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LETTER OF TRANSMITTAL

TO: GARY DAUGHERTY ARCHITECT
197 Woodland Parkway #104-155
San Marcos, CA 92069

ATTN: Mr. Scott Zeida

DATE: May 27, 2015
JOB NO.: 2239-2014-01
SUBJECT: Wakerider Beach Resort
Traffic Study, City of Lake Elsinore
(Updated 5/27/15)

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REMARKS:

Attached please find the Wakerider Beach Resort Traffic Study, City of Lake Elsinore (Updated 5/27/15)

If you have any questions, please call me at 949-474-0809 extension 211 if you have any questions.

BY:
Rogier Goedecke
Vice President, Operations

COPIES TO:

4000 westerly place, suite 280
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http://www.rkengineer.com

WAKERIDER BEACH RESORT
TRAFFIC STUDY (UPDATED 5/27/15)
City of Lake Elsinore, California

Prepared for:

GARY DAUGHERTY ARCHITECT
197 Woodland Parkway #104-155
San Marcos, CA 92069

Prepared by:

RK ENGINEERING GROUP, INC.
4000 Westerly Place, Suite 280
Newport Beach, CA 92660

Robert Kahn, P.E.
Allison Goedecke, M.B.A.

May 27, 2015

RK:dt/RK10619.doc
JN:2239-2014-01

List of Attachments

Exhibits

Tables

Appendices

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May 27, 2015

Mr. Scott Zeida
GARY DAUGHERTY ARCHITECT
197 Woodland Parkway #104-155
San Marcos, CA 92069

Subject: Wakerider Beach Resort Traffic Study (Updated 5/27/15), City of Lake Elsinore

Dear Mr. Zeida:

Introduction

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this Updated Traffic Study for the proposed Wakerider Beach Resort project, located in the City of Lake Elsinore. The previous update (dated 6/20/13) updated the original W*akerider Beach Resort Traffic Study* dated November 2, 2011. The purpose of this updated traffic impact study is to evaluate the proposed project from a traffic circulation standpoint and to determine its impact on the existing and future street network with the additional amenity of a marina dock (which was studied in the 6/20/13 study update). This currently updated study adds an analysis of Opening Year (2017) Plus Project Conditions which was not included in the previous update (6/20/13).

This project will include a Wakerider Beach Park (15-berth dock, ramp, and parking lot) which will be exclusively used by hotel guests and neighborhood residents only (not advertised to the public); therefore, it will not generate any additional traffic. However, as a worst case scenario, this marina has been analyzed assuming additional traffic using ITE trip generation rates.

The project site is located north of Grand Avenue (SR-74), west of Serena Way, and east of an existing mobile home park driveway in the City of Lake Elsinore. The project location is indicated on the Location Map, Exhibit A. The project site had previously been proposed to be developed with approximately 1,785 square feet of single-tenant office space, 2,315 square feet of fast food restaurant with a drive-thru, a 50-room resort hotel, and 7,395 square feet of restaurant space. Exhibit B illustrates the project Site Plan with the addition of the Wakerider Beach Park amenity. Access to and from the main site is proposed via one (1) access driveway onto Grand Avenue. Access to the proposed Wakerider Beach Park would come from a walking path along the beach for resort guests and a pedestrian access from the residential areas on Serena Way. As a worst case scenario, this study assumes vehicle access to Serena Way for vehicles delivering their boats

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to the dock; however, as previously noted, because access is private and only granted to resort guests and neighborhood residents (with no public advertising), no additional vehicles are expected to visit the site because of this amenity that has been provided to compliment the hotel and residential land uses.

For reference, it should be noted that *The Wakerider Beach Resort Traffic Study* (dated November 2, 2011) updated a previous study done by RK, *Grand Avenue (SR-74) and A Street Focused Access Review*, March 2008. The previous project site plan consisted of 2,088 square feet of single-tenant office building and 31 dwelling units of residential condominium/townhouse.

The project access point for the Wakerider Beach Resort will be constructed between the existing mobile home park driveway and Serena Way, which are spaced approximately 400 feet apart. The study will determine if vehicle queuing at any of the three study area intersections will interfere with each other by blocking access. Vehicle access to the Wakerider Beach Park amenity will come from Serena Way; however, it is expected that most visitors will walk to the dock from the hotel or residences via walking pathways.

To prevent interruption of flow along Grand Avenue, a two-way left turn lane on Grand Avenue at the Project Access is recommended for traffic entering and exiting the project site on Grand Avenue.

Additional detailed discussion of the project and its traffic characteristics will be provided in subsequent sections of this report.

Study Area

The study area includes the following intersections:

North-South Street	East-West Street
Existing Mobile Home Park Driveway	Grand Avenue
Project Access	Grand Avenue
Serena Way	Grand Avenue

Existing Conditions

Exhibit C shows the City of Lake Elsinore Circulation Element and Exhibit D shows the Roadway Cross Sections. Exhibit E identifies the existing roadway conditions, number of through traffic lanes, and the intersection controls for the study area roadways.

Existing traffic volumes on roadways throughout the study area are shown on Exhibit F. These volumes are based upon weekday peak hour and daily traffic data collected in August 2014 for RK. The traffic count worksheets are included in Appendix A.

Trip Generation

Trip generation represents the amount of traffic that is produced and attracted by a development. Trip generation rates have been developed by the ITE (Institute of Transportation Engineers) in their Trip Generation Manual. Trip generation rates for the proposed project's land uses (both the original uses and with the additional Wakerider Beach Park amenity) are shown in Table 1. Both peak hour and daily trip generation, for the proposed, project are shown in Table 2.

The proposed original project is projected to generate a total of 2,201 trip-ends per day, with 133 vehicles per hour during the AM peak hour and 159 vehicles per hour during the PM peak hour. Although the Wakerider Beach Park is not projected to generate any additional trips, because it is only an added amenity for hotel guests and residents, as a worst case scenario, ITE trip generation with a 1.5 PCE (Passenger Car Equivalent) factor to account for cars with boat trailers, has been added to the previously assumed trip generation. The 15-berth marina is project to generate a total of 66 PCE vehicles per day, with 3 PCE vehicles in the AM peak hour and 5 PCE vehicles in the PM peak hour.

