Route S-22 to Imperial County Line	San Diego County
234	Scripps Poway Parkway	Sycamore Canyon Road to State Route 67	San Diego County
235	South Santa Fe Avenue	City of Vista to City of San Marcos	San Diego County
236	Sunrise Highway	State Route 79 to Interstate 8	San Diego County
237	Sweetwater Road (Bonita)	Willow Street to City of National City	San Diego County
238	Sweetwater Road (Spring Valley)	Jamacha Boulevard to Broadway	San Diego County
239	Valley Center Road	State Route 76 to City of Escondido	San Diego County
240	Valley Center New Northern E to W Road	Cole Grade Road to Old Highway 395	San Diego County
241	Via de la Valle	City of San Diego to Paseo Delicias	San Diego County
242	Via Rancho Parkway	Del Dios Highway to City of Escondido	San Diego County
243	Wildcat Canyon Road*	Mapleview Street to San Vicente Road	San Diego County
244	Willow Glen Drive	Jamacha Road to Dehesa Road	San Diego County
245	Willows Road	Interstate 8 to Viejas Casino	San Diego County
246	Winter Gardens Boulevard	State Route 67 to 2nd Street	San Diego County
247	Barham Drive	Twin Oaks Valley Road to Los Amigos	San Marcos
248	Borden Road	Las Posas Road to Woodland Parkway	San Marcos
249	Buena Creek Road	Twin Oaks Valley Road to Sunny Vista Lane	San Marcos
250	Discovery Street	San Marcos Boulevard to Twin Oaks Valley Road	San Marcos
251	Las Posas Road	West San Marcos Boulevard to North City Limits	San Marcos
252	Mission Road	Pacific Street to Barham Drive	San Marcos
253	San Elijo Road	Twin Oaks Valley Road to Rancho Santa Fe Road	San Marcos
254	Rancho Santa Fe Road	Mission Road to Melrose Drive	San Marcos
255	San Marcos Boulevard	Business Park Drive to Mission Road	San Marcos
256	South Santa Fe Avenue	Smilax Road to Pacific Street	San Marcos
257	Twin Oaks Valley Road	Deer Springs Road to Questhaven Road	San Marcos
258	Woodland Parkway	Barham Drive to El Norte Parkway	San Marcos
259	Cuyamaca Street	Mission Gorge Road to City of El Cajon	Santee
260	Mission Gorge Road	City of San Diego to Magonia Avenue	Santee
261	Woodside Avenue	Magnolia Avenue to State Route 67	Santee
262	Coast Highway	City of Encinitas to City of Del Mar	Solana Beach
263	Lomas Santa Fe Avenue	Interstate 5 to Coast Highway	Solana Beach
264	Bobier Drive	Melrose Drive to East Vista Way	Vista
265	Broadway	West Vista Way to South Santa Fe Avenue	Vista
266	Cannon Road	South Melrose Drive to State Route 78	Vista
267	East Vista Way	Vista Village Drive to Barsby Street	Vista
268	Mar Vista Drive	Buena Vista Drive to State Route 78	Vista
269	South Santa Fe Avenue	Broadway to Montgomery Drive	Vista
270	Sycamore Avenue	South Santa Fe Avenue to South Melrose Drive	Vista
271	West Vista Way	Thunder Drive to Vista Village Drive	Vista

* included in Regional Arterial System contingent upon being designated as a 4-lane arterial by the County of San Diego.

401 B Street, Suite 800
San Diego, CA 92101-4231
(619) 699-1900
Fax (619) 699-1905
www.sandag.org

May 24, 2007 3000400

TO: Interested Agencies and Individuals

FROM: SANDAG Staff

SUBJECT: Notice of Preparation of an Environmental Impact Report for the 2007 Regional Transportation Plan (RTP)

SANDAG, as lead agency, will prepare an Environmental Impact Report (EIR) for the above-referenced project. SANDAG needs to know your views, or the views of your agency, as to the scope and content of the environmental information that will be addressed in the EIR. The project description is contained in the attached material.

Public scoping meetings will be held during the Cities/County Advisory Committee meeting scheduled for Thursday, June 7, 2007, at 9:45 a.m. and the Regional Planning Technical Working Group meeting scheduled for Thursday, June 14, 2007, at 1:15 p.m. Both meetings will be held at SANDAG and copies of the agendas can be found one week prior to the meetings on the SANDAG Web site at www.sandag.org.

Public input will be taken at these meetings. In addition, public input can be provided in writing at the meeting or can be sent via email to stu@sandag.org.

Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your response to Shelby Tucker, Associate Regional Planner, at the address shown above. Please include the name of a contact person in your agency, if appropriate.

ST/cd

Attachments:
1. Project Description
2. 2030 Highway Network
3. 2030 Transit Network

Environmental Impact Report
2007 Regional Transportation Plan
Project Description

May 24, 2007

Background and Overview

The San Diego Association of Governments (SANDAG) is currently preparing a Regional Transportation Plan (RTP) for the San Diego Region and an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA). The RTP addresses all forms, or modes, of transportation including automobiles, transit, bicycles, pedestrians, and intercity railroads. The RTP contains public policies, strategies, projects, and programs aimed at meeting the diverse mobility needs of the growing San Diego region through the year 2030.

In accordance with state and federal guidelines, the RTP is updated approximately every four years. The last comprehensive EIR on the RTP was conducted in 2003 for the 2030 RTP (MOBILITY 2030). A new EIR for the 2007 RTP is necessary to adequately evaluate potentially significant environmental effects of the plan and to indicate the manner in which such significant effects can be avoided or mitigated. This Notice of Preparation (NOP) is intended to alert regulatory and trustee agencies, interested agencies, and individuals of the preparation of the 2007 RTP EIR. Comments regarding the scope of the EIR received during the 30-day NOP review period will be incorporated, as appropriate, in the environmental document.

Similar to MOBILITY 2030, the 2007 RTP will focus on regional mobility as opposed to addressing each mode of transportation individually. It will address four major components of improving mobility:

1. Land use changes;
2. Systems development;
3. Systems management; and
4. Demand management.

Strategies, projects, and programs in each of these areas will be identified. The 2007 RTP also will identify a Reasonably Expected Revenue Scenario, which will include facilities that can reasonably be implemented through 2030. The Reasonably Expected plan will consist of major highways, regional transit services, and selected regional arterials. This transportation network will serve as the core of the 2007 RTP and will be the highest priority for regional transportation funding. The 2007 RTP also will include actions needed to implement the plan as well as regular monitoring of the plan's improvements. The baseline land use assumption used for the RTP will rely on existing land use plans adopted (or under consideration) by the local jurisdictions in the San Diego region.

Issues Addressed in the EIR

The EIR will analyze the project's impacts on the physical environment. The EIR will address how the project impacts the following issue areas:

1. Land Use
2. Social Environment
3. Visual Resources
4. Transportation
5. Air Quality (including Greenhouse Gas Emissions)
6. Noise
7. Energy
8. Geology/Paleontology
9. Hydrology/Water Resources
10. Biological Resources
11. Cultural Resources

Alternatives Analyzed in the EIR

SANDAG will evaluate several alternatives in the EIR. Each alternative will be compared to the proposed project for its potential to achieve the goals of the 2007 RTP while reducing potentially adverse regional environmental impacts. In addition to the project, which will assume a transportation network that is developed from the Reasonably Expected Revenue Scenario, the EIR is proposed to evaluate four alternatives as described below.

1. No Project Alternative – The No Project Alternative is required by CEQA. For this EIR, the No Project Alternative is defined as a transportation network that includes those projects that have already received funding, are scheduled for funding, and/or have received environmental clearance.

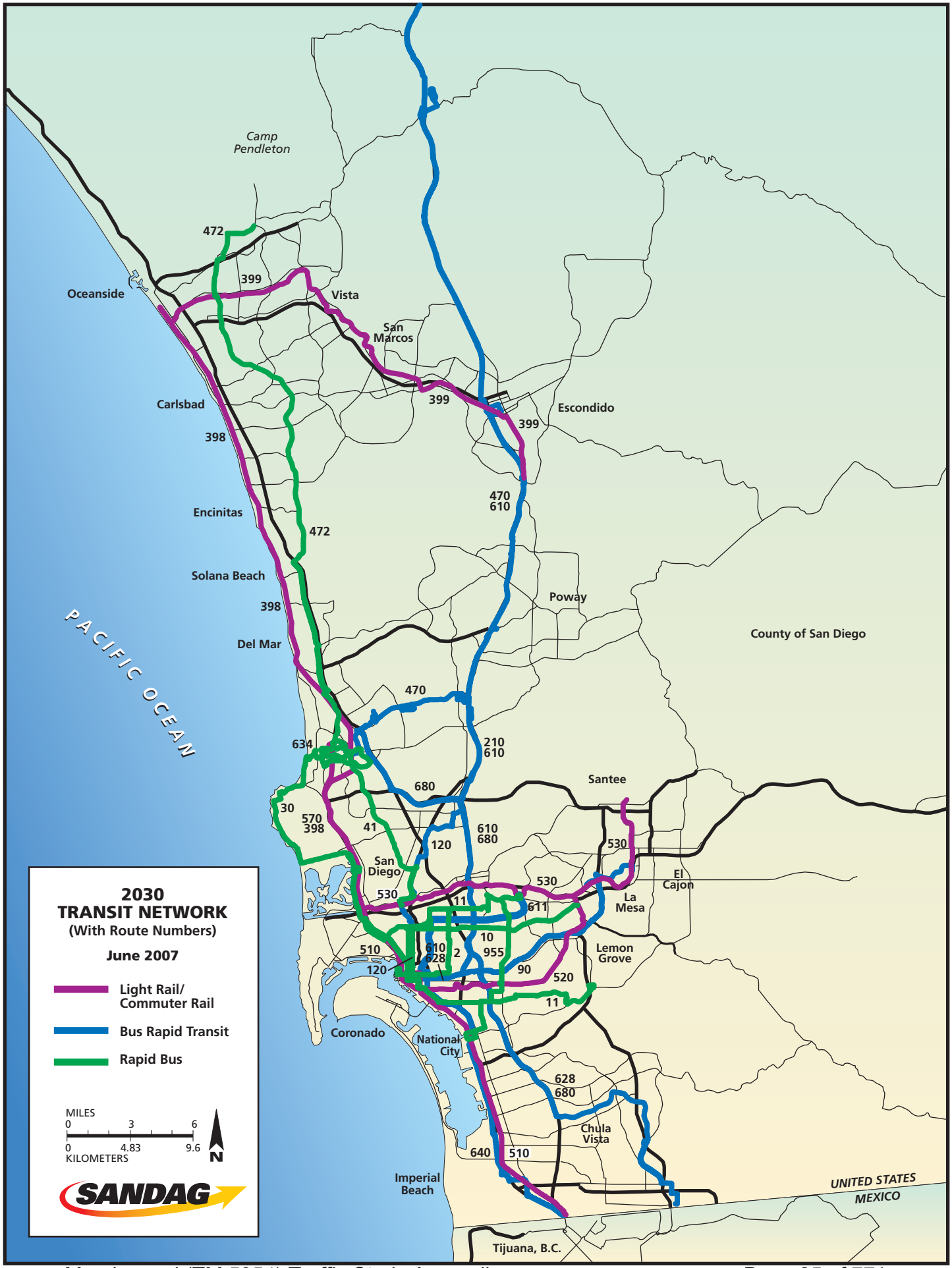
2. Revenue Constrained Alternative – The Revenue Constrained Alternative includes a transportation network that relies on guaranteed revenue sources and does not augment funding assumptions based on more aggressive efforts to bring increased funding levels to the region.

3. Transit Emphasis Alternative – The Transit Emphasis Alternative will assume a transit network where transit facilities would be improved and constructed with less emphasis on highways.

4. Transit Emphasis (Urban Core Focus) Alternative – This alternative is similar to the Transit Emphasis Alternative; however, the focus is on maximizing transit service in the downtown urban core area (within the orange and green line trolley service areas and extending south to National City).

Although these alternatives have been identified, SANDAG is seeking input on the alternatives in the NOP process which could result in modifications to the number of alternatives analyzed in the EIR, or modifications to the alternatives identified above.

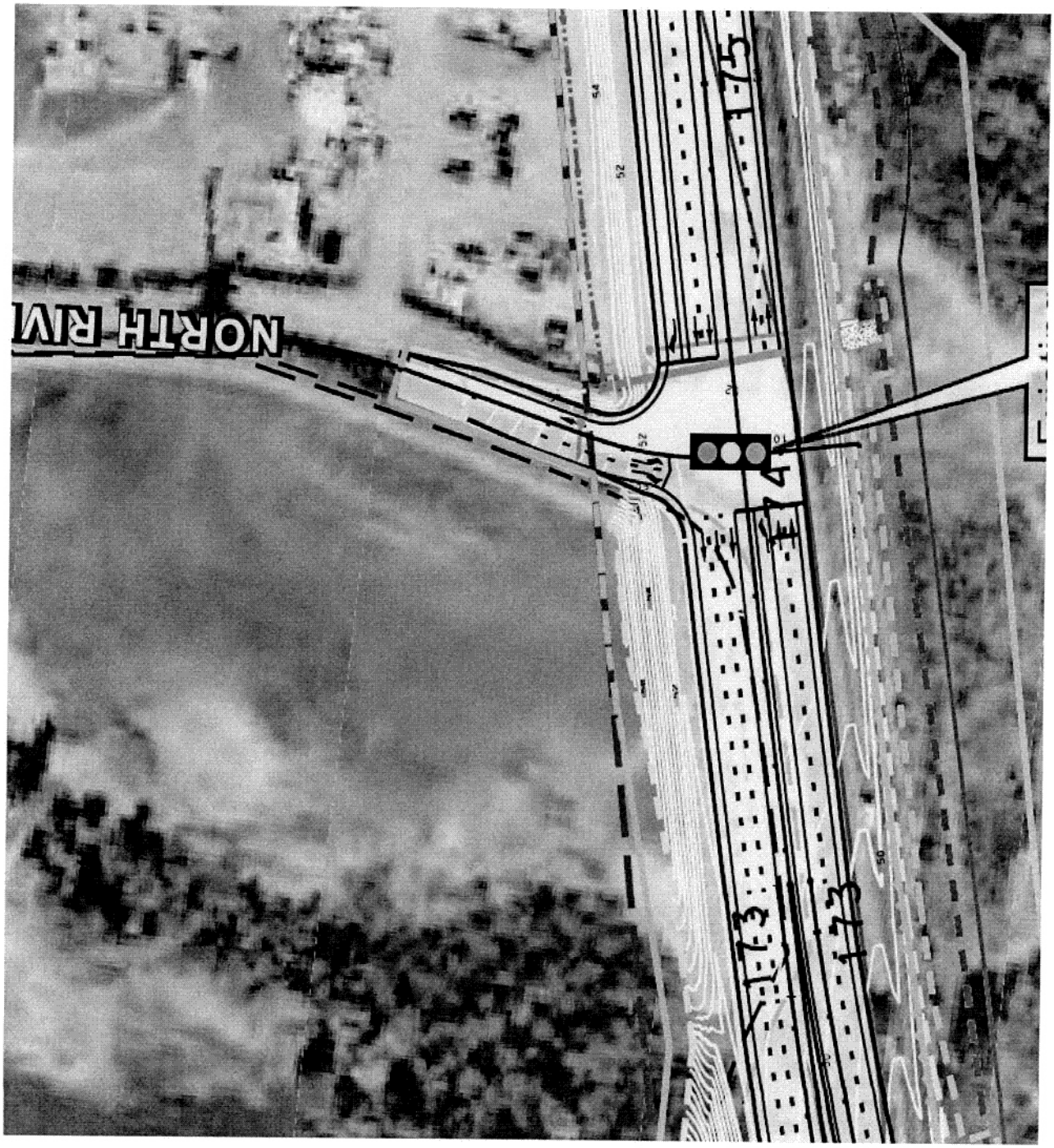

2030
HIGHWAY NETWORK
June 2007
Managed/HOV Lanes
General Purpose/Toll Lanes
Freeway Connectors
HOV/BRT Connectors
C = Conventional Highway
E = Expressway
F = Freeway
HOV = High Occupancy Vehicle
MB = Movable Barrier
ML = Managed Lanes
T = Toll Road
MILES
0 3 6
0 4.83 9.6
KILOMETERS
N
SANDAG
Northern Extent
4T/6T
Orange County
Riverside County
San Diego County
MILES
San Diego Region
MAP AREA
Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
Encinitas
Solana Beach
Del Mar
Poway
County of San Diego
San Diego
Santee
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
Tijuana, B.C.
PACIFIC OCEAN
UNITED STATES
MEXICO
8F+4T
4C
2C
4E
8F+4ML
6F+2HOV
10F+4ML/MB
14F+4ML
6F+2ML (Reversible)
8F +2HOV
8F +4ML
8F+2HOV
10F
4F
6F
8F
8T
4T
8F+ 2HOV


Camp Pendleton
Oceanside
Vista
San Marcos
Carlsbad
Escondido
Encinitas
Solana Beach
Poway
Del Mar
PACIFIC OCEAN
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
Coronado
National City
Chula Vista
Imperial Beach
UNITED STATES
MEXICO
Tijuana, B.C.
472
399
398
470
610
634
210
680
30
570
41
120
530
11
611
10
955
2
90
520
628
640
510
2030
TRANSIT NETWORK
(With Route Numbers)
June 2007
Light Rail/
Commuter Rail
Bus Rapid Transit
Rapid Bus
MILES
0 3 6
0 4.83 9.6
KILOMETERS
N
SANDAG

Appendix AA

Cumulative Impact Intersection LOS Calculations with Mitigation and Signal Warrants

SR-76 at East Vista Way



SR-76 at North River

SR-76 at Olive Hill

SR-76 @ Mission

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	9	1237	1969	44	0	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	9	1302	2073	46	0	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2119				2766	1059
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2119				2766	1059
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	62
cM capacity (veh/h)	254				15	220

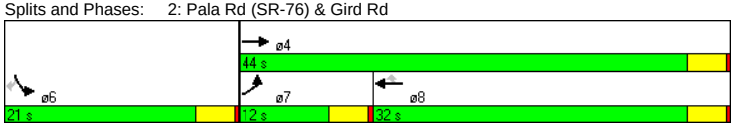
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	9	651	651	1382	737	84
Volume Left	9	0	0	0	0	0
Volume Right	0	0	0	0	46	84
cSH	254	1700	1700	1700	1700	220
Volume to Capacity	0.04	0.38	0.38	0.81	0.43	0.38
Queue Length 95th (ft)	3	0	0	0	0	42
Control Delay (s)	19.7	0.0	0.0	0.0	0.0	31.1
Lane LOS	C					D
Approach Delay (s)	0.1			0.0		31.1
Approach LOS						D

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	151	1185	1330	49	80	139
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	44.0	32.0	32.0	21.0	21.0
Total Split (%)	18.5%	67.7%	49.2%	49.2%	32.3%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	7.9	38.2	26.3	26.3	8.3	8.3
Actuated g/C Ratio	0.14	0.70	0.48	0.48	0.15	0.15
v/c Ratio	0.70	0.50	0.82	0.08	0.35	0.43
Control Delay	43.5	4.9	17.9	7.2	25.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	4.9	17.9	7.2	25.6	9.0
LOS	D	A	B	A	C	A
Approach Delay		9.3	17.5		15.1	
Approach LOS		A	B		B	

Intersection Summary			
Cycle Length: 65			
Actuated Cycle Length: 54.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 61.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Pala Rd (SR-76) & Gird Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	450			20	0	180
Storage Lanes	1			1	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				12		146
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		3191	8309		1271	
Travel Time (s)		72.5	188.8		28.9	
Volume (vph)	151	1185	1330	49	80	139
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	159	1247	1400	52	84	146
Lane Group Flow (vph)	159	1247	1400	52	84	146
v/c Ratio	0.70	0.50	0.82	0.08	0.35	0.43
Control Delay	43.5	4.9	17.9	7.2	25.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	4.9	17.9	7.2	25.6	9.0
Queue Length 50th (ft)	52	72	188	6	26	0
Queue Length 95th (ft)	#141	134	#315	23	60	40
Internal Link Dist (ft)		3111	8229		1191	
Turn Bay Length (ft)	450			20		180
Base Capacity (vph)	233	2513	1764	713	427	489
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.50	0.79	0.07	0.20	0.30

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Volume (vph)	151	1185	1330	49	80	139
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	159	1247	1400	52	84	146
RTOR Reduction (vph)	0	0	0	6	0	124
Lane Group Flow (vph)	159	1247	1400	46	84	22
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.9	38.2	26.3	26.3	8.3	8.3
Effective Green, g (s)	7.9	38.2	26.3	26.3	8.3	8.3
Actuated g/C Ratio	0.14	0.70	0.48	0.48	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	2481	1708	684	241	216
v/s Ratio Prot	c0.10	0.35	c0.40		c0.05	
v/s Ratio Perm				0.03		0.02
v/c Ratio	0.69	0.50	0.82	0.07	0.35	0.10
Uniform Delay, d1	22.2	3.8	12.1	7.5	20.7	19.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.8	0.2	3.2	0.0	0.9	0.2
Delay (s)	30.9	3.9	15.3	7.6	21.6	20.1
Level of Service	C	A	B	A	C	C
Approach Delay (s)		7.0	15.0		20.6	
Approach LOS		A	B		C	

Intersection Summary				
HCM Average Control Delay	11.8	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.70			
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	61.1%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	2	1056	1587	2	0	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	1112	1671	2	0	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1673				2232	836
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1673				2232	836
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	92
cM capacity (veh/h)	380				36	310

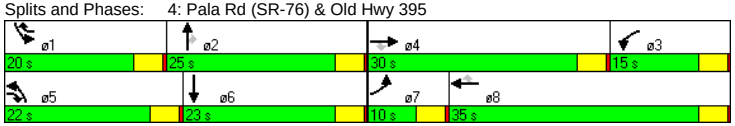
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	2	556	556	1114	559	25
Volume Left	2	0	0	0	0	0
Volume Right	0	0	0	0	2	25
cSH	380	1700	1700	1700	1700	310
Volume to Capacity	0.01	0.33	0.33	0.66	0.33	0.08
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	14.5	0.0	0.0	0.0	0.0	17.6
Lane LOS	B					C
Approach Delay (s)	0.0			0.0		17.6
Approach LOS						C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	94	700	145	82	1130	122	284	207	192	400	227
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot	
Protected Phases	7	4	5	3	8	1	5	2		1	6
Permitted Phases			4			8			2		
Detector Phases	7	4	5	3	8	1	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	30.0	22.0	15.0	35.0	20.0	22.0	25.0	25.0	20.0	23.0
Total Split (%)	11.1%	33.3%	24.4%	16.7%	38.9%	22.2%	24.4%	27.8%	27.8%	22.2%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	6.0	28.0	46.8	11.2	31.0	50.3	18.0	21.6	21.6	15.3	18.9
Actuated g/C Ratio	0.07	0.31	0.52	0.12	0.34	0.56	0.20	0.24	0.24	0.17	0.21
v/c Ratio	0.93	0.67	0.19	0.45	0.97	0.15	0.94	0.49	0.41	0.80	0.94
Control Delay	116.3	31.6	1.7	44.5	50.6	2.2	75.5	34.1	7.1	48.7	67.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	116.3	31.6	1.7	44.5	50.6	2.2	75.5	34.1	7.1	48.7	67.4
LOS	F	C	A	D	D	A	E	C	A	D	E
Approach Delay		35.5			45.8			43.7			57.5
Approach LOS		D			D			D			E