Trip Distribution

Trip distribution represents the directional orientation of traffic to and from a particular development. Trip distribution is heavily influenced by the geographical location of the site, the location of employment, commercial and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways within the community and existing traffic volumes.

The trip distribution for this analysis has been based upon Existing conditions, based upon those highway facilities that are in place. Detailed routing assumptions for the original project are included on Exhibit G-1. A trip distribution for the additional Wakerider Beach Park is included on Exhibit G-2; however, it is expected that no additional vehicles will be travelling to this private marina dock since it is for hotel guests and neighborhood residents who will already be parked on-site. Pedestrian access will be accommodated by the beach path from the resort and walkway from the residential housing.

Trip Assignment

The assignment of traffic from the site to the adjoining roadway system has been based upon the site's trip generation, trip distributions, and existing arterial highway and local street systems. Based upon the proposed project trip generation and distribution, the traffic volumes attributable to the proposed project (both the original project and the additional Wakerider Beach Park amenity) are presented on Exhibit H.

Existing Plus Project Traffic Volumes

Existing Plus Project traffic conditions include August 2014 existing traffic volumes on surrounding roadways and project traffic. The AM and PM peak hour intersection turning movement volumes and Average Daily Traffic (ADT) are shown on Exhibit I for Existing Plus Project traffic conditions.

Opening Year (2017) Plus Project Traffic Volumes

Opening Year (2017) Plus Project traffic conditions include existing traffic volumes on surrounding roadways increased by a 2% annual growth rate and project traffic. Because Opening Year is planned for 2017, a total of 3 years of growth or 6% has been used on the August 2014 existing traffic counts. The AM and PM peak hour intersection turning movement volumes and Average Daily Traffic (ADT) are shown on Exhibit J for Opening Year (2017) Plus Project traffic conditions.

Level of Service (LOS)

The current technical guide to the evaluation of traffic operations is the *Highway Capacity Manual* (HCM2000). The HCM defines level of service as a qualitative measure that describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

Study area intersections that are stop sign controlled with stop control on the minor street only have been analyzed using the unsignalized intersection methodology of the HCM. For these intersections, the calculation of LOS is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using data collected describing the intersection configuration and traffic volumes at these locations, the LOS has been calculated. The LOS is determined based on the worst individual movement or movements sharing a single lane.

For Existing Plus Project conditions, all study area intersections are projected to operate at an acceptable LOS D or better during peak hours with the exception of the intersection of the Project Access at Grand Avenue which is projected to operate at an unacceptable level of service during peak hours.

Levels of Service for Existing Plus Project conditions are shown on Table 3. With the addition of a two-way left turn median at the intersection of the Project Access at Grand Avenue, it is projected to improve to an acceptable Level of Service D or better during peak hours. Intersection analysis worksheets for Existing Plus Project conditions are included in Appendix B.

For Opening Year Plus Project conditions, the study area intersection of Mobile Park Driveway at Grand Avenue is projected to operate an acceptable LOS D or better during peak hours; however the study area intersections of the Project Access at Grand Avenue and Serena Way at Grand Avenue are not projected to operate at acceptable Levels of Service during peak hours.

Levels of Service for Opening Year (2017) Plus Project conditions are shown on Table 4. The addition of a two-way left turn median on Grand Avenue at the Project Access and a two-way 100-foot striped median on Grand Avenue at Serena Way are projected to improve to the Levels of Service at those intersections to an acceptable Level of Service D or better during peak hours. Intersection analysis worksheets for Opening Year (2017) Plus Project conditions are included in Appendix C.

Synchro/SimTraffic Analysis

A capacity and queuing analysis was performed using Synchro, a deterministic and macroscopic signal analysis software program, and SimTraffic, a microscopic and stochastic simulation program. The analysis was performed for all study area intersections on Grand Avenue, including the proposed project access point. The Synchro/SimTraffic analysis studied the Existing Plus Project conditions and Opening Year (2017) Plus Project conditions.

The Synchro/SimTraffic models are useful in analyzing closely spaced intersections and roadway corridors. Synchro helps to determine operational impacts and potential queuing problems from one intersection to the next. This queuing can adversely affect traffic operations, even though an individual intersection may be operating at an acceptable Level of Service (LOS).

Synchro/SimTraffic Findings

The Synchro/SimTraffic analysis evaluates the operations at each of the three study area intersections and the progression of traffic flow along Grand Avenue adjacent to the proposed site based upon the proposed lane geometry and traffic controls. The analysis assumes turning movements are allowed at the project access with a two-way left-turn median into/out of the site on Grand Avenue.

Existing Plus Project Conditions

For Existing Plus Project conditions, the Synchro analysis indicates that all study area intersections are projected to operate at an acceptable LOS, with minimal queuing. Grand Avenue eastbound left turns at all three (3) of the study area intersections are expected to operate at LOS B or better during the peak hours. Southbound turns onto Grand Avenue are expected to operate at LOS D or better at all study area intersections. In addition, vehicle queues at each of the three locations are expected to be less than two (2) vehicles in length during the peak hours.

The SimTraffic model shows efficient progression and movement of the traffic along the roadway segment, with minimal queuing or delay. Turning movements at each of the three access points are not expected to interfere with each other, nor are they expected to have an adverse impact to traffic flow along Grand Avenue for Existing Plus Project conditions.

The Synchro HCM LOS Analysis worksheets for Existing Plus Project conditions are included in Appendix B.

Opening Year (2017) Plus Project Conditions

For Opening Year (2017) Plus Project conditions, the Synchro analysis indicates that all study area intersections are projected to operate at an acceptable LOS, with minimal queuing. Grand Avenue eastbound left turns at all three (3) of the study area intersections are expected to operate at LOS B or better during the peak hours. Southbound turns onto Grand Avenue are expected to operate at LOS D or better at all study area intersections. In addition, vehicle queues at each of the three locations are expected to be less than two (2) vehicles in length during the peak hours.