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 89.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 45.2		Intersection LOS: D	
Intersection Capacity Utilization 87.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 4: Pala Rd (SR-76) & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	330		0	150		150	0		0	0		0
Storage Lanes	1		0	1		1	1		1	2		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1764	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			153			128			202		28	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		652			462			899			4464	
Travel Time (s)		14.8			10.5			20.4			101.5	
Volume (vph)	94	700	145	82	1130	122	284	207	192	400	227	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	99	737	153	86	1189	128	299	218	202	421	239	132
Lane Group Flow (vph)	99	737	153	86	1189	128	299	218	202	421	371	0
v/c Ratio	0.93	0.67	0.19	0.45	0.97	0.15	0.94	0.49	0.41	0.80	0.94	
Control Delay	116.3	31.6	1.7	44.5	50.6	2.2	75.5	34.1	7.1	48.7	67.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	116.3	31.6	1.7	44.5	50.6	2.2	75.5	34.1	7.1	48.7	67.4	
Queue Length 50th (ft)	57	202	0	45	346	0	169	108	0	119	194	
Queue Length 95th (ft)	#156	262	16	93	#492	23	#326	179	54	#183	#368	
Internal Link Dist (ft)		572			382			819			4384	
Turn Bay Length (ft)	330			150		150						
Base Capacity (vph)	106	1130	811	206	1220	831	317	448	494	543	394	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.93	0.65	0.19	0.42	0.97	0.15	0.94	0.49	0.41	0.78	0.94	

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1763	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1763	
Volume (vph)	94	700	145	82	1130	122	284	207	192	400	227	125
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	99	737	153	86	1189	128	299	218	202	421	239	132
RTOR Reduction (vph)	0	0	75	0	0	62	0	0	154	0	22	0
Lane Group Flow (vph)	99	737	78	86	1189	66	299	218	48	421	349	0
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	6.0	28.0	46.0	9.8	31.8	47.1	18.0	21.6	21.6	15.3	18.9	
Effective Green, g (s)	6.0	28.0	46.0	9.8	31.8	47.1	18.0	21.6	21.6	15.3	18.9	
Actuated g/C Ratio	0.07	0.31	0.51	0.11	0.35	0.52	0.20	0.24	0.24	0.17	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	105	1093	719	171	1241	798	314	444	337	518	367	
v/s Ratio Prot	c0.06	0.21	0.02	0.05	c0.34	0.01	c0.19	c0.12		0.14	c0.20	
v/s Ratio Perm			0.03			0.03			0.03			
v/c Ratio	0.94	0.67	0.11	0.50	0.96	0.08	0.95	0.49	0.14	0.81	0.95	
Uniform Delay, d1	42.2	27.4	11.7	38.2	28.8	11.0	35.9	29.8	27.2	36.3	35.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	69.2	1.7	0.1	2.3	16.3	0.0	38.0	0.9	0.2	9.4	34.2	
Delay (s)	111.4	29.0	11.7	40.5	45.1	11.0	73.9	30.7	27.4	45.8	69.6	
Level of Service	F	C	B	D	D	B	E	C	C	D	E	
Approach Delay (s)		34.6			41.7			47.7			56.9	
Approach LOS		C			D			D			E	

Intersection Summary					
HCM Average Control Delay	44.1	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.99				
Actuated Cycle Length (s)	90.7	Sum of lost time (s)		20.0	
Intersection Capacity Utilization	87.5%	ICU Level of Service		E	
Analysis Period (min)	15				

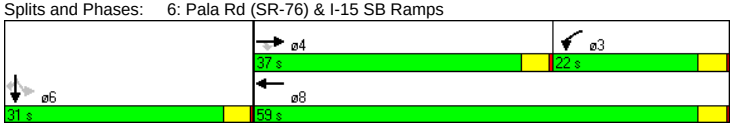
c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Volume (vph)	950	350	400	800	138	1	570
Turn Type		Perm	Prot		Perm		Perm
Protected Phases	4		3	8		6	
Permitted Phases		4			6		6
Detector Phases	4	4	3	8	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	22.0	59.0	31.0	31.0	31.0
Total Split (%)	41.1%	41.1%	24.4%	65.6%	34.4%	34.4%	34.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	31.9	31.9	16.2	52.1	29.9	29.9	29.9
Actuated g/C Ratio	0.35	0.35	0.18	0.58	0.33	0.33	0.33
v/c Ratio	0.80	0.50	0.76	0.41	0.29	0.50	0.53
Control Delay	31.3	4.7	47.6	11.9	26.6	14.4	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	4.7	47.6	11.9	26.6	14.4	15.0
LOS	C	A	D	B	C	B	B
Approach Delay	24.1			23.8		17.0	
Approach LOS	C			C		B	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 40 (44%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 63.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Pala Rd (SR-76) & I-15 SB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	500		0	0		0	0		900
Storage Lanes	0		1	2		0	0		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)		50	50	50	50					50	50	50
Trailing Detector (ft)		0	0	0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.91	0.95
Frt			0.850								0.850	0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1417	3072	3539	0	0	0	0	1504	1441	1346
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1417	3072	3539	0	0	0	0	1504	1441	1346
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			368								179	179
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		654			1271			961			1209	
Travel Time (s)		14.9			28.9			21.8			27.5	
Volume (vph)	0	950	350	400	800	0	0	0	0	138	1	570
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1000	368	421	842	0	0	0	0	145	1	600
Lane Group Flow (vph)	0	1000	368	421	842	0	0	0	0	145	301	300
v/c Ratio		0.80	0.50	0.76	0.41					0.29	0.50	0.53
Control Delay		31.3	4.7	47.6	11.9					26.6	14.4	15.0
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		31.3	4.7	47.6	11.9					26.6	14.4	15.0
Queue Length 50th (ft)		255	0	123	196					66	58	54
Queue Length 95th (ft)		336	56	m153	m303					121	147	144
Internal Link Dist (ft)		574			1191			881			1129	
Turn Bay Length (ft)				500								900
Base Capacity (vph)		1348	768	624	2218					523	618	585
Starvation Cap Reductn		0	0	0	0					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.74	0.48	0.67	0.38					0.28	0.49	0.51

Intersection Summary

Area Type: Other
m Volume for 95th percentile queue is metered by upstream signal.

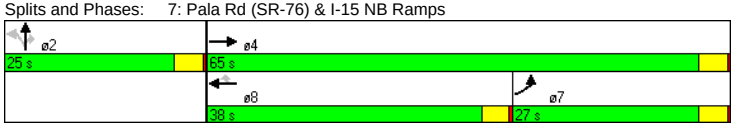
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	0.97	0.95					0.95	0.91	0.95
Frt		1.00	0.85	1.00	1.00					1.00	0.85	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3539	1417	3072	3539					1504	1442	1346
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3539	1417	3072	3539					1504	1442	1346
Volume (vph)	0	950	350	400	800	0	0	0	0	138	1	570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1000	368	421	842	0	0	0	0	145	1	600
RTOR Reduction (vph)	0	0	238	0	0	0	0	0	0	0	120	120
Lane Group Flow (vph)	0	1000	130	421	842	0	0	0	0	145	181	180
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		31.9	31.9	16.2	52.1					29.9	29.9	29.9
Effective Green, g (s)		31.9	31.9	16.2	52.1					29.9	29.9	29.9
Actuated g/C Ratio		0.35	0.35	0.18	0.58					0.33	0.33	0.33
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1254	502	553	2049					500	479	447
v/s Ratio Prot		c0.28		c0.14	0.24							
v/s Ratio Perm			0.09							0.10	0.13	c0.13
v/c Ratio		0.80	0.26	0.76	0.41					0.29	0.38	0.40
Uniform Delay, d1		26.1	20.7	35.1	10.5					22.2	23.0	23.2
Progression Factor		1.00	1.00	1.18	1.13					1.00	1.00	1.00
Incremental Delay, d2		3.6	0.3	4.1	0.1					1.5	2.3	2.7
Delay (s)		29.8	20.9	45.4	11.9					23.7	25.2	25.9
Level of Service		C	C	D	B					C	C	C
Approach Delay (s)		27.4			23.1			0.0			25.2	
Approach LOS		C			C			A			C	

Intersection Summary				
HCM Average Control Delay	25.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.64			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	63.3%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Volume (vph)	500	600	950	139	277	0	340
Turn Type	Prot			Perm	Perm		Perm
Protected Phases	7	4	8			2	
Permitted Phases				8	2		2
Detector Phases	7	4	8	8	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	65.0	38.0	38.0	25.0	25.0	25.0
Total Split (%)	30.0%	72.2%	42.2%	42.2%	27.8%	27.8%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lag		Lead	Lead			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	20.1	54.8	30.7	30.7	27.2	27.2	27.2
Actuated g/C Ratio	0.22	0.61	0.34	0.34	0.30	0.30	0.30
v/c Ratio	0.77	0.29	0.83	0.28	0.38	0.43	0.45
Control Delay	50.2	12.8	33.6	14.0	30.7	25.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	12.8	33.6	14.0	30.7	25.6	6.6
LOS	D	B	C	B	C	C	A
Approach Delay		29.8	31.1			19.3	
Approach LOS		C	C			B	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.83		
Intersection Signal Delay: 28.0	Intersection LOS: C	
Intersection Capacity Utilization 63.3%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 7: Pala Rd (SR-76) & I-15 NB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	450		0	0		50	0		800	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50			50	50	50	50	50			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.91	0.95	1.00	1.00	1.00
Frt						0.850		0.933	0.850			
Flt Protected	0.950						0.950	0.973				
Satd. Flow (prot)	3072	3539	0	0	3539	1417	1504	1539	1346	0	0	0
Flt Permitted	0.950						0.950	0.973				
Satd. Flow (perm)	3072	3539	0	0	3539	1417	1504	1539	1346	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						54		42	263			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1271			2232			991			1241	
Travel Time (s)		28.9			50.7			22.5			28.2	
Volume (vph)	500	600	0	0	950	139	277	0	340	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	526	632	0	0	1000	146	292	0	358	0	0	0
Lane Group Flow (vph)	526	632	0	0	1000	146	175	212	263	0	0	0
v/c Ratio	0.77	0.29			0.83	0.28	0.38	0.43	0.45			
Control Delay	50.2	12.8			33.6	14.0	30.7	25.6	6.6			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	50.2	12.8			33.6	14.0	30.7	25.6	6.6			
Queue Length 50th (ft)	166	175			267	36	84	85	0			
Queue Length 95th (ft)	m201	m153			330	78	160	171	65			
Internal Link Dist (ft)		1191			2152			911			1161	
Turn Bay Length (ft)	450					50			800			
Base Capacity (vph)	785	2415			1353	575	462	501	595			
Starvation Cap Reductn	0	0			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.67	0.26			0.74	0.25	0.38	0.42	0.44			

Intersection Summary

Area Type: Other

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.93	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (prot)	3072	3539			3539	1417	1504	1539	1346			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (perm)	3072	3539			3539	1417	1504	1539	1346			
Volume (vph)	500	600	0	0	950	139	277	0	340	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	526	632	0	0	1000	146	292	0	358	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	36	0	29	184	0	0	0
Lane Group Flow (vph)	526	632	0	0	1000	110	175	183	79	0	0	0
Turn Type	Prot					Perm	Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	20.1	54.8			30.7	30.7	27.2	27.2	27.2			
Effective Green, g (s)	20.1	54.8			30.7	30.7	27.2	27.2	27.2			
Actuated g/C Ratio	0.22	0.61			0.34	0.34	0.30	0.30	0.30			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	686	2155			1207	483	455	465	407			
v/s Ratio Prot	c0.17	0.18			c0.28							
v/s Ratio Perm						0.08	0.12	0.12	0.06			
v/c Ratio	0.77	0.29			0.83	0.23	0.38	0.39	0.20			
Uniform Delay, d1	32.8	8.4			27.2	21.2	24.8	24.9	23.3			
Progression Factor	1.37	1.57			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	3.5	0.1			4.8	0.2	2.5	2.5	1.1			
Delay (s)	48.5	13.2			32.1	21.4	27.2	27.3	24.4			
Level of Service	D	B			C	C	C	C	C			
Approach Delay (s)		29.2			30.7			26.1			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM Average Control Delay	29.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

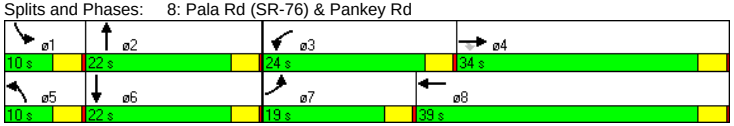
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	140	670	154	195	920	110	256	26	187
Turn Type	Prot		Perm	Prot		Prot		Prot	
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phases	7	4	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	34.0	34.0	24.0	39.0	10.0	22.0	10.0	22.0
Total Split (%)	21.1%	37.8%	37.8%	26.7%	43.3%	11.1%	24.4%	11.1%	24.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	11.2	24.1	24.1	13.7	26.3	6.6	15.8	6.6	11.8
Actuated g/C Ratio	0.16	0.36	0.36	0.20	0.39	0.10	0.24	0.09	0.18
v/c Ratio	0.57	0.55	0.26	0.65	0.76	0.39	0.49	0.19	0.41
Control Delay	40.9	21.7	5.1	39.4	23.5	40.7	19.6	41.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	21.7	5.1	39.4	23.5	40.7	19.6	41.7	26.4
LOS	D	C	A	D	C	D	B	D	C
Approach Delay		21.8			26.1		23.9		27.8
Approach LOS		C			C		C		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 66.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 8: Pala Rd (SR-76) & Pankey Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.988			0.940			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3539	1417	1583	3497	0	3072	3327	0	1583	3412	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	3539	1417	1583	3497	0	3072	3327	0	1583	3412	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			162		11			153			43	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2232			2833			991			1488	
Travel Time (s)		50.7			64.4			22.5			33.8	
Volume (vph)	140	670	154	195	920	77	110	256	168	26	187	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	705	162	205	968	81	116	269	177	27	197	63
Lane Group Flow (vph)	147	705	162	205	1049	0	116	446	0	27	260	0
v/c Ratio	0.57	0.55	0.26	0.65	0.76		0.39	0.49		0.19	0.41	
Control Delay	40.9	21.7	5.1	39.4	23.5		40.7	19.6		41.7	26.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.9	21.7	5.1	39.4	23.5		40.7	19.6		41.7	26.4	
Queue Length 50th (ft)	61	130	0	84	204		25	54		11	47	
Queue Length 95th (ft)	140	232	42	178	344		#61	127		41	92	
Internal Link Dist (ft)		2152			2753			911			1408	
Turn Bay Length (ft)												
Base Capacity (vph)	352	1552	713	446	1702		304	1086		149	970	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.42	0.45	0.23	0.46	0.62		0.38	0.41		0.18	0.27	

Intersection Summary

Area Type: Other
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

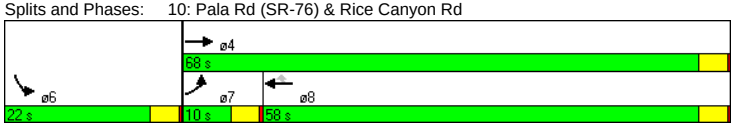
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3539	1417	1583	3498		3072	3329		1583	3411	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	3539	1417	1583	3498		3072	3329		1583	3411	
Volume (vph)	140	670	154	195	920	77	110	256	168	26	187	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	705	162	205	968	81	116	269	177	27	197	63
RTOR Reduction (vph)	0	0	105	0	7	0	0	118	0	0	35	0
Lane Group Flow (vph)	147	705	57	205	1042	0	116	328	0	27	225	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	8.7	24.1	24.1	10.9	26.3		4.2	15.8		1.8	13.4	
Effective Green, g (s)	8.7	24.1	24.1	10.9	26.3		4.2	15.8		1.8	13.4	
Actuated g/C Ratio	0.13	0.35	0.35	0.16	0.38		0.06	0.23		0.03	0.20	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	1243	498	252	1341		188	767		42	666	
v/s Ratio Prot	0.09	0.20		c0.13	c0.30		c0.04	c0.10		0.02	0.07	
v/s Ratio Perm			0.04									
v/c Ratio	0.73	0.57	0.11	0.81	0.78		0.62	0.43		0.64	0.34	
Uniform Delay, d1	28.8	18.0	15.0	27.9	18.6		31.4	22.5		33.1	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.8	0.6	0.1	17.9	2.9		5.9	0.4		29.0	0.3	
Delay (s)	41.7	18.6	15.1	45.7	21.5		37.3	22.9		62.1	24.1	
Level of Service	D	B	B	D	C		D	C		E	C	
Approach Delay (s)		21.4			25.4			25.9			27.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Volume (vph)	32	1071	552	33	80
Turn Type	Prot			Perm	
Protected Phases	7	4	8		6
Permitted Phases				8	
Detector Phases	7	4	8	8	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	68.0	58.0	58.0	22.0
Total Split (%)	11.1%	75.6%	64.4%	64.4%	24.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	Min
Act Effct Green (s)	6.3	42.9	40.0	40.0	11.8
Actuated g/C Ratio	0.09	0.67	0.62	0.62	0.18
v/c Ratio	0.24	0.90	0.50	0.04	0.67
Control Delay	42.1	20.5	9.4	2.8	28.9
Queue Delay	0.0	0.5	0.4	0.0	0.1
Total Delay	42.1	21.0	9.9	2.8	29.0
LOS	D	C	A	A	C
Approach Delay		21.7	9.5		29.0
Approach LOS		C	A		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 64.1		
Natural Cycle: 70		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 18.8	Intersection LOS: B	
Intersection Capacity Utilization 77.6%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 10: Pala Rd (SR-76) & Rice Canyon Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.914	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1583	1863	1863	1417	1496	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1583	1863	1863	1417	1496	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				35	88	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		5160	470		1120	
Travel Time (s)		117.3	10.7		25.5	
Volume (vph)	32	1071	552	33	80	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	1127	581	35	84	147
Lane Group Flow (vph)	34	1127	581	35	231	0
v/c Ratio	0.24	0.90	0.50	0.04	0.67	
Control Delay	42.1	20.5	9.4	2.8	28.9	
Queue Delay	0.0	0.5	0.4	0.0	0.1	
Total Delay	42.1	21.0	9.9	2.8	29.0	
Queue Length 50th (ft)	13	275	81	0	52	
Queue Length 95th (ft)	49	#649	261	11	152	
Internal Link Dist (ft)		5080	390		1040	
Turn Bay Length (ft)						
Base Capacity (vph)	148	1424	1309	1006	479	
Starvation Cap Reductn	0	0	312	0	0	
Spillback Cap Reductn	0	73	0	0	14	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.23	0.83	0.58	0.03	0.50	

Intersection Summary

Area Type: Other

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.91	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1583	1863	1863	1417	1496	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1583	1863	1863	1417	1496	
Volume (vph)	32	1071	552	33	80	140
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	1127	581	35	84	147
RTOR Reduction (vph)	0	0	0	14	72	0
Lane Group Flow (vph)	34	1127	581	21	159	0
Turn Type	Prot			Perm		
Protected Phases	7	4	8		6	
Permitted Phases				8		
Actuated Green, G (s)	1.7	45.7	40.0	40.0	11.8	
Effective Green, g (s)	1.7	45.7	40.0	40.0	11.8	
Actuated g/C Ratio	0.03	0.70	0.61	0.61	0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	41	1300	1138	865	270	
v/s Ratio Prot	0.02	c0.61	0.31		c0.11	
v/s Ratio Perm				0.02		
v/c Ratio	0.83	0.87	0.51	0.02	0.59	
Uniform Delay, d1	31.8	7.6	7.2	5.0	24.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	76.2	6.3	0.4	0.0	3.3	
Delay (s)	108.0	13.9	7.6	5.1	27.9	
Level of Service	F	B	A	A	C	
Approach Delay (s)		16.7	7.5		27.9	
Approach LOS		B	A		C	

Intersection Summary

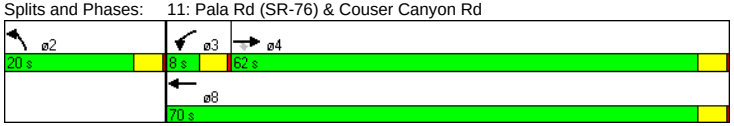
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Volume (vph)	1010	37	6	520	65
Turn Type		Perm	Prot		
Protected Phases	4		3	8	2
Permitted Phases		4			
Detector Phases	4	4	3	8	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	62.0	62.0	8.0	70.0	20.0
Total Split (%)	68.9%	68.9%	8.9%	77.8%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	Min
Act Effct Green (s)	37.3	37.3	4.4	38.4	9.0
Actuated g/C Ratio	0.66	0.66	0.07	0.68	0.16
v/c Ratio	0.86	0.04	0.05	0.43	0.38
Control Delay	17.2	1.8	38.2	4.9	26.5
Queue Delay	0.8	0.0	0.0	0.0	0.0
Total Delay	18.0	1.8	38.2	4.9	26.5
LOS	B	A	D	A	C
Approach Delay	17.5			5.3	26.5
Approach LOS	B			A	C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 56.5		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.86		
Intersection Signal Delay: 14.1	Intersection LOS: B	
Intersection Capacity Utilization 65.9%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 11: Pala Rd (SR-76) & Couser Canyon Rd



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1700	1700	1900	1700	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.957	
Flt Protected			0.950		0.967	
Satd. Flow (prot)	1863	1417	1583	1863	1542	0
Flt Permitted			0.950		0.967	
Satd. Flow (perm)	1863	1417	1583	1863	1542	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		39			23	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	470			11023	1081	
Travel Time (s)	10.7			250.5	24.6	
Volume (vph)	1010	37	6	520	65	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1063	39	6	547	68	32
Lane Group Flow (vph)	1063	39	6	547	100	0
v/c Ratio	0.86	0.04	0.05	0.43	0.38	
Control Delay	17.2	1.8	38.2	4.9	26.5	
Queue Delay	0.8	0.0	0.0	0.0	0.0	
Total Delay	18.0	1.8	38.2	4.9	26.5	
Queue Length 50th (ft)	172	0	2	54	22	
Queue Length 95th (ft)	#767	10	16	132	86	
Internal Link Dist (ft)	390			10943	1001	
Turn Bay Length (ft)						
Base Capacity (vph)	1420	1090	110	1485	435	
Starvation Cap Reductn	135	0	0	0	0	
Spillback Cap Reductn	0	0	0	3	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.83	0.04	0.05	0.37	0.23	

Intersection Summary	
Area Type:	Other
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

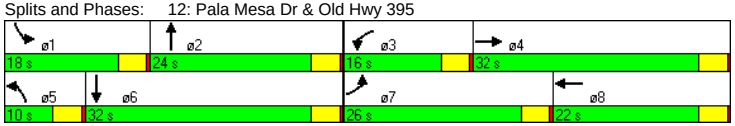
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1700	1700	1900	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	1.00	1.00	0.95	1.00	0.97	
Satd. Flow (prot)	1863	1417	1583	1863	1542	
Flt Permitted	1.00	1.00	0.95	1.00	0.97	
Satd. Flow (perm)	1863	1417	1583	1863	1542	
Volume (vph)	1010	37	6	520	65	30
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1063	39	6	547	68	32
RTOR Reduction (vph)	0	14	0	0	19	0
Lane Group Flow (vph)	1063	25	6	547	81	0
Turn Type		Perm	Prot			
Protected Phases	4		3	8	2	
Permitted Phases		4				
Actuated Green, G (s)	37.3	37.3	0.5	41.8	9.0	
Effective Green, g (s)	37.3	37.3	0.5	41.8	9.0	
Actuated g/C Ratio	0.63	0.63	0.01	0.71	0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1182	899	13	1324	236	
v/s Ratio Prot	c0.57		0.00	c0.29	c0.05	
v/s Ratio Perm		0.02				
v/c Ratio	0.90	0.03	0.46	0.41	0.34	
Uniform Delay, d1	9.2	4.0	29.0	3.5	22.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.3	0.0	23.8	0.2	0.9	
Delay (s)	18.5	4.0	52.8	3.7	23.1	
Level of Service	B	A	D	A	C	
Approach Delay (s)	17.9			4.2	23.1	
Approach LOS	B			A	C	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	250	124	114	65	52	368	139	717
Turn Type	Prot		Prot		Prot		Prot	
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phases	7	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	32.0	16.0	22.0	10.0	24.0	18.0	32.0
Total Split (%)	28.9%	35.6%	17.8%	24.4%	11.1%	26.7%	20.0%	35.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	15.7	18.6	10.0	13.4	6.8	16.3	11.0	22.7
Actuated g/C Ratio	0.23	0.28	0.15	0.20	0.10	0.24	0.16	0.34
v/c Ratio	0.73	0.79	0.52	0.37	0.36	0.60	0.57	0.65
Control Delay	40.8	28.8	42.3	22.6	45.7	27.8	42.3	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	28.8	42.3	22.6	45.7	27.8	42.3	24.7
LOS	D	C	D	C	D	C	D	C
Approach Delay		33.3		31.6		29.5		27.5
Approach LOS		C		C		C		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 66.8		
Natural Cycle: 70		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.79		
Intersection Signal Delay: 30.0	Intersection LOS: C	
Intersection Capacity Utilization 69.3%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 12: Pala Mesa Dr & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	0		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.894			0.921			0.963			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1665	0	1583	1716	0	1583	3408	0	1583	3522	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	1665	0	1583	1716	0	1583	3408	0	1583	3522	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		140			56			45			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3628			1500			4464			5461	
Travel Time (s)		82.5			34.1			101.5			124.1	
Volume (vph)	250	124	300	114	65	72	52	368	121	139	717	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	131	316	120	68	76	55	387	127	146	755	25
Lane Group Flow (vph)	263	447	0	120	144	0	55	514	0	146	780	0
v/c Ratio	0.73	0.79		0.52	0.37		0.36	0.60		0.57	0.65	
Control Delay	40.8	28.8		42.3	22.6		45.7	27.8		42.3	24.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.8	28.8		42.3	22.6		45.7	27.8		42.3	24.7	
Queue Length 50th (ft)	114	136		53	36		25	106		64	172	
Queue Length 95th (ft)	#224	270		122	96		#79	182		141	270	
Internal Link Dist (ft)		3548			1420			4384			5381	
Turn Bay Length (ft)							150			200		
Base Capacity (vph)	491	745		296	530		155	1112		338	1475	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.54	0.60		0.41	0.27		0.35	0.46		0.43	0.53	

Intersection Summary

Area Type: Other

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.89		1.00	0.92		1.00	0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	1665		1583	1715		1583	3408		1583	3522	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	1665		1583	1715		1583	3408		1583	3522	
Volume (vph)	250	124	300	114	65	72	52	368	121	139	717	24
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	131	316	120	68	76	55	387	127	146	755	25
RTOR Reduction (vph)	0	101	0	0	45	0	0	34	0	0	3	0
Lane Group Flow (vph)	263	346	0	120	99	0	55	480	0	146	777	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.6	18.7		7.4	13.5		2.9	17.2		8.4	22.7	
Effective Green, g (s)	12.6	18.7		7.4	13.5		2.9	17.2		8.4	22.7	
Actuated g/C Ratio	0.19	0.28		0.11	0.20		0.04	0.25		0.12	0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	295	460		173	342		68	866		196	1181	
v/s Ratio Prot	c0.17	c0.21		0.08	0.06		0.03	0.14		c0.09	c0.22	
v/s Ratio Perm												
v/c Ratio	0.89	0.75		0.69	0.29		0.81	0.55		0.74	0.66	
Uniform Delay, d1	26.9	22.4		29.1	23.0		32.1	21.9		28.6	19.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	26.7	6.8		11.4	0.5		48.6	0.8		14.2	1.3	
Delay (s)	53.6	29.2		40.5	23.5		80.8	22.7		42.8	20.5	
Level of Service	D	C		D	C		F	C		D	C	
Approach Delay (s)		38.2			31.2			28.3			24.0	
Approach LOS		D			C			C			C	

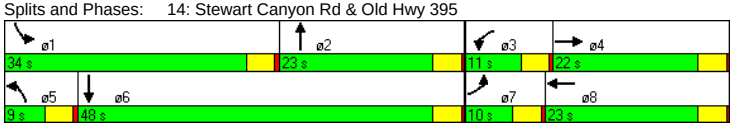
Intersection Summary				
HCM Average Control Delay	29.9	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.71			
Actuated Cycle Length (s)	67.7	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	69.3%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	21	14	23	3	8	404	307	1003
Turn Type	Prot		Prot		Prot		Prot	
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phases	7	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	22.0	11.0	23.0	9.0	23.0	34.0	48.0
Total Split (%)	11.1%	24.4%	12.2%	25.6%	10.0%	25.6%	37.8%	53.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	6.5	7.8	6.8	8.1	5.8	19.4	15.6	34.3
Actuated g/C Ratio	0.12	0.15	0.12	0.16	0.10	0.39	0.30	0.68
v/c Ratio	0.12	0.19	0.12	0.59	0.05	0.32	0.69	0.45
Control Delay	33.3	15.9	32.5	10.1	35.2	20.3	25.9	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	15.9	32.5	10.1	35.2	20.3	25.9	8.0
LOS	C	B	C	B	D	C	C	A
Approach Delay		21.1		11.8		20.5		12.1
Approach LOS		C		B		C		B

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 50.3
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 14.0 — Intersection LOS: B
Intersection Capacity Utilization 61.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 14: Stewart Canyon Rd & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.893			0.852			0.994			0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1663	0	1583	1587	0	1583	3518	0	1583	3525	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	1663	0	1583	1587	0	1583	3518	0	1583	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			289			4			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1302			7424			5461			3410	
Travel Time (s)		29.6			168.7			124.1			77.5	
Volume (vph)	21	14	35	23	3	275	8	404	16	307	1003	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	22	15	37	24	3	289	8	425	17	323	1056	31
Lane Group Flow (vph)	22	52	0	24	292	0	8	442	0	323	1087	0
v/c Ratio	0.12	0.19		0.12	0.59		0.05	0.32		0.69	0.45	
Control Delay	33.3	15.9		32.5	10.1		35.2	20.3		25.9	8.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.3	15.9		32.5	10.1		35.2	20.3		25.9	8.0	
Queue Length 50th (ft)	5	3		5	1		2	45		63	44	
Queue Length 95th (ft)	35	38		36	69		18	158		226	266	
Internal Link Dist (ft)		1222			7344			5381			3330	
Turn Bay Length (ft)				200			100			100		
Base Capacity (vph)	191	544		218	710		159	1602		743	2582	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.10		0.11	0.41		0.05	0.28		0.43	0.42	

Intersection Summary

Area Type: Other

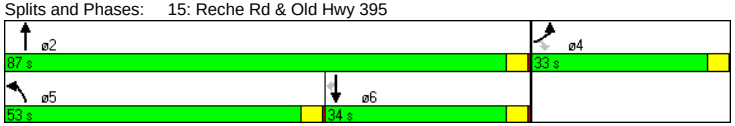
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.89		1.00	0.85		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	1664		1583	1586		1583	3519		1583	3524	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	1664		1583	1586		1583	3519		1583	3524	
Volume (vph)	21	14	35	23	3	275	8	404	16	307	1003	29
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	22	15	37	24	3	289	8	425	17	323	1056	31
RTOR Reduction (vph)	0	33	0	0	258	0	0	3	0	0	2	0
Lane Group Flow (vph)	22	19	0	24	34	0	8	439	0	323	1085	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.6	5.7		1.9	6.0		0.6	20.1		12.8	32.3	
Effective Green, g (s)	1.6	5.7		1.9	6.0		0.6	20.1		12.8	32.3	
Actuated g/C Ratio	0.03	0.10		0.03	0.11		0.01	0.36		0.23	0.57	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	45	168		53	168		17	1252		359	2015	
v/s Ratio Prot	0.01	0.01		c0.02	c0.02		0.01	0.12		c0.20	c0.31	
v/s Ratio Perm												
v/c Ratio	0.49	0.11		0.45	0.20		0.47	0.35		0.90	0.54	
Uniform Delay, d1	27.0	23.1		26.8	23.1		27.8	13.4		21.2	7.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.1	0.3		6.0	0.6		19.2	0.2		24.1	0.3	
Delay (s)	35.2	23.4		32.8	23.6		47.0	13.6		45.4	7.8	
Level of Service	D	C		C	C		D	B		D	A	
Approach Delay (s)		26.9			24.3			14.2			16.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	270	280	475	281	255	459
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	53.0	87.0	34.0	34.0
Total Split (%)	27.5%	27.5%	44.2%	72.5%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	17.9	17.9	26.9	44.6	13.0	13.0
Actuated g/C Ratio	0.25	0.25	0.37	0.62	0.18	0.18
v/c Ratio	0.72	0.51	0.85	0.13	0.42	0.74
Control Delay	40.3	7.6	36.5	6.0	32.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	7.6	36.5	6.0	32.0	11.4
LOS	D	A	D	A	C	B
Approach Delay	23.6			25.1	18.7	
Approach LOS	C			C	B	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 72			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 67.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 15: Reche Rd & Old Hwy 395



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1900	1900	1700
Storage Length (ft)	0	0	150			0
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1583	1417	1583	3539	3539	1417
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1583	1417	1583	3539	3539	1417
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		295				483
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	2635			3410	4960	
Travel Time (s)	59.9			77.5	112.7	
Volume (vph)	270	280	475	281	255	459
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	295	500	296	268	483
Lane Group Flow (vph)	284	295	500	296	268	483
v/c Ratio	0.72	0.51	0.85	0.13	0.42	0.74
Control Delay	40.3	7.6	36.5	6.0	32.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	7.6	36.5	6.0	32.0	11.4
Queue Length 50th (ft)	104	0	176	23	52	0
Queue Length 95th (ft)	#301	72	456	52	128	101
Internal Link Dist (ft)	2555			3330	4880	
Turn Bay Length (ft)			150			
Base Capacity (vph)	590	714	857	2702	1278	820
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.58	0.11	0.21	0.59

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1900	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1583	1417	1583	3539	3539	1417
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1583	1417	1583	3539	3539	1417
Volume (vph)	270	280	475	281	255	459
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	284	295	500	296	268	483
RTOR Reduction (vph)	0	220	0	0	0	389
Lane Group Flow (vph)	284	75	500	296	268	94
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	17.9	17.9	26.9	44.6	13.7	13.7
Effective Green, g (s)	17.9	17.9	26.9	44.6	13.7	13.7
Actuated g/C Ratio	0.25	0.25	0.38	0.63	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	402	360	604	2239	688	275
v/s Ratio Prot	c0.18		c0.32	0.08	c0.08	
v/s Ratio Perm		0.05				0.07
v/c Ratio	0.71	0.21	0.83	0.13	0.39	0.34
Uniform Delay, d1	23.9	20.7	19.7	5.2	24.8	24.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.6	0.3	9.1	0.0	0.4	0.7
Delay (s)	29.5	21.0	28.8	5.2	25.1	25.3
Level of Service	C	C	C	A	C	C
Approach Delay (s)	25.2			20.1	25.2	
Approach LOS	C			C	C	

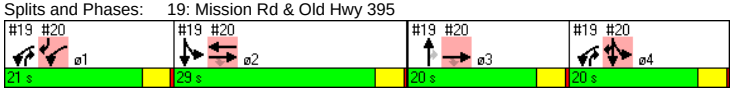
Intersection Summary				
HCM Average Control Delay	23.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.69			
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	67.8%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø4
Lane Configurations								
Volume (vph)	220	1000	81	250	843	60		
Turn Type		Free		pm+ov	Split			
Protected Phases	1 4		3	1 4	2	2	1	4
Permitted Phases		Free		3				
Detector Phases	1 4		3	1 4	2	2		
Minimum Initial (s)			4.0		4.0	4.0	4.0	4.0
Minimum Split (s)			20.0		20.0	20.0	8.0	20.0
Total Split (s)	41.0	0.0	20.0	41.0	29.0	29.0	21.0	20.0
Total Split (%)	45.6%	0.0%	22.2%	45.6%	32.2%	32.2%	23%	22%
Yellow Time (s)			3.5		3.5	3.5	3.5	3.5
All-Red Time (s)			0.5		0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	Lag	Lead	Lag
Lead-Lag Optimize?			Yes		Yes	Yes	Yes	Yes
Recall Mode			None		Min	Min	None	None
Act Effct Green (s)	37.0	86.8	12.7	53.8	25.0	25.0		
Actuated g/C Ratio	0.43	1.00	0.15	0.62	0.29	0.29		
v/c Ratio	0.34	0.74	0.31	0.30	1.00	0.12		
Control Delay	21.0	3.1	35.9	8.7	63.5	24.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	21.0	3.1	35.9	8.7	63.5	24.7		
LOS	C	A	D	A	E	C		
Approach Delay	6.3		15.3			60.9		
Approach LOS	A		B			E		

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 86.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 27.6 Intersection LOS: C
Intersection Capacity Utilization 53.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 19: Mission Rd & Old Hwy 395



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1900	1700	1700	1900
Storage Length (ft)	0	130		210	100	
Storage Lanes	1	1		1	2	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	1417	1863	1417	3072	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	1417	1863	1417	3072	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	434		4960			1035
Travel Time (s)	9.9		112.7			23.5
Volume (vph)	220	1000	81	250	843	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1053	85	263	887	63
Lane Group Flow (vph)	232	1053	85	263	887	63
v/c Ratio	0.34	0.74	0.31	0.30	1.00	0.12
Control Delay	21.0	3.1	35.9	8.7	63.5	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	3.1	35.9	8.7	63.5	24.7
Queue Length 50th (ft)	89	64	42	61	~261	26
Queue Length 95th (ft)	m102	m39	84	101	#400	58
Internal Link Dist (ft)	354		4880			955
Turn Bay Length (ft)		130		210	100	
Base Capacity (vph)	676	1417	344	877	886	538
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.74	0.25	0.30	1.00	0.12

Intersection Summary

Area Type: Other
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

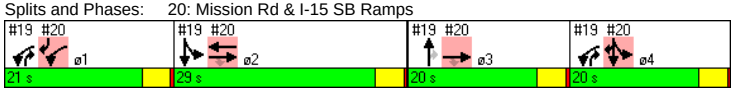
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1900	1700	1700	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	1417	1863	1417	3072	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	1417	1863	1417	3072	1863
Volume (vph)	220	1000	81	250	843	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1053	85	263	887	63
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	232	1053	85	263	887	63
Turn Type		Free		pm+ov	Split	
Protected Phases	1 4		3	1 4	2	2
Permitted Phases		Free		3		
Actuated Green, G (s)	37.0	86.7	12.7	49.7	25.0	25.0
Effective Green, g (s)	37.0	86.7	12.7	49.7	25.0	25.0
Actuated g/C Ratio	0.43	1.00	0.15	0.57	0.29	0.29
Clearance Time (s)			4.0		4.0	4.0
Vehicle Extension (s)			3.0		3.0	3.0
Lane Grp Cap (vph)	676	1417	273	878	886	537
v/s Ratio Prot	0.15		0.05	0.13	c0.29	0.03
v/s Ratio Perm		c0.74		0.06		
v/c Ratio	0.34	0.74	0.31	0.30	1.00	0.12
Uniform Delay, d1	16.7	0.0	33.1	9.5	30.9	22.7
Progression Factor	1.15	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.4	0.7	0.2	30.5	0.1
Delay (s)	19.2	1.4	33.7	9.7	61.4	22.8
Level of Service	B	A	C	A	E	C
Approach Delay (s)	4.6		15.6			58.8
Approach LOS	A		B			E

Intersection Summary			
HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	86.7	Sum of lost time (s)	4.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR	ø3
Lane Configurations							
Volume (vph)	800	270	117	370	8	865	
Turn Type		Perm	Prot			custom	
Protected Phases	2 3		1	2	4	1 4	3
Permitted Phases		2 3				4	
Detector Phases	2 3	2 3	1	2	4	1 4	
Minimum Initial (s)			4.0	4.0	4.0		4.0
Minimum Split (s)			8.0	20.0	20.0		20.0
Total Split (s)	49.0	49.0	21.0	29.0	20.0	41.0	20.0
Total Split (%)	54.4%	54.4%	23.3%	32.2%	22.2%	45.6%	22%
Yellow Time (s)			3.5	3.5	3.5		3.5
All-Red Time (s)			0.5	0.5	0.5		0.5
Lead/Lag			Lead	Lag	Lag		Lead
Lead-Lag Optimize?			Yes	Yes	Yes		Yes
Recall Mode			None	Min	None		None
Act Effct Green (s)	41.7	41.7	17.0	25.0	16.0	37.0	
Actuated g/C Ratio	0.48	0.48	0.20	0.29	0.18	0.43	
v/c Ratio	0.49	0.34	0.40	0.72	0.05	1.00	
Control Delay	5.6	0.6	35.8	37.7	31.1	43.0	
Queue Delay	0.3	0.0	0.0	0.0	0.0	0.0	
Total Delay	5.9	0.6	35.8	37.7	31.1	43.0	
LOS	A	A	D	D	C	D	
Approach Delay	4.6			37.2	42.8		
Approach LOS	A			D	D		

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 86.8		
Natural Cycle: 100		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.00		
Intersection Signal Delay: 24.9	Intersection LOS: C	
Intersection Capacity Utilization 86.0%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 20: Mission Rd & I-15 SB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	285		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)		50	50	50	50					50	50	50
Trailing Detector (ft)		0	0	0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.974	
Satd. Flow (prot)	0	3539	1417	1583	1863	0	0	0	0	0	1814	1417
Flt Permitted				0.950							0.974	
Satd. Flow (perm)	0	3539	1417	1583	1863	0	0	0	0	0	1814	1417
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			284									532
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		434			744			972			897	
Travel Time (s)		9.9			16.9			22.1			20.4	
Volume (vph)	0	800	270	117	370	0	0	0	0	9	8	865
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	842	284	123	389	0	0	0	0	9	8	911
Lane Group Flow (vph)	0	842	284	123	389	0	0	0	0	0	17	911
v/c Ratio		0.49	0.34	0.40	0.72						0.05	1.00
Control Delay		5.6	0.6	35.8	37.7						31.1	43.0
Queue Delay		0.3	0.0	0.0	0.0						0.0	0.0
Total Delay		5.9	0.6	35.8	37.7						31.1	43.0
Queue Length 50th (ft)		40	0	60	195						8	~284
Queue Length 95th (ft)		m44	m0	115	#330						26	#593
Internal Link Dist (ft)		354			664			892			817	
Turn Bay Length (ft)				285								200
Base Capacity (vph)		1837	872	310	538						335	910
Starvation Cap Reductn		413	0	0	0						0	0
Spillback Cap Reductn		0	0	0	0						0	0
Storage Cap Reductn		0	0	0	0						0	0
Reduced v/c Ratio		0.59	0.33	0.40	0.72						0.05	1.00

Intersection Summary

Area Type: Other

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.97	1.00
Satd. Flow (prot)		3539	1417	1583	1863						1815	1417
Flt Permitted		1.00	1.00	0.95	1.00						0.97	1.00
Satd. Flow (perm)		3539	1417	1583	1863						1815	1417
Volume (vph)	0	800	270	117	370	0	0	0	0	9	8	865
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	842	284	123	389	0	0	0	0	9	8	911
RTOR Reduction (vph)	0	0	147	0	0	0	0	0	0	0	0	305
Lane Group Flow (vph)	0	842	137	123	389	0	0	0	0	0	17	606
Turn Type			Perm	Prot						Split		custom
Protected Phases		2 3		1	2					4	4	1 4
Permitted Phases			2 3									4
Actuated Green, G (s)		41.7	41.7	17.0	25.0						16.0	37.0
Effective Green, g (s)		41.7	41.7	17.0	25.0						16.0	37.0
Actuated g/C Ratio		0.48	0.48	0.20	0.29						0.18	0.43
Clearance Time (s)				4.0	4.0						4.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)		1702	682	310	537						335	605
v/s Ratio Prot		c0.24		0.08	c0.21						0.01	c0.43
v/s Ratio Perm			0.10									
v/c Ratio		0.49	0.20	0.40	0.72						0.05	1.00
Uniform Delay, d1		15.3	12.9	30.4	27.8						29.1	24.9
Progression Factor		0.33	0.02	1.00	1.00						1.00	1.00
Incremental Delay, d2		0.1	0.1	0.8	4.8						0.1	37.0
Delay (s)		5.2	0.3	31.2	32.6						29.2	61.9
Level of Service		A	A	C	C						C	E
Approach Delay (s)		4.0			32.2			0.0			61.3	
Approach LOS		A			C			A			E	

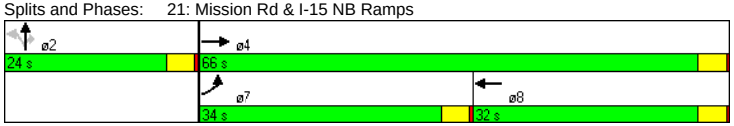
Intersection Summary				
HCM Average Control Delay	30.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.80			
Actuated Cycle Length (s)	86.7	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	86.0%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Volume (vph)	600	178	300	4	80
Turn Type	Prot				Perm
Protected Phases	7	4	8	2	
Permitted Phases					2
Detector Phases	7	4	8	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	66.0	32.0	24.0	24.0
Total Split (%)	37.8%	73.3%	35.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	17.6	37.5	15.5	12.2	12.2
Actuated g/C Ratio	0.30	0.64	0.26	0.21	0.21
v/c Ratio	0.69	0.16	0.67	0.58	0.23
Control Delay	23.7	4.7	28.6	31.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	4.7	28.6	31.2	8.6
LOS	C	A	C	C	A
Approach Delay		19.4	28.6	24.8	
Approach LOS		B	C	C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 58.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 21: Mission Rd & I-15 NB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	300		0	0		0	0		200	0		0
Storage Lanes	2		0	0		0	0		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.995				0.850			
Flt Protected	0.950							0.953				
Satd. Flow (prot)	3072	1863	0	0	1853	0	0	1775	1417	0	0	0
Flt Permitted	0.950							0.953				
Satd. Flow (perm)	3072	1863	0	0	1853	0	0	1775	1417	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				84			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		744			1271			1082			1005	
Travel Time (s)		16.9			28.9			24.6			22.8	
Volume (vph)	600	178	0	0	300	12	200	4	80	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	187	0	0	316	13	211	4	84	0	0	0
Lane Group Flow (vph)	632	187	0	0	329	0	0	215	84	0	0	0
v/c Ratio	0.69	0.16			0.67			0.58	0.23			
Control Delay	23.7	4.7			28.6			31.2	8.6			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	23.7	4.7			28.6			31.2	8.6			
Queue Length 50th (ft)	93	20			97			65	0			
Queue Length 95th (ft)	209	54			241			180	37			
Internal Link Dist (ft)		664			1191			1002			925	
Turn Bay Length (ft)	300								200			
Base Capacity (vph)	1343	1405			758			562	506			
Starvation Cap Reductn	0	0			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.47	0.13			0.43			0.38	0.17			