The SimTraffic model shows efficient progression and movement of the traffic along the roadway segment, with minimal queuing or delay. Turning movements at each of the three access points are not expected to interfere with each other, nor are they expected to have an adverse impact to traffic flow along Grand Avenue during Opening Year (2017) Plus Project conditions.

The Synchro HCM LOS Analysis worksheets for Opening Year (2017) Plus Project conditions are included in Appendix C.

Traffic Signal Warrants

Peak hour traffic signal warrants have been performed for intersection of Project Access at Grand Avenue. Traffic signal warrant worksheets are included in Appendix D. The results of the traffic signal warrant analysis are summarized as follows:

Intersection	Existing	Existing Plus Project	Opening Year (2017) Plus Project
Project Access at Grand Avenue	N/A	Not Warranted	Not Warranted

As shown, a traffic signal is not projected to be warranted at the intersection of the Project Access at Grand Avenue for Existing Plus Project nor Opening Year (2017) Plus Project conditions.

Conclusions

RK has completed the updated Traffic Study for the Wakerider Beach Resort project which includes the original project (from the *Wakerider Beach Resort Traffic Study*, dated November 2, 2011) and the additional Wakerider Beach Park amenity (from the June 20, 2013 update) with the addition of an Opening Year (2017) Plus Project analysis. This updated study has determined that even when assuming a worst case scenario of vehicle trips being generated by the addition of a Wakerider Beach Park amenity, all study area intersections are projected to operate at Level of Service D or better during both Existing Plus Project and Opening Year (2017) Plus Project conditions with the recommended mitigation of two-way left turn medians on Grand Avenue at the Project Access and at Serena Way.

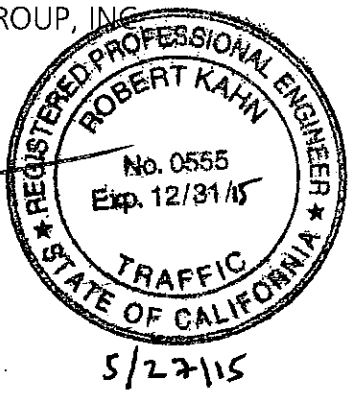
The Synchro analysis indicates that all study area intersections are projected to operate at an acceptable Level of Service, with minimal queuing for both Existing Plus Project and Opening Year (2017) Plus Project conditions. Based upon the Synchro/SimTraffic analysis of Existing Plus Project and Opening Year (2017) Plus Project conditions, with recommended improvements, operation at the proposed project access intersection with Grand Avenue will not interfere with operations at the existing adjacent intersections.

A traffic signal is not projected to be warranted at the intersection of Project Access at Grand Avenue for Existing Plus Project nor Opening Year (2017) Plus Project conditions.

It is recommended that a two-way left turn median should be constructed on Grand Avenue at the Project Access, as shown in Exhibit K. And, it is recommended that a two-way 100-foot striped median be constructed on Grand Avenue at Serena Way, as shown on Exhibit L.

RK Engineering Group, Inc. appreciates this opportunity to work with Gary Daughterty Architect on this project. If you have any questions regarding this traffic study or would like further review, please call us at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.



5/27/15

Robert Kahn, P.E.
Principal

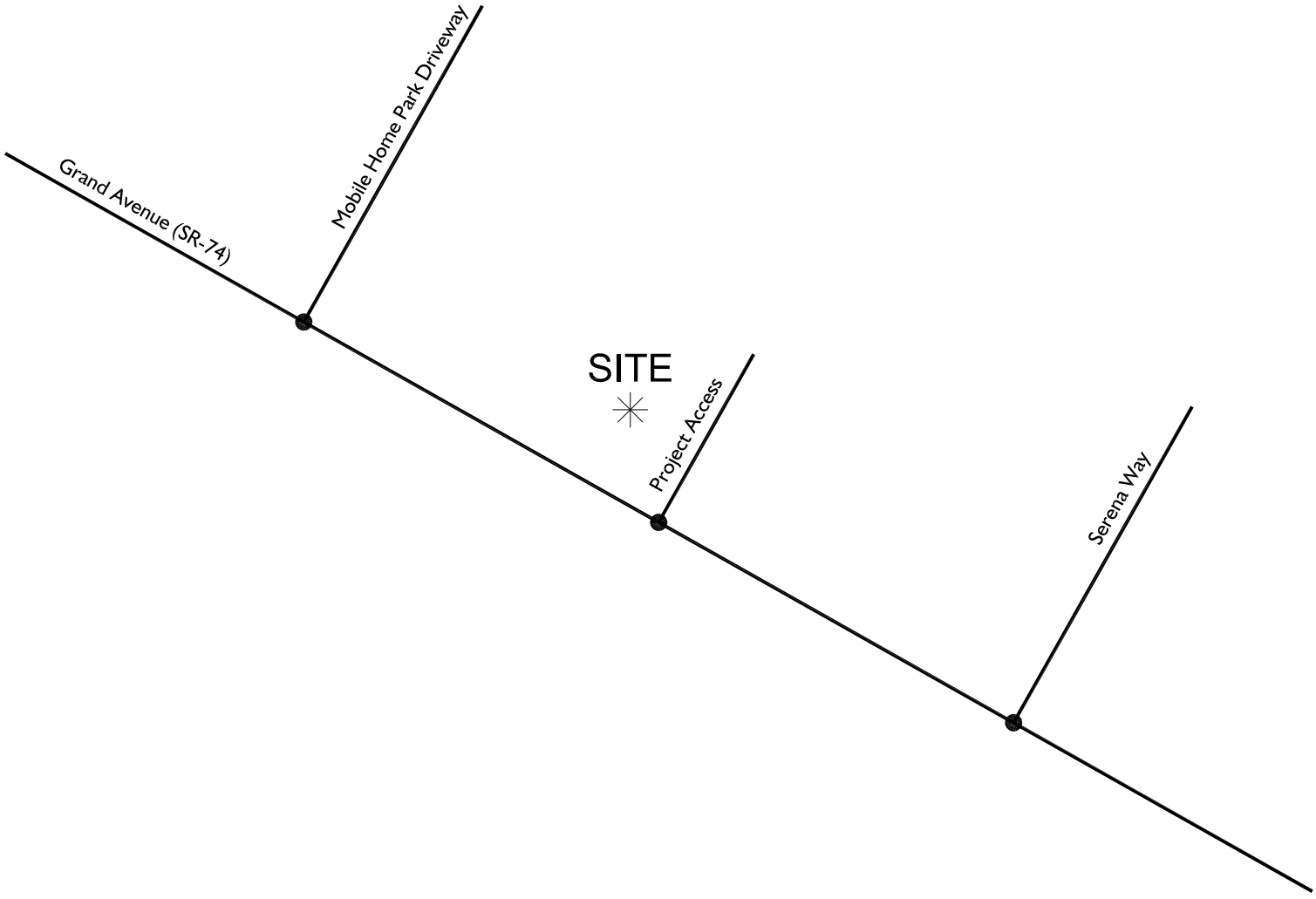
Allison Goedecke, M.B.A.
Senior Transportation Planner