Intersection Summary	
Area Type:	Other

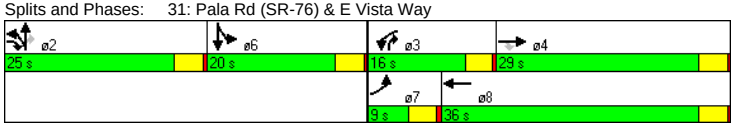
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			1.00			1.00	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3072	1863			1853			1776	1417			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3072	1863			1853			1776	1417			
Volume (vph)	600	178	0	0	300	12	200	4	80	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	187	0	0	316	13	211	4	84	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	66	0	0	0
Lane Group Flow (vph)	632	187	0	0	328	0	0	215	18	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	17.6	37.5			15.9			12.2	12.2			
Effective Green, g (s)	17.6	37.5			15.9			12.2	12.2			
Actuated g/C Ratio	0.31	0.65			0.28			0.21	0.21			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	937	1211			511			376	300			
v/s Ratio Prot	c0.21	0.10			c0.18							
v/s Ratio Perm								0.12	0.01			
v/c Ratio	0.67	0.15			0.64			0.57	0.06			
Uniform Delay, d1	17.5	3.9			18.4			20.4	18.2			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	1.9	0.1			2.7			2.1	0.1			
Delay (s)	19.5	4.0			21.1			22.5	18.3			
Level of Service	B	A			C			C	B			
Approach Delay (s)		15.9			21.1			21.3			0.0	
Approach LOS		B			C			C			A	

Intersection Summary			
HCM Average Control Delay	18.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations									
Volume (vph)	74	950	350	300	1680	300	47	286	200
Turn Type	Prot		pm+ov	Prot		Split		pm+ov	
Protected Phases	7	4	2	3	8	2	2	3	6
Permitted Phases			4					2	
Detector Phases	7	4	2	3	8	2	2	3	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	29.0	25.0	16.0	36.0	25.0	25.0	16.0	20.0
Total Split (%)	10.0%	32.2%	27.8%	17.8%	40.0%	27.8%	27.8%	17.8%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag		Lead	Lag			Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	
Recall Mode	None	None	Max	None	None	Max	Max	None	Max
Act Effct Green (s)	5.0	25.3	50.3	11.7	32.0	21.0	21.0	32.7	16.0
Actuated g/C Ratio	0.06	0.28	0.56	0.13	0.36	0.23	0.23	0.36	0.18
v/c Ratio	0.89	0.70	0.42	0.79	0.99	0.86	0.11	0.43	0.65
Control Delay	114.2	32.2	7.6	53.2	48.8	56.5	28.1	3.2	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	114.2	32.2	7.6	53.2	48.8	56.5	28.1	3.2	26.3
LOS	F	C	A	D	D	E	C	A	C
Approach Delay		30.4			49.5		30.3		26.3
Approach LOS		C			D		C		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.99		
Intersection Signal Delay: 38.5	Intersection LOS: D	
Intersection Capacity Utilization 82.8%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 31: Pala Rd (SR-76) & E Vista Way



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	300		150	450		0	0		200	0		0
Storage Lanes	1		1	2		0	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	0.91	1.00	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.998				0.850		0.919	
Flt Protected	0.950			0.950			0.950				0.999	
Satd. Flow (prot)	1583	5085	1417	3072	5075	0	1583	1863	1417	0	3249	0
Flt Permitted	0.950			0.950			0.950				0.999	
Satd. Flow (perm)	1583	5085	1417	3072	5075	0	1583	1863	1417	0	3249	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170		2				301		173	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		710			526			797			552	
Travel Time (s)		16.1			12.0			18.1			12.5	
Volume (vph)	74	950	350	300	1680	20	300	47	286	6	200	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	78	1000	368	316	1768	21	316	49	301	6	211	254
Lane Group Flow (vph)	78	1000	368	316	1789	0	316	49	301	0	471	0
v/c Ratio	0.89	0.70	0.42	0.79	0.99		0.86	0.11	0.43		0.65	
Control Delay	114.2	32.2	7.6	53.2	48.8		56.5	28.1	3.2		26.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	114.2	32.2	7.6	53.2	48.8		56.5	28.1	3.2		26.3	
Queue Length 50th (ft)	45	186	54	90	365		173	22	0		82	
Queue Length 95th (ft)	#130	234	115	#151	#484		#318	51	28		135	
Internal Link Dist (ft)		630			446			717			472	
Turn Bay Length (ft)	300		150	450					200			
Base Capacity (vph)	88	1428	867	409	1806		369	435	709		720	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.89	0.70	0.42	0.77	0.99		0.86	0.11	0.42		0.65	

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91		1.00	1.00	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85		0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1583	5085	1417	3072	5076		1583	1863	1417		3251	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1583	5085	1417	3072	5076		1583	1863	1417		3251	
Volume (vph)	74	950	350	300	1680	20	300	47	286	6	200	241
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	78	1000	368	316	1768	21	316	49	301	6	211	254
RTOR Reduction (vph)	0	0	83	0	1	0	0	0	192	0	142	0
Lane Group Flow (vph)	78	1000	285	316	1788	0	316	49	109	0	329	0
Turn Type	Prot		pm+ov	Prot			Split		pm+ov	Split		
Protected Phases	7	4	2	3	8		2	2	3	6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	5.0	25.3	46.3	11.7	32.0		21.0	21.0	32.7		16.0	
Effective Green, g (s)	5.0	25.3	46.3	11.7	32.0		21.0	21.0	32.7		16.0	
Actuated g/C Ratio	0.06	0.28	0.51	0.13	0.36		0.23	0.23	0.36		0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	88	1429	792	399	1805		369	435	515		578	
v/s Ratio Prot	0.05	0.20	0.08	c0.10	c0.35		c0.20	0.03	0.03		c0.10	
v/s Ratio Perm			0.12						0.05			
v/c Ratio	0.89	0.70	0.36	0.79	0.99		0.86	0.11	0.21		0.57	
Uniform Delay, d1	42.2	29.0	13.0	38.0	28.8		33.1	27.2	19.8		33.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	59.6	1.5	0.3	10.3	18.9		21.8	0.5	0.2		4.0	
Delay (s)	101.8	30.5	13.3	48.3	47.7		54.8	27.7	20.0		37.9	
Level of Service	F	C	B	D	D		D	C	B		D	
Approach Delay (s)		29.9			47.8			37.1			37.9	
Approach LOS		C			D			D			D	

Intersection Summary				
HCM Average Control Delay	39.8	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.86			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	82.8%	ICU Level of Service	E	
Analysis Period (min)	15			

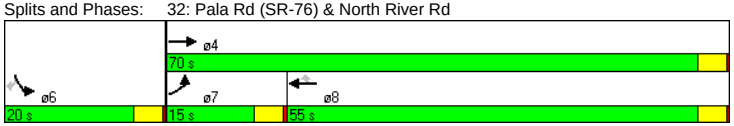
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	170	1150	1900	300	150	185
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	70.0	55.0	55.0	20.0	20.0
Total Split (%)	16.7%	77.8%	61.1%	61.1%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Max	Max
Act Effct Green (s)	11.0	66.0	51.0	51.0	16.0	16.0
Actuated g/C Ratio	0.12	0.73	0.57	0.57	0.18	0.18
v/c Ratio	0.93	0.47	1.00	0.34	0.56	0.47
Control Delay	89.9	5.6	40.1	2.4	42.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.9	5.6	40.1	2.4	42.5	9.2
LOS	F	A	D	A	D	A
Approach Delay		16.4	34.9		24.1	
Approach LOS		B	C		C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 27.7 Intersection LOS: C
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 32: Pala Rd (SR-76) & North River Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	150			0	50	0
Storage Lanes	1			1	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				305		195
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		1356	1400		1286	
Travel Time (s)		30.8	31.8		29.2	
Volume (vph)	170	1150	1900	300	150	185
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	179	1211	2000	316	158	195
Lane Group Flow (vph)	179	1211	2000	316	158	195
v/c Ratio	0.93	0.47	1.00	0.34	0.56	0.47
Control Delay	89.9	5.6	40.1	2.4	42.5	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.9	5.6	40.1	2.4	42.5	9.2
Queue Length 50th (ft)	102	121	555	3	83	0
Queue Length 95th (ft)	#226	155	#765	37	147	57
Internal Link Dist (ft)		1276	1320		1206	
Turn Bay Length (ft)	150				50	
Base Capacity (vph)	193	2595	2005	935	281	412
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.47	1.00	0.34	0.56	0.47

Intersection Summary

Area Type: Other
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

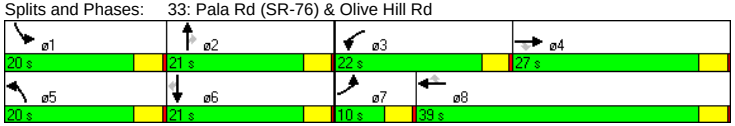
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Volume (vph)	170	1150	1900	300	150	185
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	179	1211	2000	316	158	195
RTOR Reduction (vph)	0	0	0	132	0	160
Lane Group Flow (vph)	179	1211	2000	184	158	35
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	11.0	66.0	51.0	51.0	16.0	16.0
Effective Green, g (s)	11.0	66.0	51.0	51.0	16.0	16.0
Actuated g/C Ratio	0.12	0.73	0.57	0.57	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	193	2595	2005	803	281	252
v/s Ratio Prot	c0.11	0.34	c0.57		c0.10	
v/s Ratio Perm				0.13		0.02
v/c Ratio	0.93	0.47	1.00	0.23	0.56	0.14
Uniform Delay, d1	39.1	4.9	19.4	9.7	33.8	31.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	44.2	0.1	19.4	0.1	7.9	1.1
Delay (s)	83.3	5.0	38.8	9.9	41.7	32.3
Level of Service	F	A	D	A	D	C
Approach Delay (s)		15.1	34.8		36.5	
Approach LOS		B	C		D	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	1100	178	470	1900	200	110	153	250	150	300	193
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	27.0	27.0	22.0	39.0	39.0	20.0	21.0	21.0	20.0	21.0	21.0
Total Split (%)	11.1%	30.0%	30.0%	24.4%	43.3%	43.3%	22.2%	23.3%	23.3%	22.2%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	6.0	23.7	23.7	17.3	35.0	35.0	16.0	17.0	17.0	16.0	17.0	17.0
Actuated g/C Ratio	0.07	0.26	0.26	0.19	0.39	0.39	0.18	0.19	0.19	0.18	0.19	0.19
v/c Ratio	0.99	0.86	0.37	0.84	1.01	0.32	0.41	0.46	0.55	0.29	0.90	0.47
Control Delay	130.6	40.0	6.5	49.1	51.4	6.4	38.0	37.3	9.0	33.8	65.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.6	40.0	6.5	49.1	51.4	6.4	38.0	37.3	9.0	33.8	65.4	8.8
LOS	F	D	A	D	D	A	D	D	A	C	E	A
Approach Delay		42.2			47.5			23.7			41.1	
Approach LOS		D			D			C			D	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.9		Intersection LOS: D	
Intersection Capacity Utilization 78.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 33: Pala Rd (SR-76) & Olive Hill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	250		0	250		200	0		150	150		0
Storage Lanes	1		1	2		1	1		1	2		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			187			170			263			203
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			663			961			1186	
Travel Time (s)		13.3			15.1			21.8			27.0	
Volume (vph)	100	1100	178	470	1900	200	110	153	250	150	300	193
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	1158	187	495	2000	211	116	161	263	158	316	203
Lane Group Flow (vph)	105	1158	187	495	2000	211	116	161	263	158	316	203
v/c Ratio	0.99	0.86	0.37	0.84	1.01	0.32	0.41	0.46	0.55	0.29	0.90	0.47
Control Delay	130.6	40.0	6.5	49.1	51.4	6.4	38.0	37.3	9.0	33.8	65.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.6	40.0	6.5	49.1	51.4	6.4	38.0	37.3	9.0	33.8	65.4	8.8
Queue Length 50th (ft)	61	232	0	139	~419	14	59	82	0	40	177	0
Queue Length 95th (ft)	#165	#311	50	#212	#538	60	111	143	66	69	#329	57
Internal Link Dist (ft)		505			583			881			1106	
Turn Bay Length (ft)	250			250		200			150	150		
Base Capacity (vph)	106	1342	511	609	1978	655	281	352	481	546	352	432
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.86	0.37	0.81	1.01	0.32	0.41	0.46	0.55	0.29	0.90	0.47

Intersection Summary

Area Type: Other

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Volume (vph)	100	1100	178	470	1900	200	110	153	250	150	300	193
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	1158	187	495	2000	211	116	161	263	158	316	203
RTOR Reduction (vph)	0	0	138	0	0	104	0	0	213	0	0	165
Lane Group Flow (vph)	105	1158	49	495	2000	107	116	161	50	158	316	38
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.0	23.7	23.7	17.3	35.0	35.0	16.0	17.0	17.0	16.0	17.0	17.0
Effective Green, g (s)	6.0	23.7	23.7	17.3	35.0	35.0	16.0	17.0	17.0	16.0	17.0	17.0
Actuated g/C Ratio	0.07	0.26	0.26	0.19	0.39	0.39	0.18	0.19	0.19	0.18	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	106	1339	373	591	1978	551	281	352	268	546	352	268
v/s Ratio Prot	0.07	0.23		c0.16	c0.39		c0.07	0.09		0.05	c0.17	
v/s Ratio Perm			0.03			0.08			0.04			0.03
v/c Ratio	0.99	0.86	0.13	0.84	1.01	0.19	0.41	0.46	0.19	0.29	0.90	0.14
Uniform Delay, d1	42.0	31.6	25.3	35.0	27.5	18.2	32.8	32.4	30.7	32.1	35.7	30.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	84.2	6.1	0.2	10.1	23.0	0.2	4.4	4.2	1.5	1.3	27.9	1.1
Delay (s)	126.2	37.7	25.5	45.0	50.5	18.4	37.3	36.6	32.2	33.4	63.6	31.5
Level of Service	F	D	C	D	D	B	D	D	C	C	E	C
Approach Delay (s)		42.5			47.0			34.6			46.9	
Approach LOS		D			D			C			D	

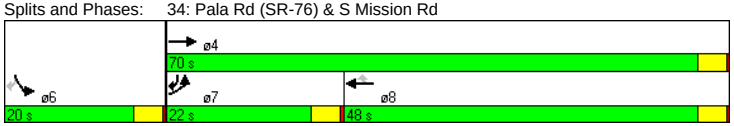
Intersection Summary				
HCM Average Control Delay	44.5	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.86			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	78.8%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	600	900	1700	202	239	900
Turn Type	Prot			Perm		pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	22.0	70.0	48.0	48.0	20.0	22.0
Total Split (%)	24.4%	77.8%	53.3%	53.3%	22.2%	24.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	Max	None
Act Effct Green (s)	18.0	66.0	44.0	44.0	16.0	38.0
Actuated g/C Ratio	0.20	0.73	0.49	0.49	0.18	0.42
v/c Ratio	1.03	0.25	1.03	0.27	0.46	0.90
Control Delay	81.0	4.1	55.2	2.8	36.3	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	4.1	55.2	2.8	36.3	37.4
LOS	F	A	E	A	D	D
Approach Delay		34.9	49.6		37.1	
Approach LOS		C	D		D	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 41.6 Intersection LOS: D
Intersection Capacity Utilization 88.8% ICU Level of Service E
Analysis Period (min) 15

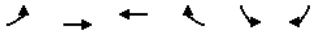
Splits and Phases: 34: Pala Rd (SR-76) & S Mission Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	500			300	500	0
Storage Lanes	2			1	2	2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3072	5085	3539	1417	3072	2493
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3072	5085	3539	1417	3072	2493
Right Turn on Red				Yes		No
Satd. Flow (RTOR)				213		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		565	451		1333	
Travel Time (s)		12.8	10.3		30.3	
Volume (vph)	600	900	1700	202	239	900
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	947	1789	213	252	947
Lane Group Flow (vph)	632	947	1789	213	252	947
v/c Ratio	1.03	0.25	1.03	0.27	0.46	0.90
Control Delay	81.0	4.1	55.2	2.8	36.3	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	4.1	55.2	2.8	36.3	37.4
Queue Length 50th (ft)	~200	53	~581	0	67	277
Queue Length 95th (ft)	#306	67	#717	35	104	#417
Internal Link Dist (ft)		485	371		1253	
Turn Bay Length (ft)	500			300	500	
Base Capacity (vph)	614	3729	1730	802	546	1053
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.25	1.03	0.27	0.46	0.90

Intersection Summary

Area Type: Other
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	5085	3539	1417	3072	2493
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3072	5085	3539	1417	3072	2493
Volume (vph)	600	900	1700	202	239	900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	947	1789	213	252	947
RTOR Reduction (vph)	0	0	0	109	0	0
Lane Group Flow (vph)	632	947	1789	104	252	947
Turn Type	Prot			Perm		pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Actuated Green, G (s)	18.0	66.0	44.0	44.0	16.0	34.0
Effective Green, g (s)	18.0	66.0	44.0	44.0	16.0	34.0
Actuated g/C Ratio	0.20	0.73	0.49	0.49	0.18	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	614	3729	1730	693	546	1053
v/s Ratio Prot	c0.21	0.19	c0.51		0.08	c0.18
v/s Ratio Perm				0.07		0.20
v/c Ratio	1.03	0.25	1.03	0.15	0.46	0.90
Uniform Delay, d1	36.0	3.9	23.0	12.7	33.1	26.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	44.0	0.0	31.0	0.1	2.8	10.3
Delay (s)	80.0	4.0	54.0	12.8	35.9	36.6
Level of Service	F	A	D	B	D	D
Approach Delay (s)		34.4	49.6		36.5	
Approach LOS		C	D		D	

Intersection Summary			
HCM Average Control Delay	41.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	50	2120	1600	110	0	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	53	2232	1684	116	0	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1800				2963	900
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1800				2963	900
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				100	74
cM capacity (veh/h)	339				10	282

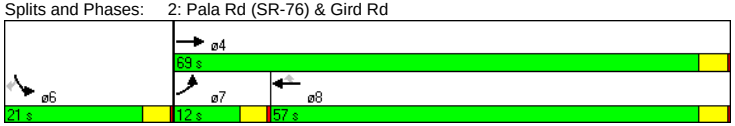
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	53	1116	1116	1123	677	74
Volume Left	53	0	0	0	0	0
Volume Right	0	0	0	0	116	74
cSH	339	1700	1700	1700	1700	282
Volume to Capacity	0.16	0.66	0.66	0.66	0.40	0.26
Queue Length 95th (ft)	14	0	0	0	0	26
Control Delay (s)	17.6	0.0	0.0	0.0	0.0	22.3
Lane LOS	C					C
Approach Delay (s)	0.4			0.0		22.3
Approach LOS						C

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	220	1760	1340	120	60	80
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	69.0	57.0	57.0	21.0	21.0
Total Split (%)	13.3%	76.7%	63.3%	63.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	8.4	44.7	32.2	32.2	8.1	8.1
Actuated g/C Ratio	0.14	0.73	0.53	0.53	0.13	0.13
v/c Ratio	1.07	0.72	0.76	0.17	0.30	0.32
Control Delay	115.2	6.5	14.0	6.1	31.8	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.2	6.5	14.0	6.1	31.8	11.6
LOS	F	A	B	A	C	B
Approach Delay		18.6	13.3		20.3	
Approach LOS		B	B		C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 61.2			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Pala Rd (SR-76) & Gird Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	450			20	0	180
Storage Lanes	1			1	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				30		84
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		3191	8309		1271	
Travel Time (s)		72.5	188.8		28.9	
Volume (vph)	220	1760	1340	120	60	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1853	1411	126	63	84
Lane Group Flow (vph)	232	1853	1411	126	63	84
v/c Ratio	1.07	0.72	0.76	0.17	0.30	0.32
Control Delay	115.2	6.5	14.0	6.1	31.8	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.2	6.5	14.0	6.1	31.8	11.6
Queue Length 50th (ft)	~96	138	186	16	21	0
Queue Length 95th (ft)	#307	260	288	40	66	39
Internal Link Dist (ft)		3111	8229		1191	
Turn Bay Length (ft)	450			20		180
Base Capacity (vph)	217	2836	2313	936	394	416
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.65	0.61	0.13	0.16	0.20

Intersection Summary

Area Type: Other

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Volume (vph)	220	1760	1340	120	60	80
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	1853	1411	126	63	84
RTOR Reduction (vph)	0	0	0	14	0	73
Lane Group Flow (vph)	232	1853	1411	112	63	11
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	8.4	44.7	32.3	32.3	8.1	8.1
Effective Green, g (s)	8.4	44.7	32.3	32.3	8.1	8.1
Actuated g/C Ratio	0.14	0.74	0.53	0.53	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	219	2602	1880	753	211	189
v/s Ratio Prot	c0.15	c0.52	0.40		c0.04	
v/s Ratio Perm				0.08		0.01
v/c Ratio	1.06	0.71	0.75	0.15	0.30	0.06
Uniform Delay, d1	26.2	4.5	11.1	7.3	23.8	23.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	77.4	0.9	1.7	0.1	0.8	0.1
Delay (s)	103.6	5.4	12.8	7.3	24.6	23.2
Level of Service	F	A	B	A	C	C
Approach Delay (s)		16.3	12.4		23.8	
Approach LOS		B	B		C	

Intersection Summary				
HCM Average Control Delay	15.0	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.68			
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	64.4%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	10	1600	1600	10	0	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	1684	1684	11	0	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1695				2553	847
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1695				2553	847
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				100	93
cM capacity (veh/h)	372				21	305

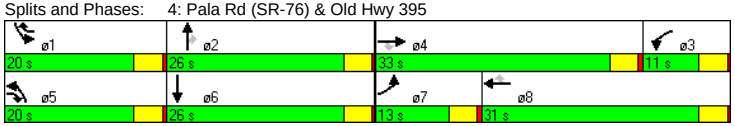
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	11	842	842	1123	572	21
Volume Left	11	0	0	0	0	0
Volume Right	0	0	0	0	11	21
cSH	372	1700	1700	1700	1700	305
Volume to Capacity	0.03	0.50	0.50	0.66	0.34	0.07
Queue Length 95th (ft)	2	0	0	0	0	6
Control Delay (s)	15.0	0.0	0.0	0.0	0.0	17.7
Lane LOS	B					C
Approach Delay (s)	0.1			0.0		17.7
Approach LOS						C