Attachments

Exhibits

Exhibit A

Location Map



Legend:

● = Study Area Intersection

N

Exhibit B

Site Plan

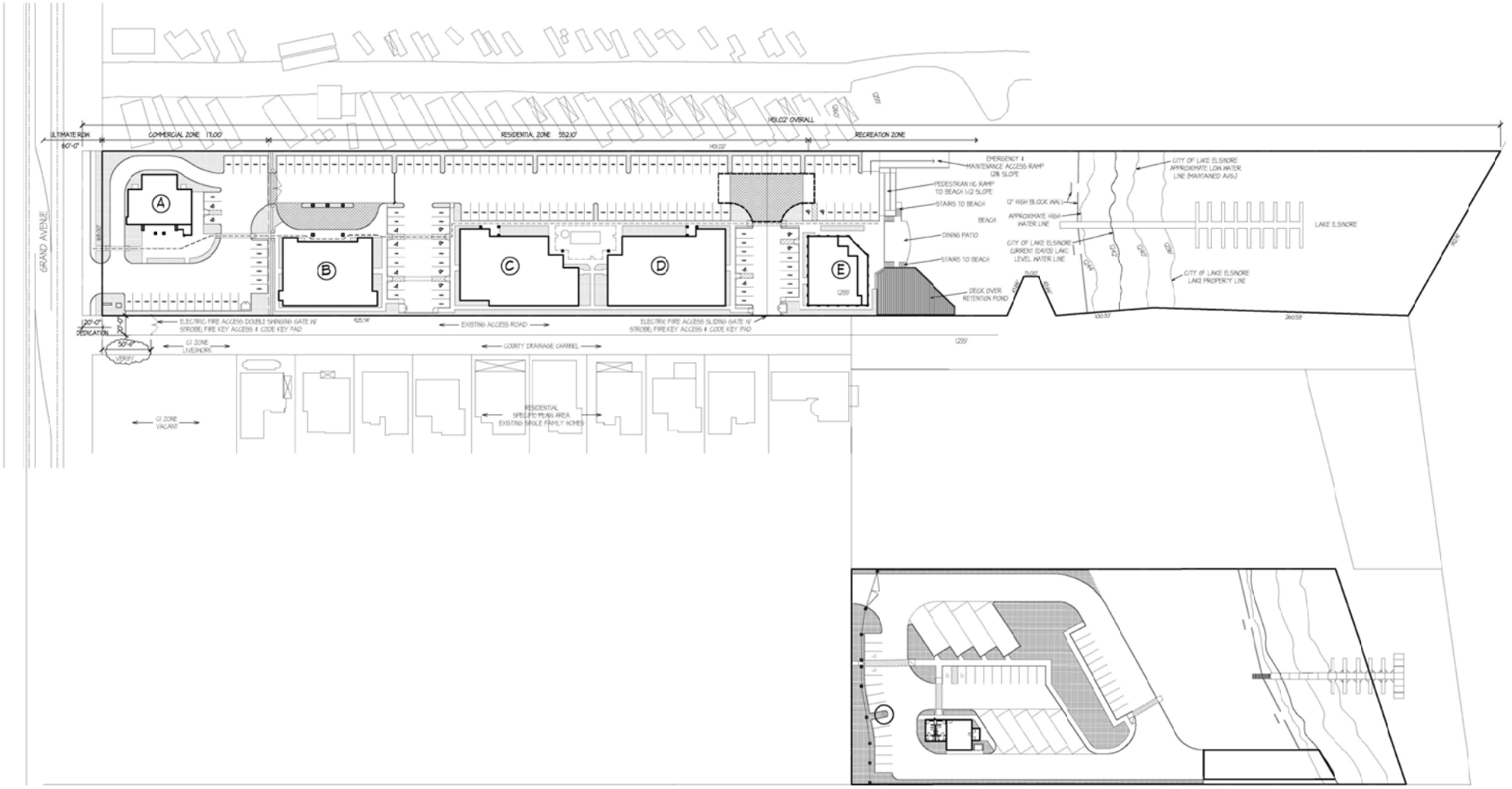


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Exhibit C

City of Lake Elsinore Circulation Element

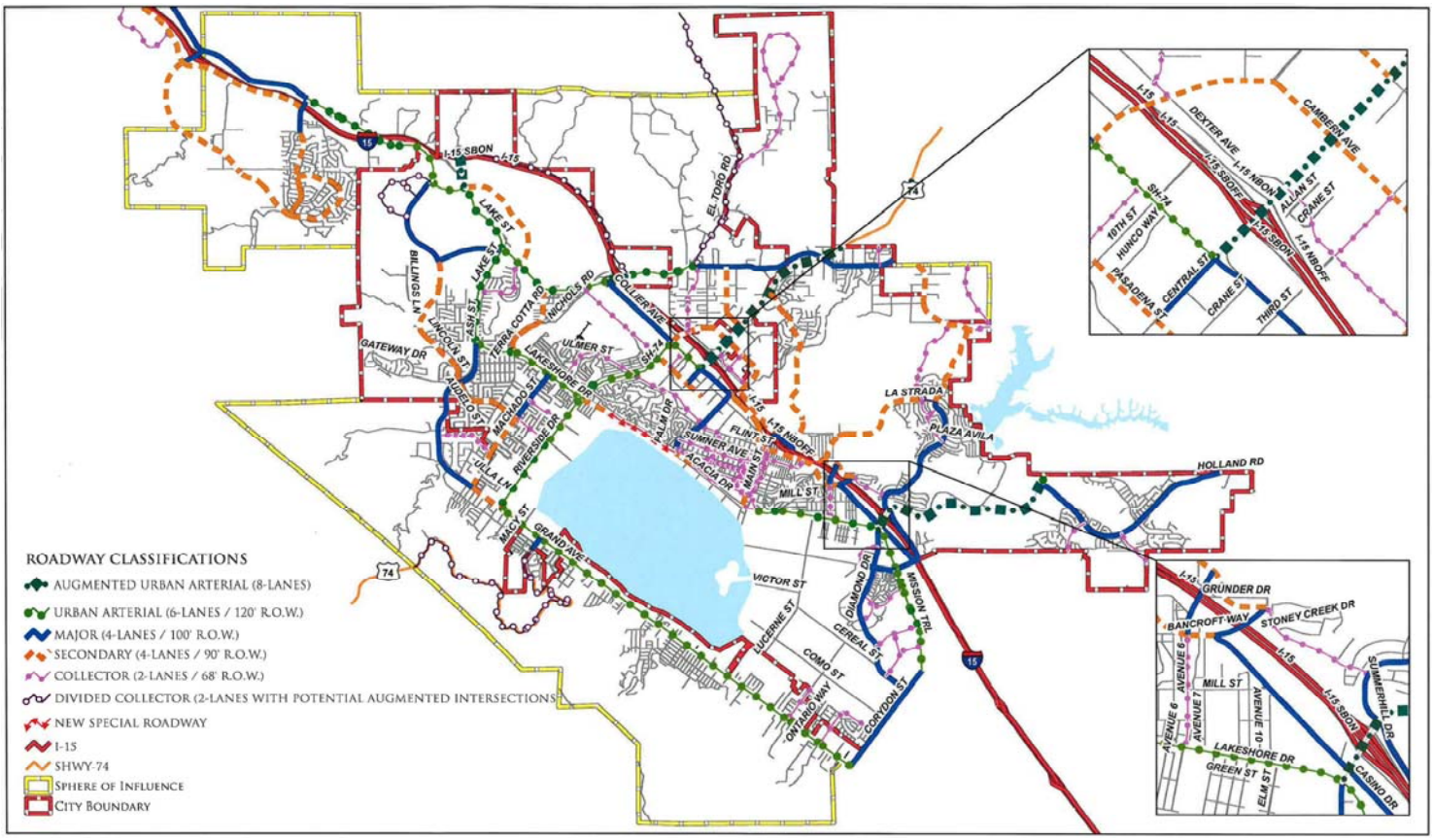