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		54.5%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	130	1000	140	100	960	290	220	290	140	340	210
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot	
Protected Phases	7	4	5	3	8	1	5	2		1	6
Permitted Phases			4			8			2		
Detector Phases	7	4	5	3	8	1	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	33.0	20.0	11.0	31.0	20.0	20.0	26.0	26.0	20.0	26.0
Total Split (%)	14.4%	36.7%	22.2%	12.2%	34.4%	22.2%	22.2%	28.9%	28.9%	22.2%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	9.1	27.9	42.9	7.6	26.4	44.7	15.0	21.0	21.0	14.2	20.2
Actuated g/C Ratio	0.10	0.32	0.49	0.09	0.30	0.51	0.17	0.24	0.24	0.16	0.23
v/c Ratio	0.83	0.93	0.19	0.76	0.94	0.37	0.85	0.68	0.32	0.71	0.89
Control Delay	78.6	43.8	1.8	75.5	47.3	5.6	63.7	38.8	7.1	43.1	53.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	43.8	1.8	75.5	47.3	5.6	63.7	38.8	7.1	43.1	53.2
LOS	E	D	A	E	D	A	E	D	A	D	D
Approach Delay		42.7			40.4			40.4			48.4
Approach LOS		D			D			D			D

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 86.8		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 42.6	Intersection LOS: D	
Intersection Capacity Utilization 82.4%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 4: Pala Rd (SR-76) & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	330		0	150		150	0		0	0		0
Storage Lanes	1		0	1		1	1		1	2		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850		0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1742	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1742	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147			204			147		40	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		652			462			899			4464	
Travel Time (s)		14.8			10.5			20.4			101.5	
Volume (vph)	130	1000	140	100	960	290	220	290	140	340	210	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	137	1053	147	105	1011	305	232	305	147	358	221	168
Lane Group Flow (vph)	137	1053	147	105	1011	305	232	305	147	358	389	0
v/c Ratio	0.83	0.93	0.19	0.76	0.94	0.37	0.85	0.68	0.32	0.71	0.89	
Control Delay	78.6	43.8	1.8	75.5	47.3	5.6	63.7	38.8	7.1	43.1	53.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	78.6	43.8	1.8	75.5	47.3	5.6	63.7	38.8	7.1	43.1	53.2	
Queue Length 50th (ft)	78	301	0	60	294	28	128	157	0	98	191	
Queue Length 95th (ft)	#184	#428	18	#155	#425	75	#251	247	46	145	#350	
Internal Link Dist (ft)		572			382			819			4384	
Turn Bay Length (ft)	330			150		150						
Base Capacity (vph)	165	1170	782	138	1097	817	289	473	469	557	464	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.83	0.90	0.19	0.76	0.92	0.37	0.80	0.64	0.31	0.64	0.84	

Intersection Summary

Area Type: Other

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1742	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1583	3539	1417	1583	3539	1417	1583	1863	1417	3072	1742	
Volume (vph)	130	1000	140	100	960	290	220	290	140	340	210	160
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	137	1053	147	105	1011	305	232	305	147	358	221	168
RTOR Reduction (vph)	0	0	74	0	0	108	0	0	111	0	31	0
Lane Group Flow (vph)	137	1053	73	105	1011	197	232	305	36	358	358	0
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		Perm	Prot		
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	9.1	27.9	42.9	7.6	26.4	40.6	15.0	21.0	21.0	14.2	20.2	
Effective Green, g (s)	9.1	27.9	42.9	7.6	26.4	40.6	15.0	21.0	21.0	14.2	20.2	
Actuated g/C Ratio	0.10	0.32	0.49	0.09	0.30	0.47	0.17	0.24	0.24	0.16	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	166	1139	701	139	1078	729	274	451	343	503	406	
v/s Ratio Prot	0.09	c0.30	0.02	0.07	c0.29	0.04	c0.15	0.16		0.12	c0.21	
v/s Ratio Perm			0.03			0.09			0.03			
v/c Ratio	0.83	0.92	0.10	0.76	0.94	0.27	0.85	0.68	0.10	0.71	0.88	
Uniform Delay, d1	38.0	28.4	11.7	38.6	29.4	14.0	34.7	29.8	25.5	34.3	32.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	27.1	12.4	0.1	20.6	14.7	0.2	20.8	4.0	0.1	4.7	19.6	
Delay (s)	65.1	40.8	11.7	59.2	44.0	14.2	55.5	33.8	25.7	39.0	51.7	
Level of Service	E	D	B	E	D	B	E	C	C	D	D	
Approach Delay (s)		40.1			38.8			39.4			45.6	
Approach LOS		D			D			D			D	

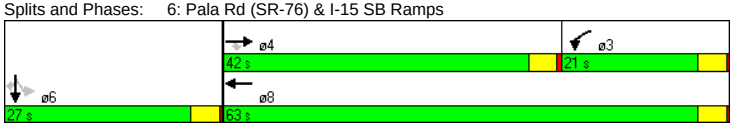
Intersection Summary				
HCM Average Control Delay	40.5	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.88			
Actuated Cycle Length (s)	86.7	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	82.4%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Volume (vph)	1150	300	400	860	240	10	520
Turn Type		Perm	Prot		Perm		Perm
Protected Phases	4		3	8		6	
Permitted Phases		4			6		6
Detector Phases	4	4	3	8	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	21.0	63.0	27.0	27.0	27.0
Total Split (%)	46.7%	46.7%	23.3%	70.0%	30.0%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	36.2	36.2	15.4	55.7	26.3	26.3	26.3
Actuated g/C Ratio	0.40	0.40	0.17	0.62	0.29	0.29	0.29
v/c Ratio	0.85	0.42	0.80	0.41	0.49	0.57	0.53
Control Delay	30.9	3.8	51.5	11.8	32.7	17.5	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	3.8	51.5	11.8	32.7	17.5	15.2
LOS	C	A	D	B	C	B	B
Approach Delay	25.3			24.4		20.7	
Approach LOS	C			C		C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 40 (44%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 24.0 Intersection LOS: C
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Pala Rd (SR-76) & I-15 SB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	500		0	0		0	0		900
Storage Lanes	0		1	2		0	0		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)		50	50	50	50					50	50	50
Trailing Detector (ft)		0	0	0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.91	0.95
Frt			0.850								0.873	0.850
Flt Protected				0.950						0.950	0.994	
Satd. Flow (prot)	0	3539	1417	3072	3539	0	0	0	0	1504	1471	1346
Flt Permitted				0.950						0.950	0.994	
Satd. Flow (perm)	0	3539	1417	3072	3539	0	0	0	0	1504	1471	1346
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			316								178	178
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		654			1271			961			1209	
Travel Time (s)		14.9			28.9			21.8			27.5	
Volume (vph)	0	1150	300	400	860	0	0	0	0	240	10	520
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1211	316	421	905	0	0	0	0	253	11	547
Lane Group Flow (vph)	0	1211	316	421	905	0	0	0	0	215	318	278
v/c Ratio		0.85	0.42	0.80	0.41					0.49	0.57	0.53
Control Delay		30.9	3.8	51.5	11.8					32.7	17.5	15.2
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Total Delay		30.9	3.8	51.5	11.8					32.7	17.5	15.2
Queue Length 50th (ft)		297	0	119	235					115	75	49
Queue Length 95th (ft)		396	48	m152	m300					189	174	134
Internal Link Dist (ft)		574			1191			881			1129	
Turn Bay Length (ft)				500								900
Base Capacity (vph)		1515	787	581	2341					449	564	527
Starvation Cap Reductn		0	0	0	0					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.80	0.40	0.72	0.39					0.48	0.56	0.53

Intersection Summary

Area Type: Other
m Volume for 95th percentile queue is metered by upstream signal.

PM Existing + Cumulative + Project
6: Pala Rd (SR-76) & I-15 SB Ramps

With Mitigation
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	0.97	0.95					0.95	0.91	0.95
Frt		1.00	0.85	1.00	1.00					1.00	0.87	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.99	1.00
Satd. Flow (prot)		3539	1417	3072	3539					1504	1471	1346
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.99	1.00
Satd. Flow (perm)		3539	1417	3072	3539					1504	1471	1346
Volume (vph)	0	1150	300	400	860	0	0	0	0	240	10	520
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1211	316	421	905	0	0	0	0	253	11	547
RTOR Reduction (vph)	0	0	189	0	0	0	0	0	0	0	126	126
Lane Group Flow (vph)	0	1211	127	421	905	0	0	0	0	215	192	152
Turn Type			Perm	Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4							6		6
Actuated Green, G (s)		36.2	36.2	15.5	55.7					26.3	26.3	26.3
Effective Green, g (s)		36.2	36.2	15.5	55.7					26.3	26.3	26.3
Actuated g/C Ratio		0.40	0.40	0.17	0.62					0.29	0.29	0.29
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1423	570	529	2190					440	430	393
v/s Ratio Prot		c0.34		c0.14	0.26							
v/s Ratio Perm			0.09							c0.14	0.13	0.11
v/c Ratio		0.85	0.22	0.80	0.41					0.49	0.45	0.39
Uniform Delay, d1		24.4	17.7	35.7	8.8					26.3	25.9	25.4
Progression Factor		1.00	1.00	1.22	1.34					1.00	1.00	1.00
Incremental Delay, d2		5.1	0.2	5.4	0.1					3.8	3.3	2.9
Delay (s)		29.6	17.9	48.8	11.9					30.1	29.3	28.3
Level of Service		C	B	D	B					C	C	C
Approach Delay (s)		27.1			23.6			0.0			29.2	
Approach LOS		C			C			A			C	

Intersection Summary				
HCM Average Control Delay	26.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.72			
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	69.1%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

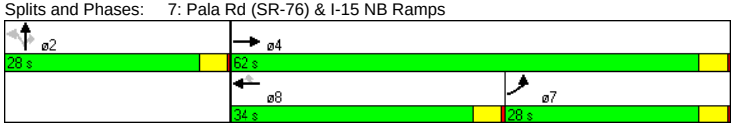
PM Existing + Cumulative + Project
7: Pala Rd (SR-76) & I-15 NB Ramps

With Mitigation
Timings

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Volume (vph)	600	820	900	270	400	10	370
Turn Type	Prot			Perm	Perm		Perm
Protected Phases	7	4	8			2	
Permitted Phases				8	2		2
Detector Phases	7	4	8	8	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	62.0	34.0	34.0	28.0	28.0	28.0
Total Split (%)	31.1%	68.9%	37.8%	37.8%	31.1%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lag		Lead	Lead			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	22.3	55.2	28.9	28.9	26.8	26.8	26.8
Actuated g/C Ratio	0.25	0.61	0.32	0.32	0.30	0.30	0.30
v/c Ratio	0.83	0.40	0.83	0.54	0.52	0.59	0.57
Control Delay	48.7	14.4	35.7	19.5	32.8	31.8	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	14.4	35.7	19.5	32.8	31.8	15.8
LOS	D	B	D	B	C	C	B
Approach Delay		28.9	32.0			26.2	
Approach LOS		C	C			C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.83		
Intersection Signal Delay: 29.3	Intersection LOS: C	
Intersection Capacity Utilization 69.1%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 7: Pala Rd (SR-76) & I-15 NB Ramps



PM Existing + Cumulative + Project
7: Pala Rd (SR-76) & I-15 NB Ramps

With Mitigation
Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	450		0	0		50	0		800	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50			50	50	50	50	50			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.91	0.95	1.00	1.00	1.00
Frt						0.850		0.955	0.850			
Flt Protected	0.950						0.950	0.968				
Satd. Flow (prot)	3072	3539	0	0	3539	1417	1504	1567	1346	0	0	0
Flt Permitted	0.950						0.950	0.968				
Satd. Flow (perm)	3072	3539	0	0	3539	1417	1504	1567	1346	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						103		24	189			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1271			2232			991			1241	
Travel Time (s)		28.9			50.7			22.5			28.2	
Volume (vph)	600	820	0	0	900	270	400	10	370	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	863	0	0	947	284	421	11	389	0	0	0
Lane Group Flow (vph)	632	863	0	0	947	284	233	285	303	0	0	0
v/c Ratio	0.83	0.40			0.83	0.54	0.52	0.59	0.57			
Control Delay	48.7	14.4			35.7	19.5	32.8	31.8	15.8			
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Total Delay	48.7	14.4			35.7	19.5	32.8	31.8	15.8			
Queue Length 50th (ft)	185	221			243	76	126	150	56			
Queue Length 95th (ft)	m224	m285			332	158	202	242	148			
Internal Link Dist (ft)		1191			2152			911			1161	
Turn Bay Length (ft)	450					50			800			
Base Capacity (vph)	819	2300			1199	548	457	492	541			
Starvation Cap Reductn	0	0			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.77	0.38			0.79	0.52	0.51	0.58	0.56			

Intersection Summary

Area Type: Other

m Volume for 95th percentile queue is metered by upstream signal.

LOS Engineering

PM Existing + Cumulative + Project
7: Pala Rd (SR-76) & I-15 NB Ramps

With Mitigation
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.95	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (prot)	3072	3539			3539	1417	1504	1567	1346			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (perm)	3072	3539			3539	1417	1504	1567	1346			
Volume (vph)	600	820	0	0	900	270	400	10	370	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	863	0	0	947	284	421	11	389	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	70	0	17	133	0	0	0
Lane Group Flow (vph)	632	863	0	0	947	214	233	268	170	0	0	0
Turn Type	Prot					Perm	Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	22.3	55.2			28.9	28.9	26.8	26.8	26.8			
Effective Green, g (s)	22.3	55.2			28.9	28.9	26.8	26.8	26.8			
Actuated g/C Ratio	0.25	0.61			0.32	0.32	0.30	0.30	0.30			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	761	2171			1136	455	448	467	401			
v/s Ratio Prot	c0.21	0.24			c0.27							
v/s Ratio Perm						0.15	0.15	0.17	0.13			
v/c Ratio	0.83	0.40			0.83	0.47	0.52	0.57	0.42			
Uniform Delay, d1	32.1	8.9			28.3	24.4	26.3	26.8	25.4			
Progression Factor	1.31	1.62			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	4.8	0.1			5.4	0.8	4.3	5.1	3.3			
Delay (s)	47.0	14.5			33.7	25.2	30.5	31.8	28.7			
Level of Service	D	B			C	C	C	C	C			
Approach Delay (s)		28.2			31.7			30.3			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM Average Control Delay	29.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

LOS Engineering

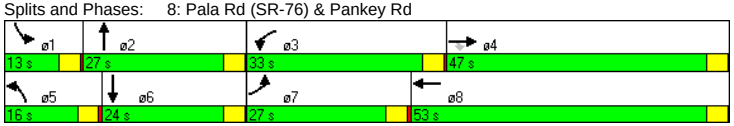
PM Existing + Cumulative + Project
8: Pala Rd (SR-76) & Pankey Rd

With Mitigation
Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	152	750	328	200	600	315	408	106	459
Turn Type	Prot		Perm	Prot		Prot		Prot	
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phases	7	4	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	27.0	47.0	47.0	33.0	53.0	16.0	27.0	13.0	24.0
Total Split (%)	22.5%	39.2%	39.2%	27.5%	44.2%	13.3%	22.5%	10.8%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	14.5	28.1	28.1	17.5	31.2	12.3	23.6	9.2	20.5
Actuated g/C Ratio	0.15	0.30	0.30	0.18	0.33	0.13	0.25	0.10	0.22
v/c Ratio	0.66	0.75	0.52	0.72	0.62	0.83	0.81	0.73	0.90
Control Delay	53.1	35.3	6.0	51.9	28.7	61.9	37.2	72.9	52.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	35.3	6.0	51.9	28.7	61.9	37.2	72.9	52.5
LOS	D	D	A	D	C	E	D	E	D
Approach Delay		29.7			33.9		44.8		55.3
Approach LOS		C			C		D		E

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 94.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 39.6		Intersection LOS: D	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Pala Rd (SR-76) & Pankey Rd



LOS Engineering

PM Existing + Cumulative + Project
8: Pala Rd (SR-76) & Pankey Rd

With Mitigation
Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.982			0.936			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	3539	1417	1583	3476	0	3072	3313	0	1583	3376	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	3539	1417	1583	3476	0	3072	3313	0	1583	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			345		15			140			49	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2232			2833			991			1488	
Travel Time (s)		50.7			64.4			22.5			33.8	
Volume (vph)	152	750	328	200	600	83	315	408	305	106	459	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	160	789	345	211	632	87	332	429	321	112	483	211
Lane Group Flow (vph)	160	789	345	211	719	0	332	750	0	112	694	0
v/c Ratio	0.66	0.75	0.52	0.72	0.62		0.83	0.81		0.73	0.90	
Control Delay	53.1	35.3	6.0	51.9	28.7		61.9	37.2		72.9	52.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.1	35.3	6.0	51.9	28.7		61.9	37.2		72.9	52.5	
Queue Length 50th (ft)	90	221	0	119	183		101	182		66	200	
Queue Length 95th (ft)	183	329	64	224	268		#238	#387		#202	#432	
Internal Link Dist (ft)		2152			2753			911			1408	
Turn Bay Length (ft)												
Base Capacity (vph)	357	1399	769	437	1533		398	929		154	768	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.45	0.56	0.45	0.48	0.47		0.83	0.81		0.73	0.90	

Intersection Summary	
Area Type:	Other
#	95th percentile volume exceeds capacity, queue may be longer.
	Queue shown is maximum after two cycles.

LOS Engineering

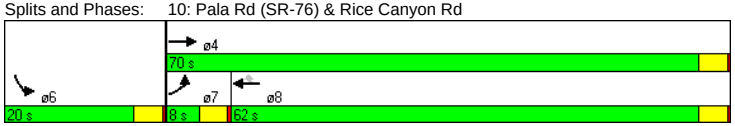
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.94		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	3539	1417	1583	3475		3072	3312		1583	3378	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	3539	1417	1583	3475		3072	3312		1583	3378	
Volume (vph)	152	750	328	200	600	83	315	408	305	106	459	200
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	160	789	345	211	632	87	332	429	321	112	483	211
RTOR Reduction (vph)	0	0	242	0	10	0	0	105	0	0	38	0
Lane Group Flow (vph)	160	789	103	211	709	0	332	645	0	112	656	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	14.5	28.1	28.1	17.5	31.1		12.3	23.6		9.2	20.5	
Effective Green, g (s)	14.5	28.1	28.1	17.5	31.1		12.3	23.6		9.2	20.5	
Actuated g/C Ratio	0.15	0.30	0.30	0.19	0.33		0.13	0.25		0.10	0.22	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	243	1053	422	293	1145		400	828		154	734	
v/s Ratio Prot	0.10	c0.22		c0.13	c0.20		c0.11	c0.19		0.07	c0.19	
v/s Ratio Perm			0.07									
v/c Ratio	0.66	0.75	0.24	0.72	0.62		0.83	0.78		0.73	0.89	
Uniform Delay, d1	37.6	30.0	25.1	36.1	26.7		40.0	33.0		41.4	35.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.3	3.0	0.3	8.4	1.0		13.3	4.7		15.7	13.3	
Delay (s)	43.9	32.9	25.4	44.6	27.7		53.4	37.6		57.1	49.1	
Level of Service	D	C	C	D	C		D	D		E	D	
Approach Delay (s)		32.3			31.5			42.5			50.2	
Approach LOS		C			C			D			D	

Intersection Summary				
HCM Average Control Delay	38.3	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.86			
Actuated Cycle Length (s)	94.4	Sum of lost time (s)	24.0	
Intersection Capacity Utilization	75.6%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Volume (vph)	50	1000	1220	30	50
Turn Type	Prot			Perm	
Protected Phases	7	4	8		6
Permitted Phases				8	
Detector Phases	7	4	8	8	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	70.0	62.0	62.0	20.0
Total Split (%)	8.9%	77.8%	68.9%	68.9%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	Min
Act Effct Green (s)	4.0	64.5	58.3	58.3	9.1
Actuated g/C Ratio	0.05	0.79	0.71	0.71	0.11
v/c Ratio	0.70	0.72	0.97	0.03	0.56
Control Delay	84.6	8.3	32.1	2.1	27.6
Queue Delay	0.0	0.1	43.3	0.0	0.0
Total Delay	84.6	8.4	75.4	2.1	27.7
LOS	F	A	E	A	C
Approach Delay		12.0	73.7		27.7
Approach LOS		B	E		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 81.6		
Natural Cycle: 100		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 44.6	Intersection LOS: D	
Intersection Capacity Utilization 78.8%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 10: Pala Rd (SR-76) & Rice Canyon Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.921	
Flt Protected	0.950				0.980	
Satd. Flow (prot)	1583	1863	1863	1417	1504	0
Flt Permitted	0.950				0.980	
Satd. Flow (perm)	1583	1863	1863	1417	1504	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				31	68	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		5160	470		1120	
Travel Time (s)		117.3	10.7		25.5	
Volume (vph)	50	1000	1220	30	50	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	1053	1284	32	53	74
Lane Group Flow (vph)	53	1053	1284	32	127	0
v/c Ratio	0.70	0.72	0.97	0.03	0.56	
Control Delay	84.6	8.3	32.1	2.1	27.6	
Queue Delay	0.0	0.1	43.3	0.0	0.0	
Total Delay	84.6	8.4	75.4	2.1	27.7	
Queue Length 50th (ft)	28	181	538	0	29	
Queue Length 95th (ft)	#94	440	#1036	9	82	
Internal Link Dist (ft)		5080	390		1040	
Turn Bay Length (ft)						
Base Capacity (vph)	76	1479	1330	1021	328	
Starvation Cap Reductn	0	0	166	0	0	
Spillback Cap Reductn	0	33	0	0	6	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.70	0.73	1.10	0.03	0.39	

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.92	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1583	1863	1863	1417	1504	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1583	1863	1863	1417	1504	
Volume (vph)	50	1000	1220	30	50	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	1053	1284	32	53	74
RTOR Reduction (vph)	0	0	0	9	60	0
Lane Group Flow (vph)	53	1053	1284	23	67	0
Turn Type	Prot			Perm		
Protected Phases	7	4	8		6	
Permitted Phases				8		
Actuated Green, G (s)	3.1	65.4	58.3	58.3	9.1	
Effective Green, g (s)	3.1	65.4	58.3	58.3	9.1	
Actuated g/C Ratio	0.04	0.79	0.71	0.71	0.11	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	59	1477	1317	1001	166	
v/s Ratio Prot	0.03	c0.57	c0.69		c0.04	
v/s Ratio Perm				0.02		
v/c Ratio	0.90	0.71	0.97	0.02	0.40	
Uniform Delay, d1	39.5	4.1	11.4	3.6	34.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	80.5	1.7	18.9	0.0	1.6	
Delay (s)	120.0	5.7	30.3	3.6	35.7	
Level of Service	F	A	C	A	D	
Approach Delay (s)		11.2	29.7		35.7	
Approach LOS		B	C		D	

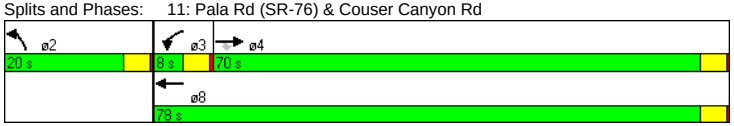
Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	82.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Volume (vph)	890	70	30	1150	60
Turn Type		Perm	Prot		
Protected Phases	4		3	8	2
Permitted Phases		4			
Detector Phases	4	4	3	8	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	70.0	70.0	8.0	78.0	20.0
Total Split (%)	71.4%	71.4%	8.2%	79.6%	20.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	Min
Act Effct Green (s)	44.3	44.3	4.4	46.6	8.9
Actuated g/C Ratio	0.68	0.68	0.06	0.72	0.14
v/c Ratio	0.73	0.07	0.32	0.90	0.33
Control Delay	11.1	1.4	49.6	17.5	34.1
Queue Delay	1.1	0.0	0.0	1.4	0.1
Total Delay	12.2	1.4	49.6	18.9	34.1
LOS	B	A	D	B	C
Approach Delay	11.4			19.7	34.1
Approach LOS	B			B	C

Intersection Summary

Cycle Length: 98
Actuated Cycle Length: 64.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: Pala Rd (SR-76) & Couser Canyon Rd



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1700	1700	1900	1700	1700
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.980	
Flt Protected			0.950		0.959	
Satd. Flow (prot)	1863	1417	1583	1863	1566	0
Flt Permitted			0.950		0.959	
Satd. Flow (perm)	1863	1417	1583	1863	1566	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		74			8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	470			11023	1081	
Travel Time (s)	10.7			250.5	24.6	
Volume (vph)	890	70	30	1150	60	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	937	74	32	1211	63	11
Lane Group Flow (vph)	937	74	32	1211	74	0
v/c Ratio	0.73	0.07	0.32	0.90	0.33	
Control Delay	11.1	1.4	49.6	17.5	34.1	
Queue Delay	1.1	0.0	0.0	1.4	0.1	
Total Delay	12.2	1.4	49.6	18.9	34.1	
Queue Length 50th (ft)	131	0	12	241	23	
Queue Length 95th (ft)	459	12	#60	618	79	
Internal Link Dist (ft)	390			10943	1001	
Turn Bay Length (ft)						
Base Capacity (vph)	1440	1112	100	1522	386	
Starvation Cap Reductn	263	0	0	0	0	
Spillback Cap Reductn	0	0	0	146	28	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.80	0.07	0.32	0.88	0.21	

Intersection Summary

Area Type: Other
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

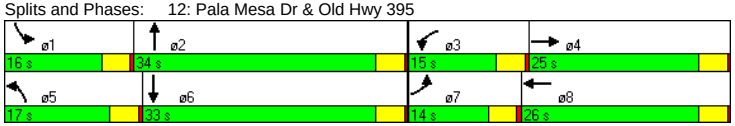
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1700	1700	1900	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1417	1583	1863	1567	
Flt Permitted	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (perm)	1863	1417	1583	1863	1567	
Volume (vph)	890	70	30	1150	60	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	937	74	32	1211	63	11
RTOR Reduction (vph)	0	25	0	0	7	0
Lane Group Flow (vph)	937	49	32	1211	67	0
Turn Type		Perm	Prot			
Protected Phases	4		3	8	2	
Permitted Phases		4				
Actuated Green, G (s)	44.3	44.3	1.1	49.4	8.9	
Effective Green, g (s)	44.3	44.3	1.1	49.4	8.9	
Actuated g/C Ratio	0.67	0.67	0.02	0.75	0.13	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1245	947	26	1388	210	
v/s Ratio Prot	0.50		0.02	c0.65	c0.04	
v/s Ratio Perm		0.03				
v/c Ratio	0.75	0.05	1.23	0.87	0.32	
Uniform Delay, d1	7.3	3.8	32.6	6.2	26.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	0.0	254.5	6.3	0.9	
Delay (s)	10.0	3.8	287.1	12.5	26.8	
Level of Service	A	A	F	B	C	
Approach Delay (s)	9.5			19.6	26.8	
Approach LOS	A			B	C	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	66.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	150	150	174	181	110	810	194	480
Turn Type	Prot		Prot		Prot		Prot	
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phases	7	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	25.0	15.0	26.0	17.0	34.0	16.0	33.0
Total Split (%)	15.6%	27.8%	16.7%	28.9%	18.9%	37.8%	17.8%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	10.0	20.1	11.0	21.1	10.8	28.8	12.0	32.4
Actuated g/C Ratio	0.11	0.23	0.12	0.24	0.12	0.33	0.14	0.37
v/c Ratio	0.88	0.83	0.92	0.93	0.61	0.92	0.94	0.46
Control Delay	82.6	44.1	88.4	58.2	51.1	41.1	89.0	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.6	44.1	88.4	58.2	51.1	41.1	89.0	23.2
LOS	F	D	F	E	D	D	F	C
Approach Delay		55.6		67.2		42.1		40.1
Approach LOS		E		E		D		D

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 88		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 48.9	Intersection LOS: D	
Intersection Capacity Utilization 86.5%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 12: Pala Mesa Dr & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	0		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.914			0.917			0.972			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1703	0	1583	1708	0	1583	3440	0	1583	3465	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	1703	0	1583	1708	0	1583	3440	0	1583	3465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			66			34			22	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3628			1500			4464			5461	
Travel Time (s)		82.5			34.1			101.5			124.1	
Volume (vph)	150	150	200	174	181	227	110	810	189	194	480	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	158	211	183	191	239	116	853	199	204	505	84
Lane Group Flow (vph)	158	369	0	183	430	0	116	1052	0	204	589	0
v/c Ratio	0.88	0.83		0.92	0.93		0.61	0.92		0.94	0.46	
Control Delay	82.6	44.1		88.4	58.2		51.1	41.1		89.0	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	82.6	44.1		88.4	58.2		51.1	41.1		89.0	23.2	
Queue Length 50th (ft)	90	163		105	206		63	288		117	133	
Queue Length 95th (ft)	#206	#311		#233	#387		116	#412		#254	188	
Internal Link Dist (ft)		3548			1420			4384			5381	
Turn Bay Length (ft)							150			200		
Base Capacity (vph)	180	456		198	473		223	1180		216	1291	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.81		0.92	0.91		0.52	0.89		0.94	0.46	

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.91		1.00	0.92		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	1703		1583	1707		1583	3439		1583	3464	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	1703		1583	1707		1583	3439		1583	3464	
Volume (vph)	150	150	200	174	181	227	110	810	189	194	480	80
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	158	211	183	191	239	116	853	199	204	505	84
RTOR Reduction (vph)	0	54	0	0	50	0	0	23	0	0	14	0
Lane Group Flow (vph)	158	315	0	183	380	0	116	1029	0	204	575	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	10.0	20.1		11.0	21.1		9.3	29.7		12.0	32.4	
Effective Green, g (s)	10.0	20.1		11.0	21.1		9.3	29.7		12.0	32.4	
Actuated g/C Ratio	0.11	0.23		0.12	0.24		0.10	0.33		0.14	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	178	385		196	406		166	1150		214	1264	
v/s Ratio Prot	0.10	0.18		c0.12	c0.22		0.07	c0.30		c0.13	c0.17	
v/s Ratio Perm												
v/c Ratio	0.89	0.82		0.93	0.94		0.70	0.90		0.95	0.45	
Uniform Delay, d1	38.8	32.6		38.5	33.2		38.4	28.1		38.1	21.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	37.2	12.7		45.5	28.7		12.1	9.2		48.1	0.3	
Delay (s)	76.0	45.3		84.0	61.8		50.5	37.3		86.2	21.7	
Level of Service	E	D		F	E		D	D		F	C	
Approach Delay (s)		54.5			68.5			38.6			38.3	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	47.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

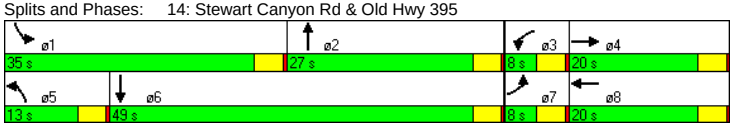
c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	10	16	26	6	60	710	469	690
Turn Type	Prot		Prot		Prot		Prot	
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phases	7	4	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	13.0	27.0	35.0	49.0
Total Split (%)	8.9%	22.2%	8.9%	22.2%	14.4%	30.0%	38.9%	54.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	4.2	7.9	4.2	9.2	7.6	19.1	25.3	42.1
Actuated g/C Ratio	0.06	0.12	0.06	0.14	0.11	0.28	0.37	0.62
v/c Ratio	0.12	0.22	0.30	0.71	0.38	0.78	0.83	0.37
Control Delay	43.5	19.4	47.3	11.9	40.6	30.8	35.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	19.4	47.3	11.9	40.6	30.8	35.8	9.0
LOS	D	B	D	B	D	C	D	A
Approach Delay		23.8		14.3		31.5		19.2
Approach LOS		C		B		C		B

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 67.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 22.5 Intersection LOS: C
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 14: Stewart Canyon Rd & Old Hwy 395



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	200		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.902			0.852			0.995			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	1680	0	1583	1587	0	1583	3522	0	1583	3483	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	1680	0	1583	1587	0	1583	3522	0	1583	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			376			4			20	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1302			7424			5461			3410	
Travel Time (s)		29.6			168.7			124.1			77.5	
Volume (vph)	10	16	30	26	6	357	60	710	26	469	690	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	17	32	27	6	376	63	747	27	494	726	84
Lane Group Flow (vph)	11	49	0	27	382	0	63	774	0	494	810	0
v/c Ratio	0.12	0.22		0.30	0.71		0.38	0.78		0.83	0.37	
Control Delay	43.5	19.4		47.3	11.9		40.6	30.8		35.8	9.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	43.5	19.4		47.3	11.9		40.6	30.8		35.8	9.0	
Queue Length 50th (ft)	4	7		11	2		25	146		166	75	
Queue Length 95th (ft)	23	39		#45	83		74	#317		#455	194	
Internal Link Dist (ft)		1222			7344			5381			3330	
Turn Bay Length (ft)				200			100			100		
Base Capacity (vph)	90	395		91	647		200	1170		684	2253	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.12		0.30	0.59		0.32	0.66		0.72	0.36	

Intersection Summary

Area Type: Other
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

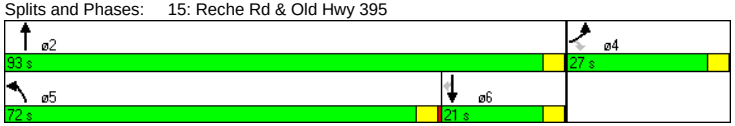
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.90		1.00	0.85		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1583	1680		1583	1588		1583	3521		1583	3484	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1583	1680		1583	1588		1583	3521		1583	3484	
Volume (vph)	10	16	30	26	6	357	60	710	26	469	690	80
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	17	32	27	6	376	63	747	27	494	726	84
RTOR Reduction (vph)	0	28	0	0	328	0	0	3	0	0	8	0
Lane Group Flow (vph)	11	21	0	27	54	0	63	771	0	494	802	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.6	8.5		1.3	9.2		4.4	21.2		25.3	42.1	
Effective Green, g (s)	0.6	8.5		1.3	9.2		4.4	21.2		25.3	42.1	
Actuated g/C Ratio	0.01	0.12		0.02	0.13		0.06	0.29		0.35	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	13	198		28	202		96	1032		554	2029	
v/s Ratio Prot	0.01	0.01		c0.02	c0.03		0.04	c0.22		c0.31	0.23	
v/s Ratio Perm												
v/c Ratio	0.85	0.10		0.96	0.27		0.66	0.75		0.89	0.40	
Uniform Delay, d1	35.8	28.5		35.5	28.5		33.2	23.1		22.2	8.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	166.4	0.2		153.8	0.7		15.0	3.0		16.5	0.1	
Delay (s)	202.2	28.7		189.2	29.2		48.2	26.1		38.7	8.3	
Level of Service	F	C		F	C		D	C		D	A	
Approach Delay (s)		60.5			39.8			27.8			19.8	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	72.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	290	250	870	330	210	350
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	72.0	93.0	21.0	21.0
Total Split (%)	22.5%	22.5%	60.0%	77.5%	17.5%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	23.0	23.0	68.1	84.9	12.8	12.8
Actuated g/C Ratio	0.20	0.20	0.59	0.73	0.11	0.11
v/c Ratio	0.97	0.53	0.99	0.13	0.57	0.76
Control Delay	91.0	9.3	51.1	4.7	54.6	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.0	9.3	51.1	4.7	54.6	15.9
LOS	F	A	D	A	D	B
Approach Delay	53.2			38.3	30.4	
Approach LOS	D			D	C	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 115.9		
Natural Cycle: 120		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.99		
Intersection Signal Delay: 39.9	Intersection LOS: D	
Intersection Capacity Utilization 87.6%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 15: Reche Rd & Old Hwy 395



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1900	1900	1700
Storage Length (ft)	0	0	150			0
Storage Lanes	1	1	1			1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1583	1417	1583	3539	3539	1417
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1583	1417	1583	3539	3539	1417
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		263				368
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	2635			3410	4960	
Travel Time (s)	59.9			77.5	112.7	
Volume (vph)	290	250	870	330	210	350
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	263	916	347	221	368
Lane Group Flow (vph)	305	263	916	347	221	368
v/c Ratio	0.97	0.53	0.99	0.13	0.57	0.76
Control Delay	91.0	9.3	51.1	4.7	54.6	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.0	9.3	51.1	4.7	54.6	15.9
Queue Length 50th (ft)	227	0	628	35	83	0
Queue Length 95th (ft)	#426	75	#1002	48	124	99
Internal Link Dist (ft)	2555			3330	4880	
Turn Bay Length (ft)			150			
Base Capacity (vph)	314	492	929	2625	501	517
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.53	0.99	0.13	0.44	0.71

Intersection Summary	
Area Type:	Other

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1700	1900	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1583	1417	1583	3539	3539	1417
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1583	1417	1583	3539	3539	1417
Volume (vph)	290	250	870	330	210	350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	263	916	347	221	368
RTOR Reduction (vph)	0	211	0	0	0	327
Lane Group Flow (vph)	305	52	916	347	221	41
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	23.0	23.0	68.0	84.9	12.9	12.9
Effective Green, g (s)	23.0	23.0	68.0	84.9	12.9	12.9
Actuated g/C Ratio	0.20	0.20	0.59	0.73	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	314	281	929	2592	394	158
v/s Ratio Prot	c0.19		c0.58	0.10	c0.06	
v/s Ratio Perm		0.04				0.03
v/c Ratio	0.97	0.19	0.99	0.13	0.56	0.26
Uniform Delay, d1	46.1	38.7	23.5	4.6	48.8	47.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	42.8	0.3	25.9	0.0	1.8	0.9
Delay (s)	88.9	39.0	49.4	4.6	50.6	48.0
Level of Service	F	D	D	A	D	D
Approach Delay (s)	65.8			37.1	49.0	
Approach LOS	E			D	D	

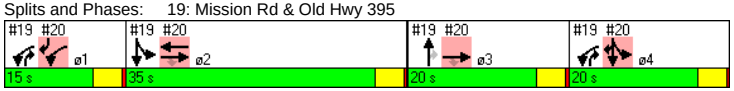
Intersection Summary				
HCM Average Control Delay	46.7	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.93			
Actuated Cycle Length (s)	115.9	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	87.6%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø4
Lane Configurations								
Volume (vph)	380	840	120	280	1050	70		
Turn Type		Free		pm+ov	Split			
Protected Phases	1 4		3	1 4	2	2	1	4
Permitted Phases		Free		3				
Detector Phases	1 4		3	1 4	2	2		
Minimum Initial (s)			4.0		4.0	4.0	4.0	4.0
Minimum Split (s)			20.0		20.0	20.0	8.0	20.0
Total Split (s)	35.0	0.0	20.0	35.0	35.0	35.0	15.0	20.0
Total Split (%)	38.9%	0.0%	22.2%	38.9%	38.9%	38.9%	17%	22%
Yellow Time (s)			3.5		3.5	3.5	3.5	3.5
All-Red Time (s)			0.5		0.5	0.5	0.5	0.5
Lead/Lag			Lead		Lag	Lag	Lead	Lag
Lead-Lag Optimize?			Yes		Yes	Yes	Yes	Yes
Recall Mode			None		Min	Min	None	None
Act Effct Green (s)	31.0	88.5	14.4	49.5	31.0	31.0		
Actuated g/C Ratio	0.35	1.00	0.16	0.56	0.35	0.35		
v/c Ratio	0.72	0.62	0.42	0.37	1.03	0.11		
Control Delay	33.9	2.0	37.6	12.5	64.4	20.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	33.9	2.0	37.6	12.5	64.4	20.7		
LOS	C	A	D	B	E	C		
Approach Delay	11.9		20.0			61.7		
Approach LOS	B		B			E		

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 88.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 33.4 Intersection LOS: C
Intersection Capacity Utilization 70.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 19: Mission Rd & Old Hwy 395



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1900	1700	1700	1900
Storage Length (ft)	0	130		210	100	
Storage Lanes	1	1		1	2	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	1417	1863	1417	3072	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	1417	1863	1417	3072	1863
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	434		4960			1035
Travel Time (s)	9.9		112.7			23.5
Volume (vph)	380	840	120	280	1050	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	400	884	126	295	1105	74
Lane Group Flow (vph)	400	884	126	295	1105	74
v/c Ratio	0.72	0.62	0.42	0.37	1.03	0.11
Control Delay	33.9	2.0	37.6	12.5	64.4	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	2.0	37.6	12.5	64.4	20.7
Queue Length 50th (ft)	189	26	64	86	~354	28
Queue Length 95th (ft)	m230	m20	117	140	#478	59
Internal Link Dist (ft)	354		4880			955
Turn Bay Length (ft)		130		210	100	
Base Capacity (vph)	555	1417	337	792	1077	654
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.62	0.37	0.37	1.03	0.11

Intersection Summary

Area Type: Other
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

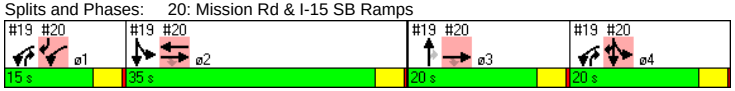
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1700	1700	1900	1700	1700	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	1417	1863	1417	3072	1863
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	1417	1863	1417	3072	1863
Volume (vph)	380	840	120	280	1050	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	400	884	126	295	1105	74
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	400	884	126	295	1105	74
Turn Type		Free		pm+ov	Split	
Protected Phases	1 4		3	1 4	2	2
Permitted Phases		Free		3		
Actuated Green, G (s)	31.0	88.4	14.4	45.4	31.0	31.0
Effective Green, g (s)	31.0	88.4	14.4	45.4	31.0	31.0
Actuated g/C Ratio	0.35	1.00	0.16	0.51	0.35	0.35
Clearance Time (s)			4.0		4.0	4.0
Vehicle Extension (s)			3.0		3.0	3.0
Lane Grp Cap (vph)	555	1417	303	792	1077	653
v/s Ratio Prot	c0.25		0.07	0.13	c0.36	0.04
v/s Ratio Perm		c0.62		0.08		
v/c Ratio	0.72	0.62	0.42	0.37	1.03	0.11
Uniform Delay, d1	24.9	0.0	33.2	12.9	28.7	19.4
Progression Factor	1.15	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.9	0.9	0.3	34.2	0.1
Delay (s)	30.8	0.9	34.2	13.2	62.9	19.5
Level of Service	C	A	C	B	E	B
Approach Delay (s)	10.2		19.5			60.2
Approach LOS	B		B			E

Intersection Summary				
HCM Average Control Delay	32.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	88.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR	ø3
Lane Configurations							
Volume (vph)	1260	90	80	500	10	720	
Turn Type		Perm	Prot			custom	
Protected Phases	2 3		1	2	4	1 4	3
Permitted Phases		2 3				4	
Detector Phases	2 3	2 3	1	2	4	1 4	
Minimum Initial (s)			4.0	4.0	4.0		4.0
Minimum Split (s)			8.0	20.0	20.0		20.0
Total Split (s)	55.0	55.0	15.0	35.0	20.0	35.0	20.0
Total Split (%)	61.1%	61.1%	16.7%	38.9%	22.2%	38.9%	22%
Yellow Time (s)			3.5	3.5	3.5		3.5
All-Red Time (s)			0.5	0.5	0.5		0.5
Lead/Lag			Lead	Lag	Lag		Lead
Lead-Lag Optimize?			Yes	Yes	Yes		Yes
Recall Mode			None	Min	None		None
Act Effct Green (s)	49.5	49.5	11.0	31.0	16.0	31.0	
Actuated g/C Ratio	0.56	0.56	0.12	0.35	0.18	0.35	
v/c Ratio	0.67	0.11	0.43	0.80	0.07	0.95	
Control Delay	5.2	0.2	43.9	37.7	31.5	33.7	
Queue Delay	1.0	0.0	0.0	0.0	0.0	1.6	
Total Delay	6.2	0.2	43.9	37.7	31.5	35.3	
LOS	A	A	D	D	C	D	
Approach Delay	5.8			38.6	35.2		
Approach LOS	A			D	D		

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 88.5		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.03		
Intersection Signal Delay: 21.1	Intersection LOS: C	
Intersection Capacity Utilization 82.8%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 20: Mission Rd & I-15 SB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	0		0	285		0	0		0	0		200
Storage Lanes	0		1	1		0	0		0	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)		50	50	50	50					50	50	50
Trailing Detector (ft)		0	0	0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.976	
Satd. Flow (prot)	0	3539	1417	1583	1863	0	0	0	0	0	1818	1417
Flt Permitted				0.950							0.976	
Satd. Flow (perm)	0	3539	1417	1583	1863	0	0	0	0	0	1818	1417
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95									468
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		434			744			972			897	
Travel Time (s)		9.9			16.9			22.1			20.4	
Volume (vph)	0	1260	90	80	500	0	0	0	0	10	10	720
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1326	95	84	526	0	0	0	0	11	11	758
Lane Group Flow (vph)	0	1326	95	84	526	0	0	0	0	0	22	758
v/c Ratio		0.67	0.11	0.43	0.80						0.07	0.95
Control Delay		5.2	0.2	43.9	37.7						31.5	33.7
Queue Delay		1.0	0.0	0.0	0.0						0.0	1.6
Total Delay		6.2	0.2	43.9	37.7						31.5	35.3
Queue Length 50th (ft)		56	0	45	270						11	188
Queue Length 95th (ft)		m67	m0	91	#440						31	#461
Internal Link Dist (ft)		354			664			892			817	
Turn Bay Length (ft)				285								200
Base Capacity (vph)		2041	858	197	654						329	801
Starvation Cap Reductn		424	0	0	0						0	0
Spillback Cap Reductn		0	0	0	0						0	11
Storage Cap Reductn		0	0	0	0						0	0
Reduced v/c Ratio		0.82	0.11	0.43	0.80						0.07	0.96