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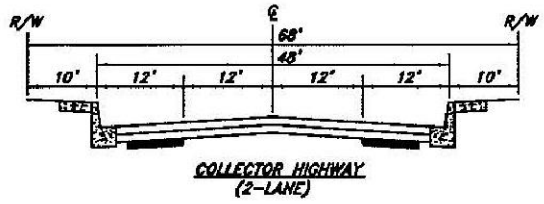
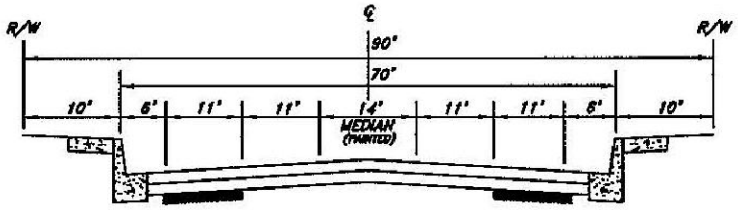
Exhibit D

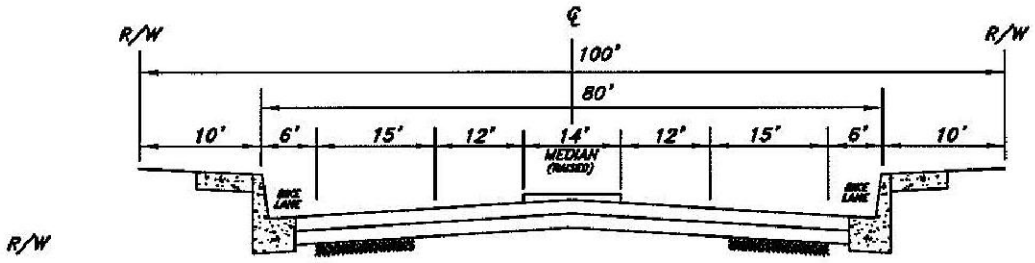
City of Lake Elsinore Roadway Cross-Sections



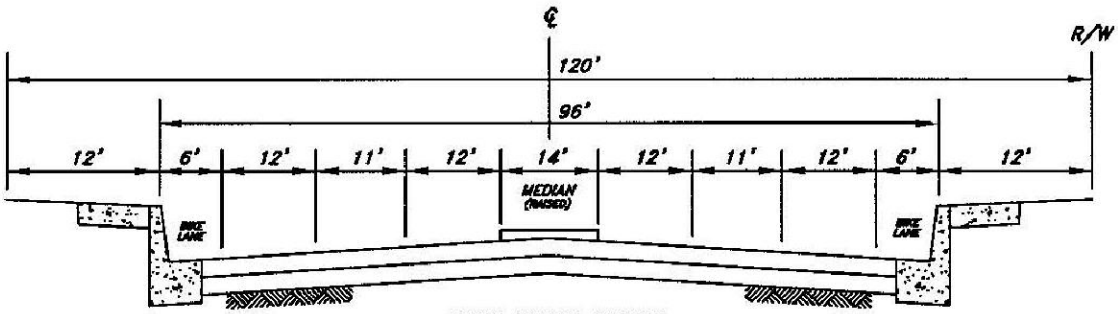
COLLECTOR HIGHWAY
(2-LANE)



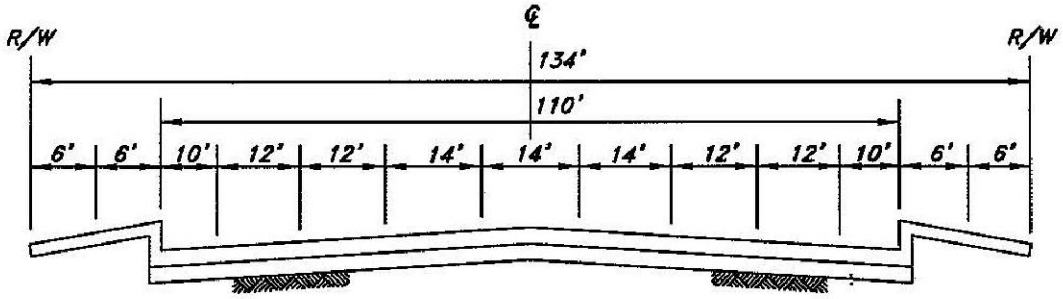
SECONDARY HIGHWAY
(4-LANE)



MAJOR HIGHWAY
(4-LANE)



URBAN ARTERIAL HIGHWAY
(6-LANE)

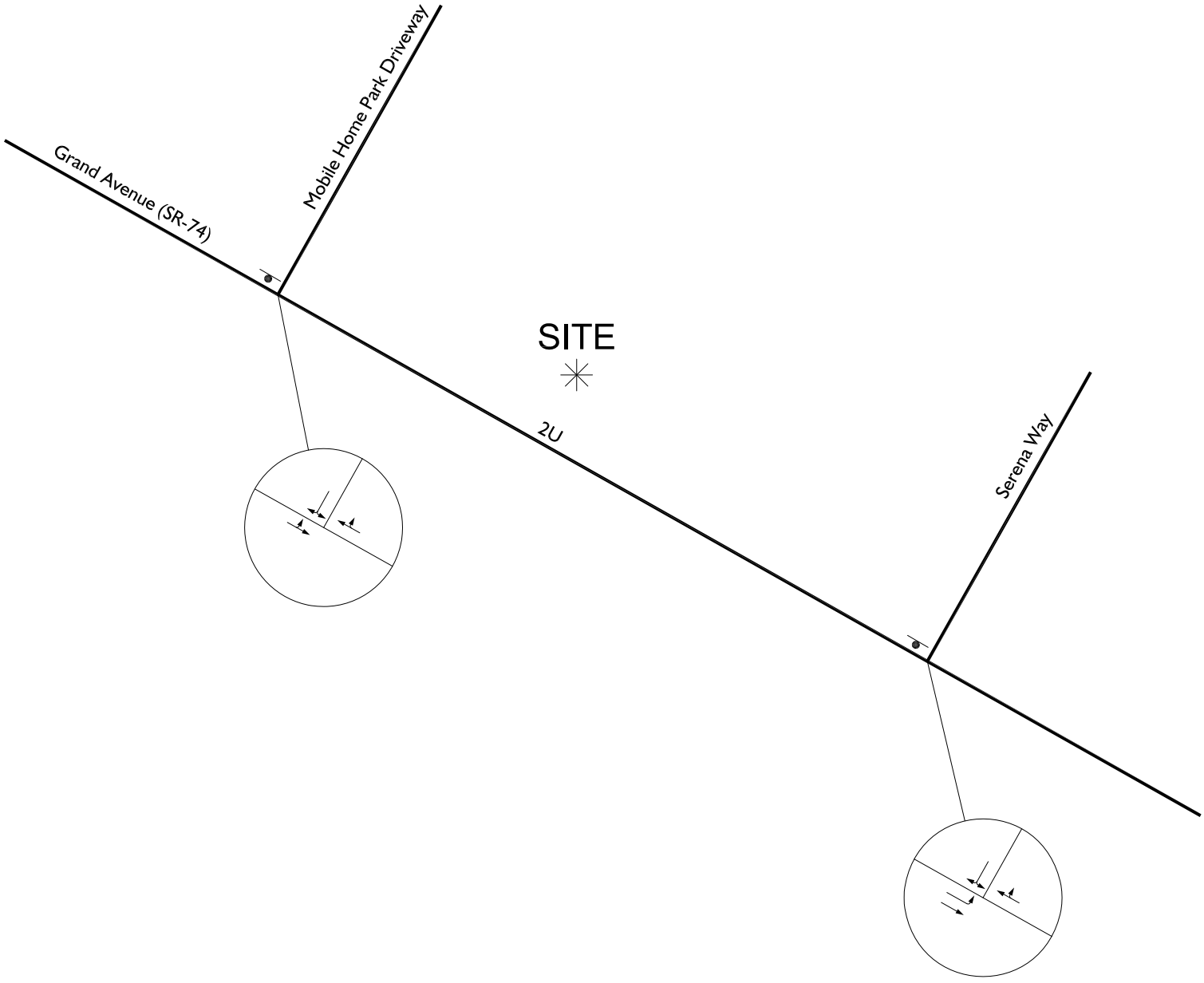


URBAN ARTERIAL-STATE HIGHWAY
(6-LANE)

N

Exhibit E

Existing Lane Geometry and Traffic Controls



Legend:

= Stop Sign

2 = Number of Lanes

U = Undivided

N

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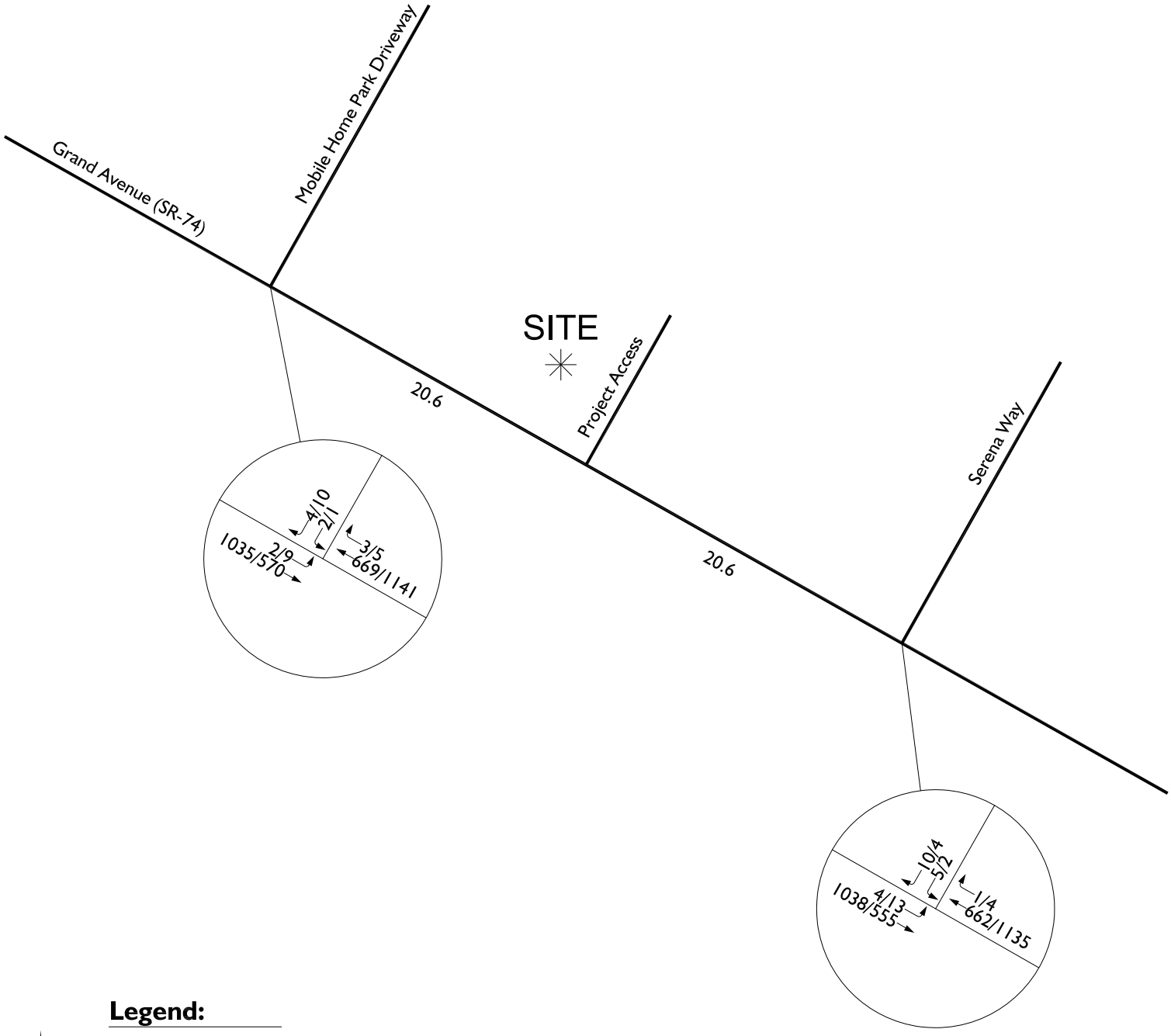
Exhibit F

Existing Traffic Volumes



Legend:

10/20 = AM/PM Peak Hour Volumes
10.0 = Average Daily Traffic (1000's)

N

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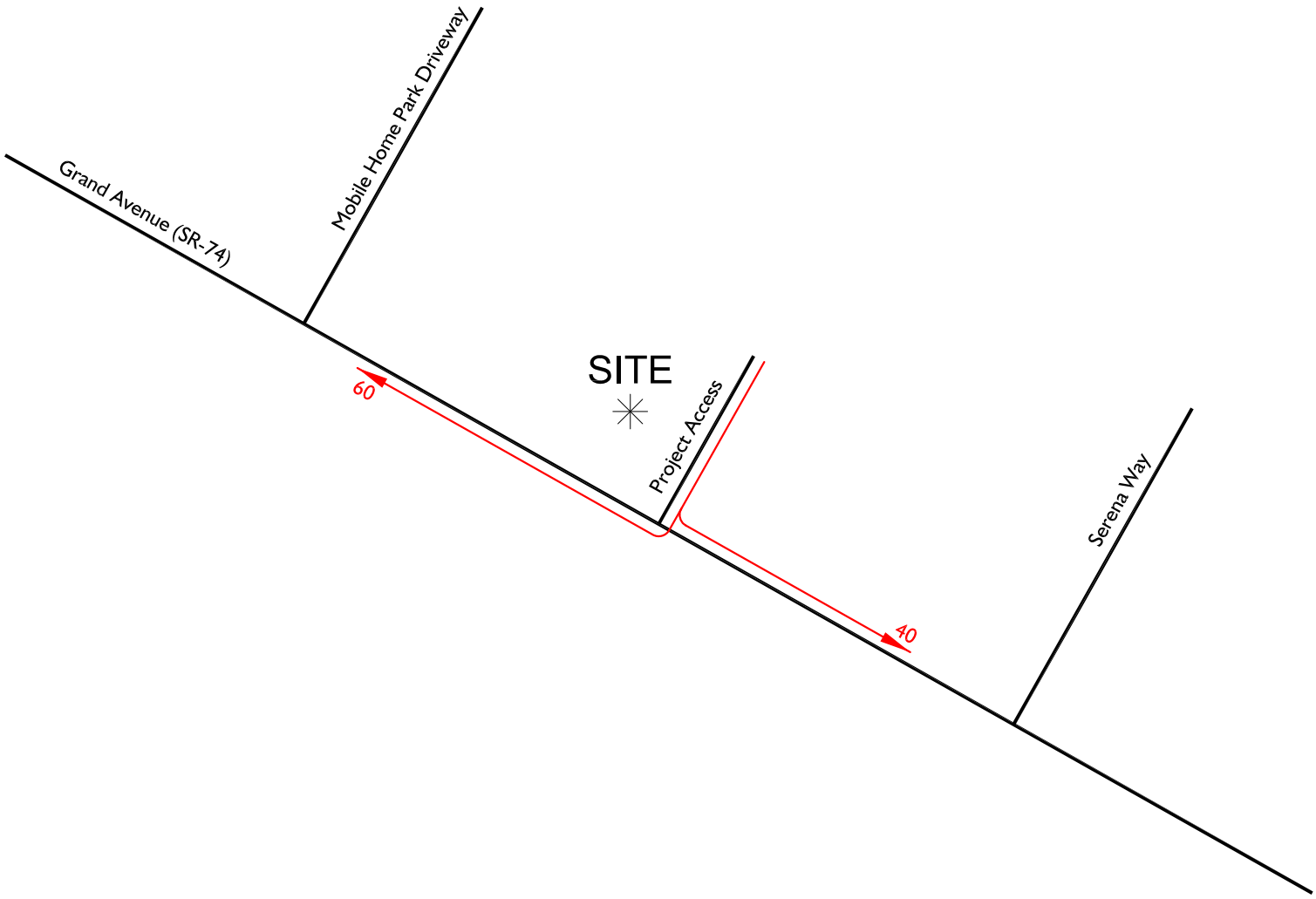
Exhibit G-1