Intersection Summary	
Area Type:	Other

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1700	1900	1700	1900	1700
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (prot)		3539	1417	1583	1863						1817	1417
Flt Permitted		1.00	1.00	0.95	1.00						0.98	1.00
Satd. Flow (perm)		3539	1417	1583	1863						1817	1417
Volume (vph)	0	1260	90	80	500	0	0	0	0	10	10	720
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1326	95	84	526	0	0	0	0	11	11	758
RTOR Reduction (vph)	0	0	42	0	0	0	0	0	0	0	0	304
Lane Group Flow (vph)	0	1326	53	84	526	0	0	0	0	0	22	454
Turn Type			Perm	Prot						Split		custom
Protected Phases		2 3		1	2					4	4	1 4
Permitted Phases			2 3									4
Actuated Green, G (s)		49.4	49.4	11.0	31.0						16.0	31.0
Effective Green, g (s)		49.4	49.4	11.0	31.0						16.0	31.0
Actuated g/C Ratio		0.56	0.56	0.12	0.35						0.18	0.35
Clearance Time (s)				4.0	4.0						4.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)		1978	792	197	653						329	497
v/s Ratio Prot		c0.37		0.05	c0.28						0.01	c0.32
v/s Ratio Perm			0.04									
v/c Ratio		0.67	0.07	0.43	0.81						0.07	0.91
Uniform Delay, d1		13.8	8.9	35.8	26.0						30.0	27.4
Progression Factor		0.31	0.03	1.00	1.00						1.00	1.00
Incremental Delay, d2		0.4	0.0	1.5	7.2						0.1	21.2
Delay (s)		4.7	0.3	37.3	33.1						30.1	48.6
Level of Service		A	A	D	C						C	D
Approach Delay (s)		4.4			33.7			0.0			48.1	
Approach LOS		A			C			A			D	

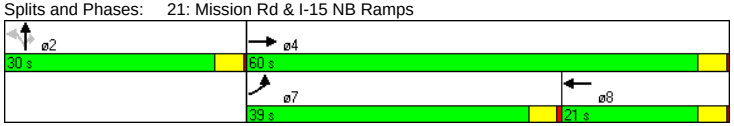
Intersection Summary					
HCM Average Control Delay	22.9	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.80				
Actuated Cycle Length (s)	88.4	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	82.8%	ICU Level of Service	E		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Volume (vph)	950	290	230	10	170
Turn Type	Prot				Perm
Protected Phases	7	4	8	2	
Permitted Phases					2
Detector Phases	7	4	8	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	39.0	60.0	21.0	30.0	30.0
Total Split (%)	43.3%	66.7%	23.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	28.9	47.2	14.0	19.9	19.9
Actuated g/C Ratio	0.38	0.62	0.18	0.26	0.26
v/c Ratio	0.85	0.26	0.74	0.81	0.35
Control Delay	31.1	7.7	45.8	42.6	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	7.7	45.8	42.6	6.4
LOS	C	A	D	D	A
Approach Delay		25.6	45.8	31.0	
Approach LOS		C	D	C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 75.8			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 29.4		Intersection LOS: C	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 21: Mission Rd & I-15 NB Ramps



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	300		0	0		0	0		200	0		0
Storage Lanes	2		0	0		0	0		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.994				0.850			
Flt Protected	0.950							0.954				
Satd. Flow (prot)	3072	1863	0	0	1852	0	0	1777	1417	0	0	0
Flt Permitted	0.950							0.954				
Satd. Flow (perm)	3072	1863	0	0	1852	0	0	1777	1417	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				179			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		744			1271			1082			1005	
Travel Time (s)		16.9			28.9			24.6			22.8	
Volume (vph)	950	290	0	0	230	10	350	10	170	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1000	305	0	0	242	11	368	11	179	0	0	0
Lane Group Flow (vph)	1000	305	0	0	253	0	0	379	179	0	0	0
v/c Ratio	0.85	0.26			0.74			0.81	0.35			
Control Delay	31.1	7.7			45.8			42.6	6.4			
Queue Delay	0.0	0.0			0.0			0.0	0.0			
Total Delay	31.1	7.7			45.8			42.6	6.4			
Queue Length 50th (ft)	248	66			131			193	0			
Queue Length 95th (ft)	#344	112			#239			#308	47			
Internal Link Dist (ft)		664			1191			1002			925	
Turn Bay Length (ft)	300								200			
Base Capacity (vph)	1341	1243			418			581	584			
Starvation Cap Reductn	0	0			0			0	0			
Spillback Cap Reductn	0	0			0			0	0			
Storage Cap Reductn	0	0			0			0	0			
Reduced v/c Ratio	0.75	0.25			0.61			0.65	0.31			

Intersection Summary	
Area Type:	Other
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

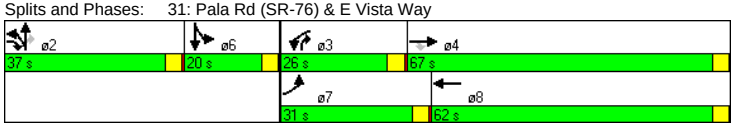
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	0.97	1.00			1.00			1.00	1.00			
Frt	1.00	1.00			0.99			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	3072	1863			1852			1776	1417			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	3072	1863			1852			1776	1417			
Volume (vph)	950	290	0	0	230	10	350	10	170	0	0	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1000	305	0	0	242	11	368	11	179	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	132	0	0	0
Lane Group Flow (vph)	1000	305	0	0	251	0	0	379	47	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	28.9	47.2			14.3			19.9	19.9			
Effective Green, g (s)	28.9	47.2			14.3			19.9	19.9			
Actuated g/C Ratio	0.38	0.63			0.19			0.26	0.26			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	1182	1171			353			471	375			
v/s Ratio Prot	c0.33	0.16			c0.14							
v/s Ratio Perm								0.21	0.03			
v/c Ratio	0.85	0.26			0.71			0.80	0.13			
Uniform Delay, d1	21.1	6.2			28.5			25.8	21.0			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	5.7	0.1			6.6			9.6	0.2			
Delay (s)	26.8	6.3			35.1			35.4	21.1			
Level of Service	C	A			D			D	C			
Approach Delay (s)		22.0			35.1			30.8			0.0	
Approach LOS		C			D			C			A	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations									
Volume (vph)	100	2050	400	400	1200	300	70	370	80
Turn Type	Prot		pm+ov	Prot		Split		pm+ov	
Protected Phases	7	4	2	3	8	2	2	3	6
Permitted Phases			4					2	
Detector Phases	7	4	2	3	8	2	2	3	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	31.0	67.0	37.0	26.0	62.0	37.0	37.0	26.0	20.0
Total Split (%)	20.7%	44.7%	24.7%	17.3%	41.3%	24.7%	24.7%	17.3%	13.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag		Lead	Lag			Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	
Recall Mode	None	None	Max	None	None	Max	Max	None	Max
Act Effct Green (s)	15.3	63.0	100.0	21.9	69.7	33.0	33.0	54.9	16.0
Actuated g/C Ratio	0.10	0.42	0.67	0.15	0.46	0.22	0.22	0.37	0.11
v/c Ratio	0.65	1.01	0.42	0.94	0.55	0.91	0.18	0.60	0.40
Control Delay	82.7	64.8	7.5	92.0	30.4	86.5	49.0	15.0	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.7	64.8	7.5	92.0	30.4	86.5	49.0	15.0	37.9
LOS	F	E	A	F	C	F	D	B	D
Approach Delay		56.5			45.5		47.2		37.9
Approach LOS		E			D		D		D

Intersection Summary			
Cycle Length: 150			
Actuated Cycle Length: 149.9			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 51.0		Intersection LOS: D	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 31: Pala Rd (SR-76) & E Vista Way



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	300		150	450		0	0		200	0		0
Storage Lanes	1		1	2		0	1		1	0		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	0.91	1.00	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.996				0.850		0.934	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1583	5085	1417	3072	5065	0	1583	1863	1417	0	3296	0
Flt Permitted	0.950			0.950			0.950				0.997	
Satd. Flow (perm)	1583	5085	1417	3072	5065	0	1583	1863	1417	0	3296	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179		3				205		74	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		710			526			797			552	
Travel Time (s)		16.1			12.0			18.1			12.5	
Volume (vph)	100	2050	400	400	1200	30	300	70	370	10	80	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	2158	421	421	1263	32	316	74	389	11	84	74
Lane Group Flow (vph)	105	2158	421	421	1295	0	316	74	389	0	169	0
v/c Ratio	0.65	1.01	0.42	0.94	0.55		0.91	0.18	0.60		0.40	
Control Delay	82.7	64.8	7.5	92.0	30.4		86.5	49.0	15.0		37.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	82.7	64.8	7.5	92.0	30.4		86.5	49.0	15.0		37.9	
Queue Length 50th (ft)	101	~787	95	213	327		304	59	103		45	
Queue Length 95th (ft)	161	#900	158	#315	404		#485	107	186		85	
Internal Link Dist (ft)		630			446			717			472	
Turn Bay Length (ft)	300		150	450					200			
Base Capacity (vph)	264	2137	1005	451	2355		348	410	649		418	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.40	1.01	0.42	0.93	0.55		0.91	0.18	0.60		0.40	

Intersection Summary

Area Type: Other

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91		1.00	1.00	1.00		0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85		0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1583	5085	1417	3072	5066		1583	1863	1417		3296	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1583	5085	1417	3072	5066		1583	1863	1417		3296	
Volume (vph)	100	2050	400	400	1200	30	300	70	370	10	80	70
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	2158	421	421	1263	32	316	74	389	11	84	74
RTOR Reduction (vph)	0	0	64	0	2	0	0	0	130	0	66	0
Lane Group Flow (vph)	105	2158	357	421	1293	0	316	74	259	0	103	0
Turn Type	Prot		pm+ov	Prot			Split		pm+ov	Split		
Protected Phases	7	4	2	3	8		2	2	3	6	6	
Permitted Phases			4						2			
Actuated Green, G (s)	15.3	63.1	96.1	21.9	69.7		33.0	33.0	54.9		16.0	
Effective Green, g (s)	15.3	63.1	96.1	21.9	69.7		33.0	33.0	54.9		16.0	
Actuated g/C Ratio	0.10	0.42	0.64	0.15	0.46		0.22	0.22	0.37		0.11	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	161	2139	946	449	2354		348	410	519		352	
v/s Ratio Prot	0.07	c0.42	0.08	c0.14	0.26		c0.20	0.04	0.07		c0.03	
v/s Ratio Perm			0.17						0.11			
v/c Ratio	0.65	1.01	0.38	0.94	0.55		0.91	0.18	0.50		0.29	
Uniform Delay, d1	64.8	43.5	12.8	63.4	28.9		57.0	47.5	36.9		61.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	9.1	21.6	0.3	27.2	0.3		29.7	1.0	0.8		2.1	
Delay (s)	73.9	65.1	13.0	90.6	29.1		86.7	48.5	37.6		63.9	
Level of Service	E	E	B	F	C		F	D	D		E	
Approach Delay (s)		57.3			44.2			58.6			63.9	
Approach LOS		E			D			E			E	

Intersection Summary				
HCM Average Control Delay	53.5	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.89			
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	89.0%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

PM Existing + Cumulative + Project
32: Pala Rd (SR-76) & North River Rd

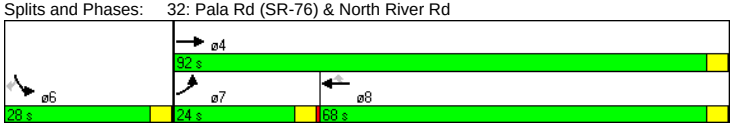
With Mitigation
Timings

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	200	2350	1500	150	250	200
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	24.0	92.0	68.0	68.0	28.0	28.0
Total Split (%)	20.0%	76.7%	56.7%	56.7%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Max	Max
Act Effct Green (s)	18.4	85.8	63.5	63.5	24.0	24.0
Actuated g/C Ratio	0.16	0.73	0.54	0.54	0.20	0.20
v/c Ratio	0.85	0.96	0.83	0.19	0.81	0.46
Control Delay	78.7	25.7	27.8	4.0	66.0	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	25.7	27.8	4.0	66.0	9.0
LOS	E	C	C	A	E	A
Approach Delay		29.9	25.6		40.6	
Approach LOS		C	C		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 29.4 — Intersection LOS: C
Intersection Capacity Utilization 87.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 32: Pala Rd (SR-76) & North River Rd



PM Existing + Cumulative + Project
32: Pala Rd (SR-76) & North River Rd

With Mitigation
Queues

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	150			0	50	0
Storage Lanes	1			1	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				134		211
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		1356	1400		1286	
Travel Time (s)		30.8	31.8		29.2	
Volume (vph)	200	2350	1500	150	250	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	2474	1579	158	263	211
Lane Group Flow (vph)	211	2474	1579	158	263	211
v/c Ratio	0.85	0.96	0.83	0.19	0.81	0.46
Control Delay	78.7	25.7	27.8	4.0	66.0	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	25.7	27.8	4.0	66.0	9.0
Queue Length 50th (ft)	159	782	521	8	197	0
Queue Length 95th (ft)	#284	#1026	627	41	#338	66
Internal Link Dist (ft)		1276	1320		1206	
Turn Bay Length (ft)	150				50	
Base Capacity (vph)	265	2595	1916	829	323	457
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.95	0.82	0.19	0.81	0.46

Intersection Summary

Area Type: Other
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

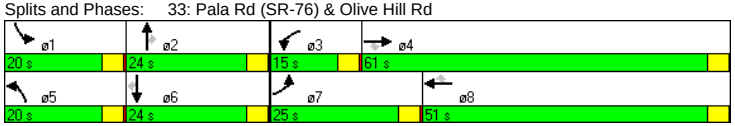
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1583	3539	3539	1417	1583	1417
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1583	3539	3539	1417	1583	1417
Volume (vph)	200	2350	1500	150	250	200
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	2474	1579	158	263	211
RTOR Reduction (vph)	0	0	0	62	0	168
Lane Group Flow (vph)	211	2474	1579	96	263	43
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	18.4	85.8	63.4	63.4	24.0	24.0
Effective Green, g (s)	18.4	85.8	63.4	63.4	24.0	24.0
Actuated g/C Ratio	0.16	0.73	0.54	0.54	0.20	0.20
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	247	2578	1905	763	323	289
v/s Ratio Prot	0.13	c0.70	0.45		c0.17	
v/s Ratio Perm				0.07		0.03
v/c Ratio	0.85	0.96	0.83	0.13	0.81	0.15
Uniform Delay, d1	48.4	14.4	22.7	13.5	44.8	38.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.8	9.9	3.1	0.1	19.8	1.1
Delay (s)	72.2	24.3	25.8	13.5	64.5	39.6
Level of Service	E	C	C	B	E	D
Approach Delay (s)		28.1	24.7		53.4	
Approach LOS		C	C		D	

Intersection Summary				
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	117.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	2250	200	250	1550	150	100	200	350	150	200	80
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	61.0	61.0	15.0	51.0	51.0	20.0	24.0	24.0	20.0	24.0	24.0
Total Split (%)	20.8%	50.8%	50.8%	12.5%	42.5%	42.5%	16.7%	20.0%	20.0%	16.7%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	16.3	57.0	57.0	11.0	51.7	51.7	16.0	20.0	20.0	16.0	20.0	20.0
Actuated g/C Ratio	0.14	0.48	0.48	0.09	0.43	0.43	0.13	0.17	0.17	0.13	0.17	0.17
v/c Ratio	0.74	0.98	0.28	0.93	0.74	0.23	0.50	0.68	0.92	0.39	0.68	0.27
Control Delay	69.3	45.5	6.7	93.2	31.9	8.2	57.2	59.0	52.1	50.6	59.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	45.5	6.7	93.2	31.9	8.2	57.2	59.0	52.1	50.6	59.0	11.5
LOS	E	D	A	F	C	A	E	E	D	D	E	B
Approach Delay		43.9			37.9			55.0			47.3	
Approach LOS		D			D			E			D	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Natural Cycle: 100		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.98		
Intersection Signal Delay: 43.4	Intersection LOS: D	
Intersection Capacity Utilization 82.5%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 33: Pala Rd (SR-76) & Olive Hill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Storage Length (ft)	250		0	250		200	0		150	150		0
Storage Lanes	1		1	2		1	1		1	2		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			153			117			197			84
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		585			663			961			1186	
Travel Time (s)		13.3			15.1			21.8			27.0	
Volume (vph)	150	2250	200	250	1550	150	100	200	350	150	200	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	2368	211	263	1632	158	105	211	368	158	211	84
Lane Group Flow (vph)	158	2368	211	263	1632	158	105	211	368	158	211	84
v/c Ratio	0.74	0.98	0.28	0.93	0.74	0.23	0.50	0.68	0.92	0.39	0.68	0.27
Control Delay	69.3	45.5	6.7	93.2	31.9	8.2	57.2	59.0	52.1	50.6	59.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	45.5	6.7	93.2	31.9	8.2	57.2	59.0	52.1	50.6	59.0	11.5
Queue Length 50th (ft)	119	642	24	106	383	18	77	155	140	58	155	0
Queue Length 95th (ft)	186	#777	70	#188	473	66	136	241	#328	92	241	45
Internal Link Dist (ft)		505			583			881			1106	
Turn Bay Length (ft)	250			250		200			150	150		
Base Capacity (vph)	267	2415	753	282	2193	677	211	311	400	410	311	306
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.98	0.28	0.93	0.74	0.23	0.50	0.68	0.92	0.39	0.68	0.27

Intersection Summary

Area Type: Other

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1700	1900	1700	1700	1900	1700	1700	1900	1700	1700	1900	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1583	5085	1417	3072	5085	1417	1583	1863	1417	3072	1863	1417
Volume (vph)	150	2250	200	250	1550	150	100	200	350	150	200	80
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	2368	211	263	1632	158	105	211	368	158	211	84
RTOR Reduction (vph)	0	0	80	0	0	67	0	0	164	0	0	70
Lane Group Flow (vph)	158	2368	131	263	1632	91	105	211	204	158	211	14
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	16.3	57.0	57.0	11.0	51.7	51.7	16.0	20.0	20.0	16.0	20.0	20.0
Effective Green, g (s)	16.3	57.0	57.0	11.0	51.7	51.7	16.0	20.0	20.0	16.0	20.0	20.0
Actuated g/C Ratio	0.14	0.48	0.48	0.09	0.43	0.43	0.13	0.17	0.17	0.13	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	215	2415	673	282	2191	610	211	311	236	410	311	236
v/s Ratio Prot	c0.10	c0.47		c0.09	0.32		c0.07	0.11		0.05	0.11	
v/s Ratio Perm			0.09			0.06			c0.14			0.01
v/c Ratio	0.73	0.98	0.19	0.93	0.74	0.15	0.50	0.68	0.86	0.39	0.68	0.06
Uniform Delay, d1	49.8	31.0	18.2	54.1	28.6	20.8	48.3	47.0	48.7	47.5	47.0	42.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.2	14.0	0.1	35.9	1.4	0.1	8.2	11.3	31.8	2.7	11.3	0.5
Delay (s)	62.0	44.9	18.4	90.0	30.0	20.9	56.4	58.3	80.5	50.2	58.3	42.6
Level of Service	E	D	B	F	C	C	E	E	F	D	E	D
Approach Delay (s)		43.9			37.0			70.0			52.6	
Approach LOS		D			D			E			D	

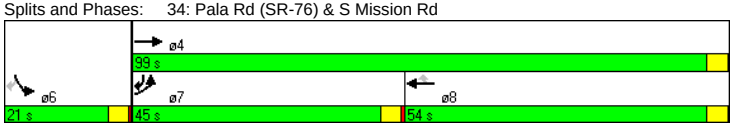
Intersection Summary				
HCM Average Control Delay	45.2	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.85			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	82.5%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	1000	1800	1400	240	300	550
Turn Type	Prot			Perm		pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phases	7	4	8	8	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	45.0	99.0	54.0	54.0	21.0	45.0
Total Split (%)	37.5%	82.5%	45.0%	45.0%	17.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	Max	None
Act Effct Green (s)	41.0	95.0	50.0	50.0	17.0	62.0
Actuated g/C Ratio	0.34	0.79	0.42	0.42	0.14	0.52
v/c Ratio	1.00	0.47	1.00	0.35	0.73	0.45
Control Delay	68.2	4.6	58.6	6.0	59.9	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	4.6	58.6	6.0	59.9	19.7
LOS	E	A	E	A	E	B
Approach Delay		27.3	50.9		33.9	
Approach LOS		C	D		C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 35.7 Intersection LOS: D
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15

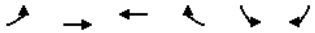
Splits and Phases: 34: Pala Rd (SR-76) & S Mission Rd



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Storage Length (ft)	500			300	500	0
Storage Lanes	2			1	2	2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3072	5085	3539	1417	3072	2493
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3072	5085	3539	1417	3072	2493
Right Turn on Red				Yes		No
Satd. Flow (RTOR)				218		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		565	451		1333	
Travel Time (s)		12.8	10.3		30.3	
Volume (vph)	1000	1800	1400	240	300	550
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1053	1895	1474	253	316	579
Lane Group Flow (vph)	1053	1895	1474	253	316	579
v/c Ratio	1.00	0.47	1.00	0.35	0.73	0.45
Control Delay	68.2	4.6	58.6	6.0	59.9	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	4.6	58.6	6.0	59.9	19.7
Queue Length 50th (ft)	~421	146	591	16	122	154
Queue Length 95th (ft)	#570	167	#764	70	172	206
Internal Link Dist (ft)		485	371		1253	
Turn Bay Length (ft)	500			300	500	
Base Capacity (vph)	1050	4026	1475	718	435	1288
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.47	1.00	0.35	0.73	0.45

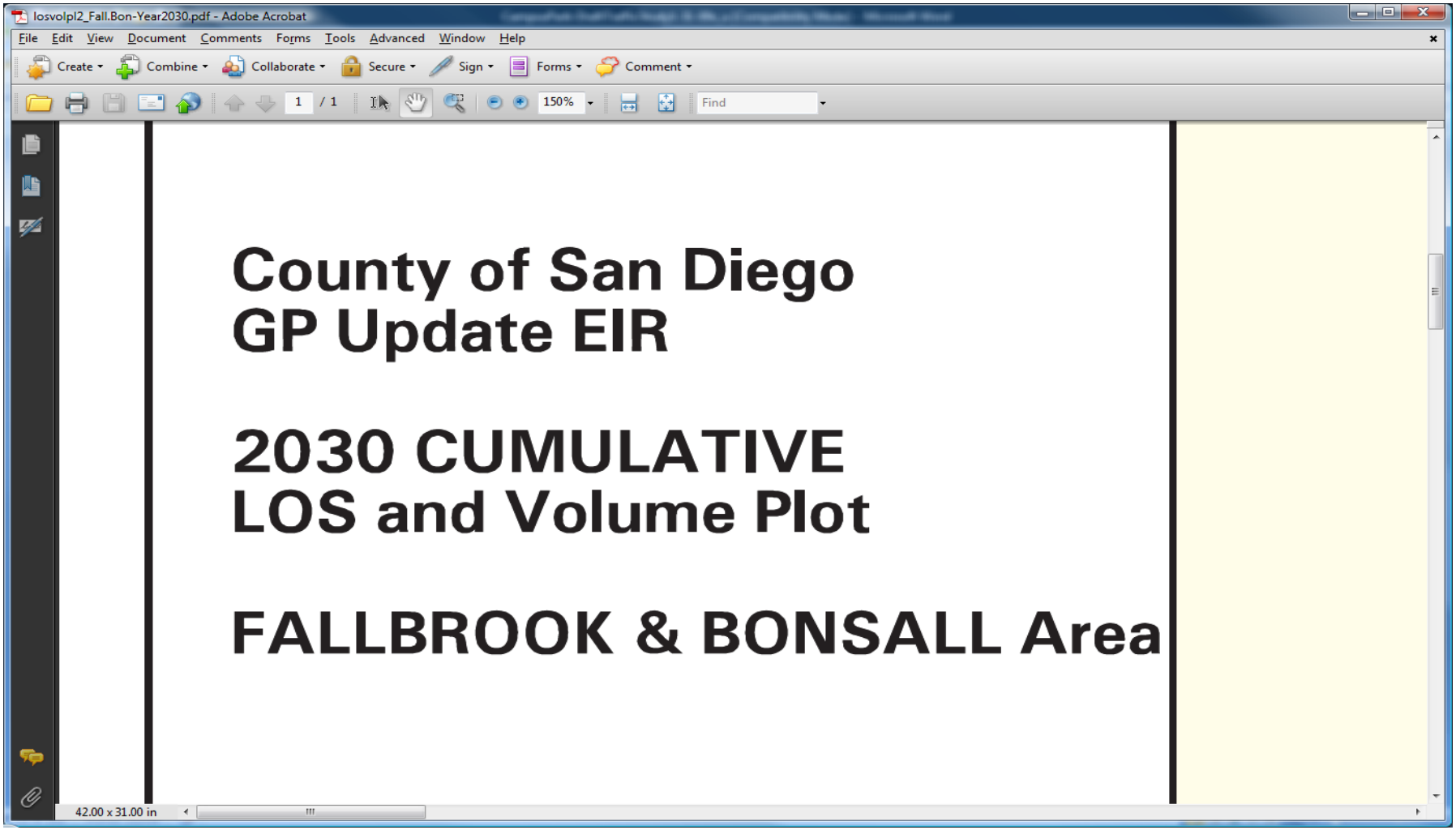
Intersection Summary

Area Type: Other
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1700	1900	1900	1700	1700	1700
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3072	5085	3539	1417	3072	2493
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3072	5085	3539	1417	3072	2493
Volume (vph)	1000	1800	1400	240	300	550
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1053	1895	1474	253	316	579
RTOR Reduction (vph)	0	0	0	127	0	0
Lane Group Flow (vph)	1053	1895	1474	126	316	579
Turn Type	Prot			Perm		pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Actuated Green, G (s)	41.0	95.0	50.0	50.0	17.0	58.0
Effective Green, g (s)	41.0	95.0	50.0	50.0	17.0	58.0
Actuated g/C Ratio	0.34	0.79	0.42	0.42	0.14	0.48
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1050	4026	1475	590	435	1288
v/s Ratio Prot	c0.34	0.37	c0.42		c0.10	0.15
v/s Ratio Perm				0.09		0.08
v/c Ratio	1.00	0.47	1.00	0.21	0.73	0.45
Uniform Delay, d1	39.5	4.2	35.0	22.4	49.3	20.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	28.5	0.1	23.1	0.2	10.2	0.3
Delay (s)	68.0	4.2	58.1	22.6	59.4	20.7
Level of Service	E	A	E	C	E	C
Approach Delay (s)		27.0	52.9		34.4	
Approach LOS		C	D		C	

Intersection Summary			
HCM Average Control Delay	36.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			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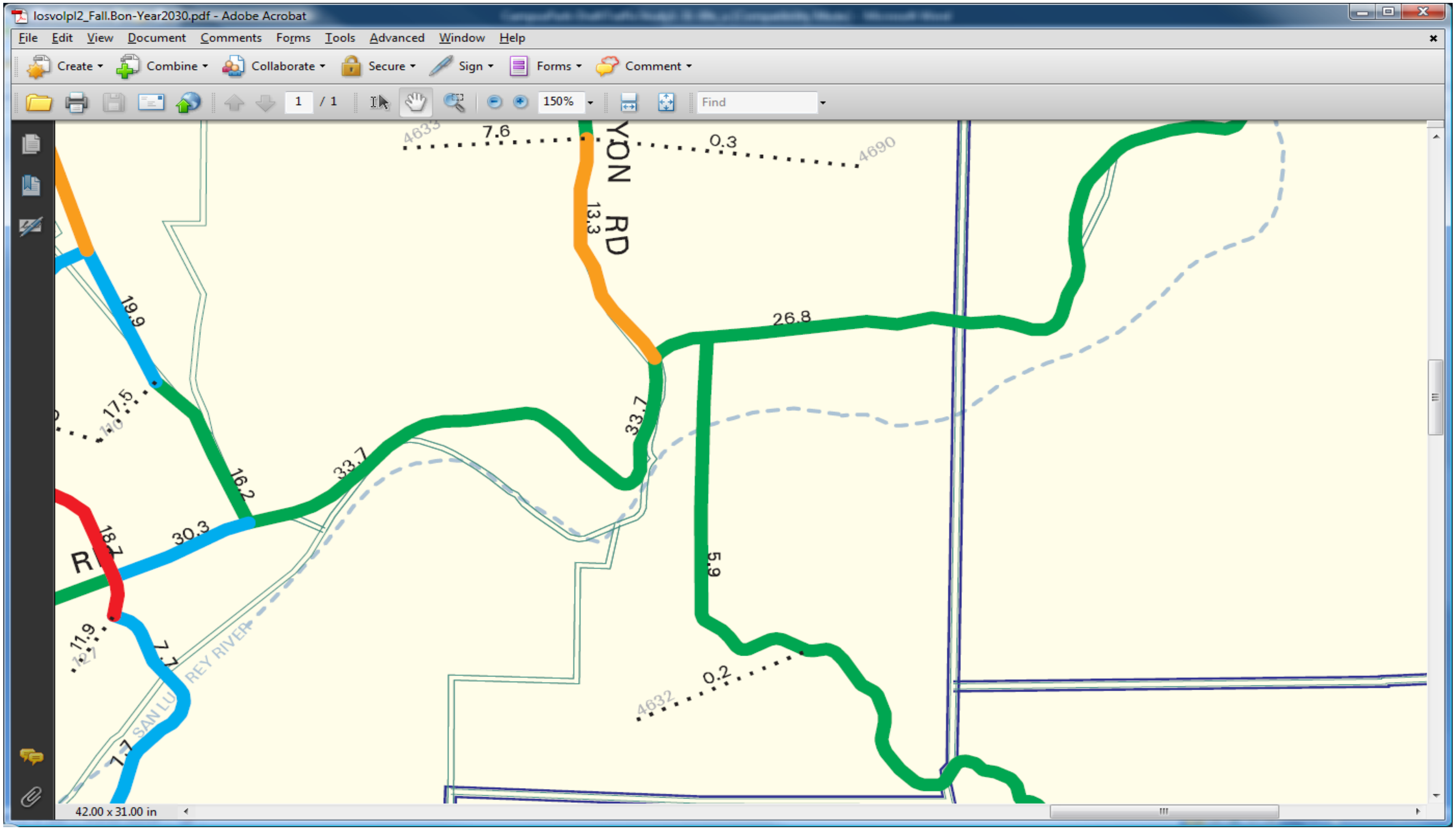
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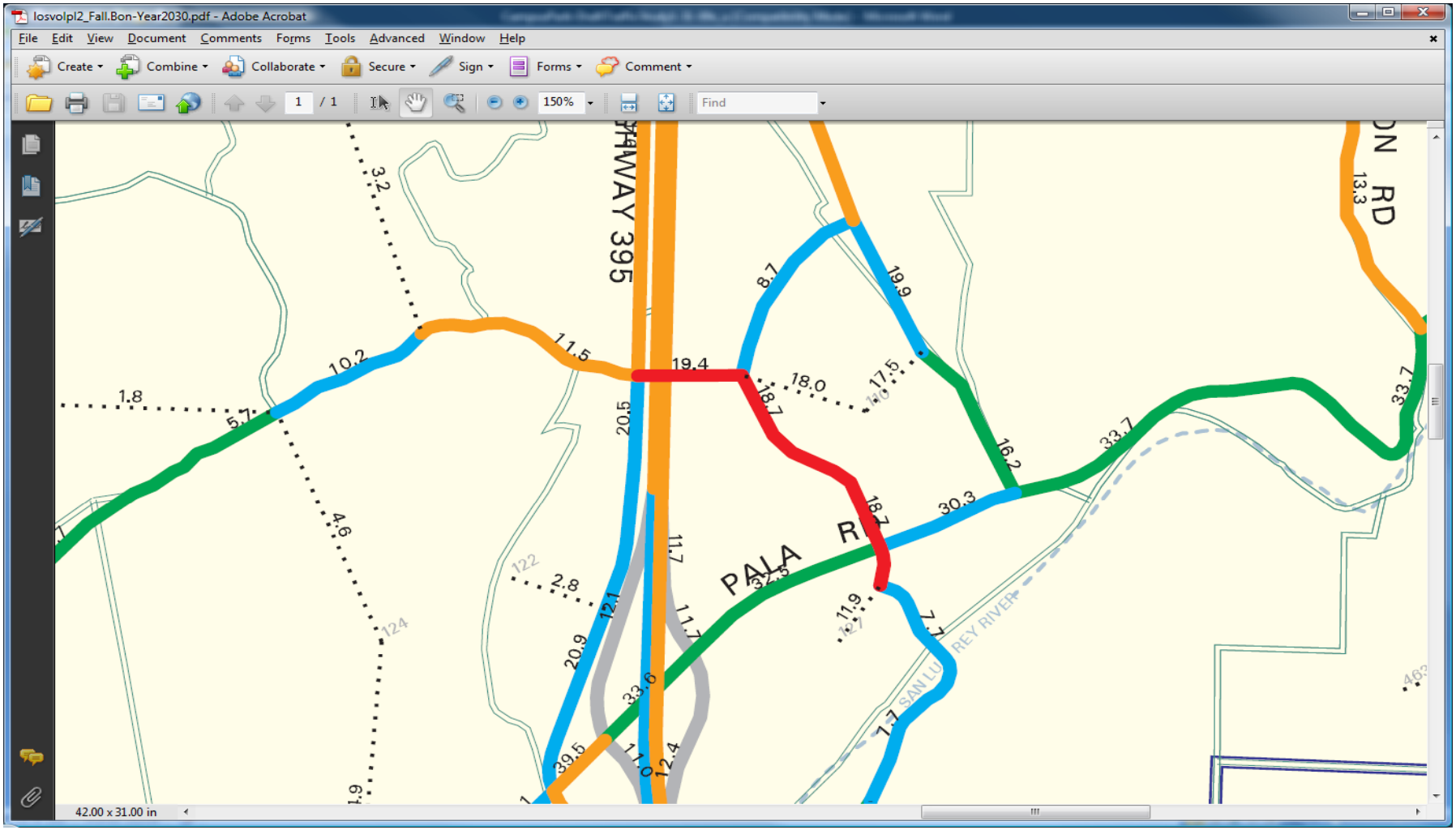
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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST ____ CO ____ RTE ____ PM ____

CALC _____ DATE _____

CHK _____ DATE _____

Major St: SR-76

Minor St: PANKEY RD

Critical Approach Speed _____ mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☑

or

In built up area of isolated community of < 10,000 population..... ☑ **RURAL (R)**

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓

CONDITION A - Minimum Vehicular Volume

Satisfied ✓ Not Satisfied _____

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	8,000	5,600	2,400	1,680
(2) or More 31400	(1) 9350	9,600	6,720 ✓	2,400	1,680 ✓
2 or More	2 or More	9,600	6,720	3,200	2,240
1	2 or More	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ✓ Not Satisfied _____

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	12,000	8,400	1,200	850
(2) or More 31400	(1) 9350	14,400	10,080 ✓	1,200	850 ✓
2 or More	2 or More	14,400	10,080	1,600	1,120
1	2 or More	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied ✓ Not Satisfied _____

No one condition satisfied, but following conditions fulfilled 80% or more..... A _____ B _____

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

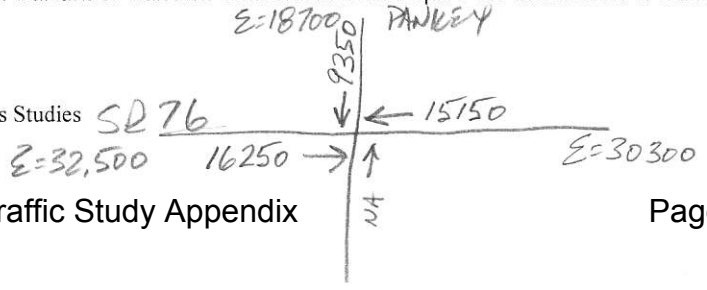


Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST CO RTE PM

CALC _____ DATE _____

CHK _____ DATE _____

Major St: SR-76

Minor St: COUSER CANYON RD

Critical Approach Speed _____ mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐
In built up area of isolated community of < 10,000 population..... ☑ or ☑ **RURAL (R)**
☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓	Minimum Requirements EADT	
CONDITION A - Minimum Vehicular Volume Satisfied ✓ Not Satisfied _____	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach	Urban / Rural	Urban / Rural
Major Street 30250 / Minor Street 2950		
(1) / (1)	8,000 / 5,600 ✓	2,400 / 1,680 ✓
2 or More / 1	9,600 / 6,720	2,400 / 1,680
2 or More / 2 or More	9,600 / 6,720	3,200 / 2,240
1 / 2 or More	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffic Satisfied ✓ Not Satisfied _____	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach	Urban / Rural	Urban / Rural
Major Street 30250 / Minor Street 2950		
(1) / (1)	12,000 / 8,400 ✓	1,200 / 850 ✓
2 or More / 1	14,400 / 10,080	1,200 / 850
2 or More / 2 or More	14,400 / 10,080	1,600 / 1,120
1 / 2 or More	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A + B Satisfied ✓ Not Satisfied _____	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or more..... A _____ B _____		

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

SR76 E=33,700 ← 13400
16850 → ↑ 2950 E=26,800
E=5900

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: SR-76

Minor St: RICE CANYON RD

Critical Approach Speed ____ mph

Critical Approach Speed ____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐

or

In built up area of isolated community of < 10,000 population..... ☑ **RURAL (R)**

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓

CONDITION A - Minimum Vehicular Volume

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
(1) 30,250	(1) 6650
2 or More	1
2 or More	2 or More
1	2 or More

Minimum Requirements EADT			
Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
8,000	5,600 ✓	2,400	1,680 ✓
9,600	6,720	2,400	1,680
9,600	6,720	3,200	2,240
8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
(1) 30250	(1) 6650
2 or More	1
2 or More	2 or More
1	2 or More

Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
12,000	8,400 ✓	1,200	850 ✓
14,400	10,080	1,200	850
14,400	10,080	1,600	1,120
12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied ✓ Not Satisfied ____

No one condition satisfied, but following conditions fulfilled 80% or more..... ____ (A) ____ (B)

2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

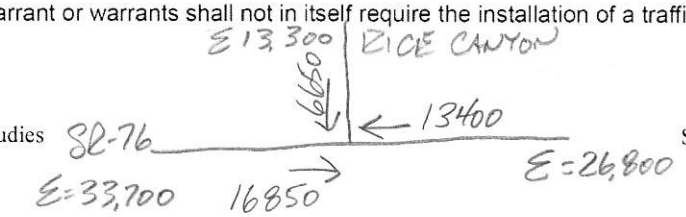


Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: OLD HWY 395

Minor St: PALA MESA DR

Critical Approach Speed ____ mph

Critical Approach Speed ____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐

or

In built up area of isolated community of < 10,000 population..... ☑ **RURAL (R)**

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓

CONDITION A - Minimum Vehicular Volume

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
1	1
2 or More	1
(2) or More 19950	(2) or More 5750
1	2 or More

Minimum Requirements EADT			
Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
8,000	5,600	2,400	1,680
9,600	6,720	2,400	1,680
9,600	6,720 ✓	3,200	2,240 ✓
8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
1	1
2 or More	1
(2) or More 19950	(2) or More 5750
1	2 or More

Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
12,000	8,400	1,200	850
14,400	10,080	1,200	850
14,400	10,080 ✓	1,600	1,120 ✓
12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied ✓ Not Satisfied ____

No one condition satisfied, but following conditions fulfilled 80% or more..... ____ (A) ____ (B)

2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

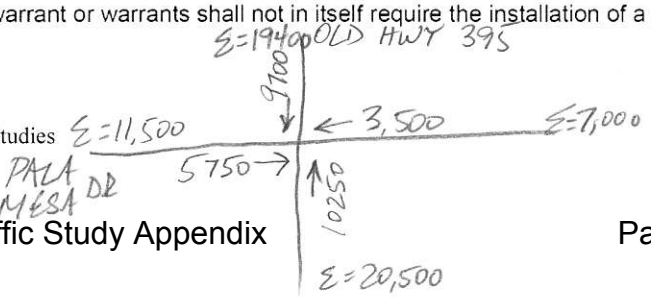


Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST ____ CO ____ RTE ____ PM ____

CALC ____ DATE ____

CHK ____ DATE ____

Major St: OLD HWY 395

Minor St: STEWART CANYON

Critical Approach Speed ____ mph

Critical Approach Speed ____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☐

or

In built up area of isolated community of < 10,000 population..... ☑ **RURAL (R)**

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓

CONDITION A - Minimum Vehicular Volume

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
1.....	1.....
2 or More.....	1.....
(2) or More..... 20450	(2) or More..... 4000 .....
1.....	2 or More.....

Minimum Requirements EADT			
Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
8,000	5,600	2,400	1,680
9,600	6,720	2,400	1,680
9,600	6,720 ✓	3,200	2,240 ✓
8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ✓ Not Satisfied ____

Number of lanes for moving traffic on each approach

Major Street	Minor Street
1.....	1.....
2 or More.....	1.....
(2) or More..... 20450	(2) or More..... 4000 .....
1.....	2 or More.....

Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Urban	Rural	Urban	Rural
12,000	8,400	1,200	850
14,400	10,080	1,200	850
14,400	10,080 ✓	1,600	1,120 ✓
12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied ✓ Not Satisfied ____

No one condition satisfied, but following conditions fulfilled 80% or more..... ____ (A) ____ (B)

2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

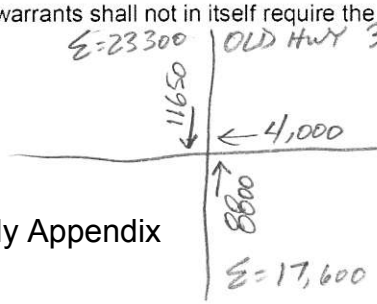


Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST ____ CO ____ RTE ____ PM ____

CALC _____ DATE _____

CHK _____ DATE _____

Major St: OLD HWY 395

Minor St: RECHE RD

Critical Approach Speed _____ mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☑

or

In built up area of isolated community of < 10,000 population..... ☐

RURAL (R)

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓	Minimum Requirements EADT	
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Satisfied ✓ Not Satisfied _____		
Number of lanes for moving traffic on each approach	Urban / Rural	Urban / Rural
Major Street: 1	8,000 / 5,600	2,400 / 1,680
Major Street: (2) or More.... 21600	9,600 / 6,720 ✓	2,400 / 1,680 ✓
Major Street: 2 or More	9,600 / 6,720	3,200 / 2,240
Major Street: 1	8,000 / 5,600	3,200 / 2,240
Minor Street: 1		
Minor Street: (1) 5300		
Minor Street: 2 or More		
Minor Street: 2 or More		
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Satisfied ✓ Not Satisfied _____		
Number of lanes for moving traffic on each approach	Urban / Rural	Urban / Rural
Major Street: 1	12,000 / 8,400	1,200 / 850
Major Street: (2) or More.... 21600	14,400 / 10,080 ✓	1,200 / 850 ✓
Major Street: 2 or More	14,400 / 10,080	1,600 / 1,120
Major Street: 1	12,000 / 8,400	1,600 / 1,120
Minor Street: 1		
Minor Street: (1) 5300		
Minor Street: 2 or More		
Minor Street: 2 or More		
Combination of CONDITIONS A + B	2 CONDITIONS 80%	2 CONDITIONS 80%
Satisfied ✓ Not Satisfied _____		
No one condition satisfied, but following conditions fulfilled 80% or more..... A _____ B _____		

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

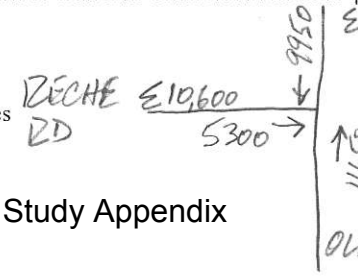


Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

COUNT DATE E+C+P

DIST CO RTE PM

CALC _____ DATE _____

CHK _____ DATE _____

Major St: RECHE RD

Minor St: LIVE OAK PARK RD

Critical Approach Speed 42 mph

Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)..... ☑
or
In built up area of isolated community of < 10,000 population..... ☐
} **RURAL (R)**

☐ **URBAN (U)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL..... ✓

CONDITION A - Minimum Vehicular Volume

Satisfied _____ Not Satisfied ✓

Minimum Requirements EADT

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
(2) or More 12,950	(1) 1,100	9,600	6,720 ✓	2,400	1,680 ✗
2 or More	2 or More	9,600	6,720	3,200	2,240
1	2 or More	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ✓ Not Satisfied _____

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
(2) or More 12,950	(1) 1,100	14,400	10,080 ✓	1,200	850 ✓
2 or More	2 or More	14,400	10,080	1,600	1,120
1	2 or More	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied _____ Not Satisfied _____

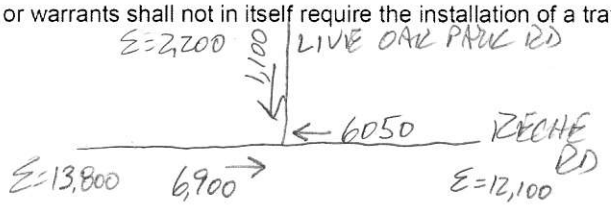
2 CONDITIONS 80%

2 CONDITIONS 80%

No one condition satisfied, but following conditions fulfilled 80% or more..... _____ A _____ B

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Series 10 Adjusted ADTs

Hwycov_id	Uvol	Avol	Nm	Fxnm	Txnm
12033	53013	55008	MISSION	JEFFRIES RANCH	MELROSE
2670	52437	54411	MISSION	CRANBERRY	JEFFRIES RANCH
12731	58060	60245	MISSION	EAST VISTA	CRANBERRY
12735	56662	47108	MISSION	HOLLY	EAST VISTA
12736	56534	47002	MISSION	NORTH RIVER	HOLLY
31079	68364	56818	MISSION	UNKNOWN	NORTH RIVER
7210	68364	56818	MISSION	VIA GRENADA	UNKNOWN
7209	68364	56818	MISSION	VALLEY RANCH	VIA GRENADA
11625	71388	59327	MISSION	OLIVEHILL/CM DEL REY	VALLEY RANCH
11626	71890	60858	MISSION	THOROUGHBRED	OLIVEHILL/CM DEL REY
15943	68239	57772	PALA	THOROUGHBRED	MISSION