Project Trip Distribution



Legend:

10 = Percent to Project

N

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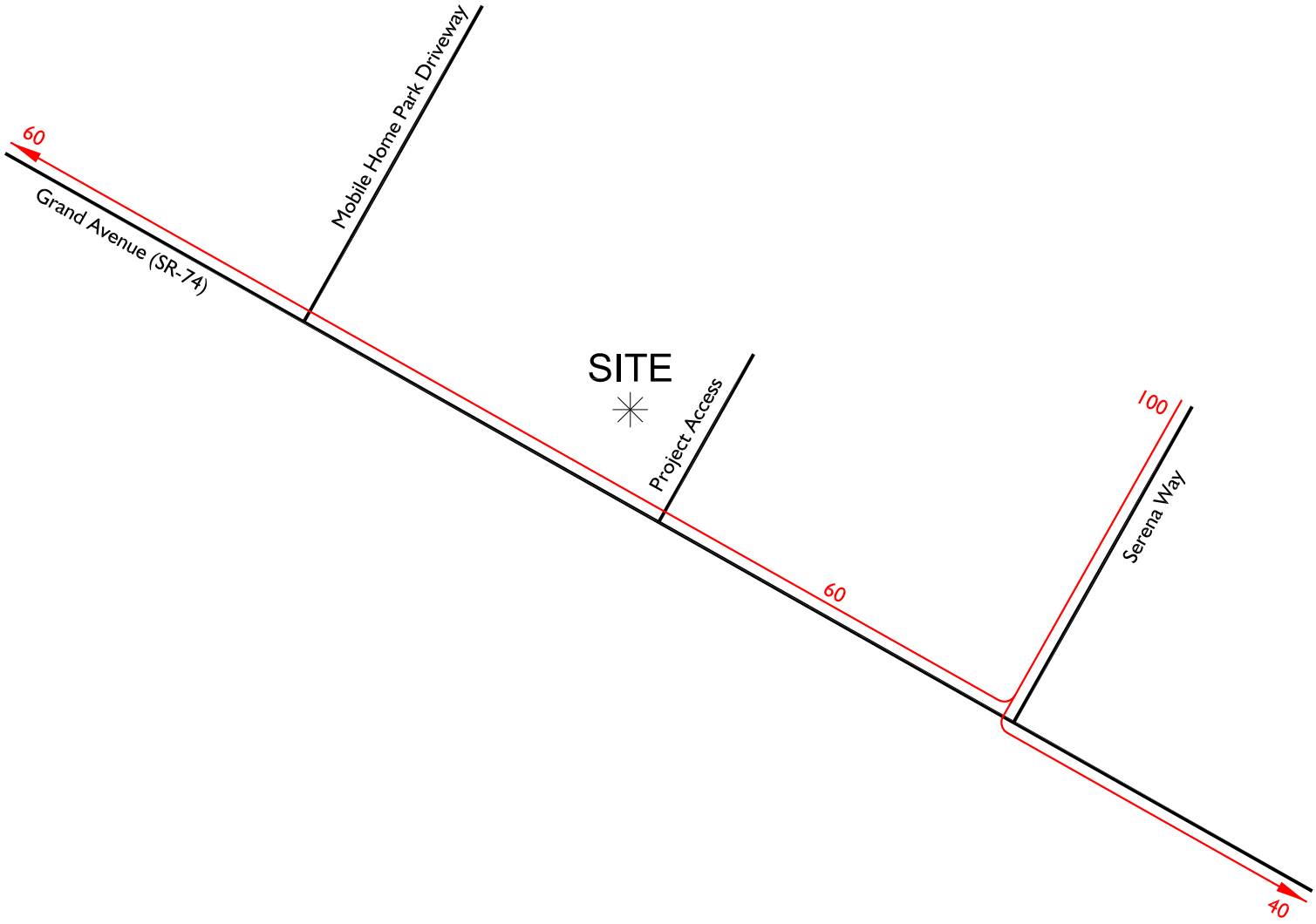
Exhibit G-2

15-Berth Marina Dock Amenity Trip Distribution



Legend:

10 = Percent to/from Project

N

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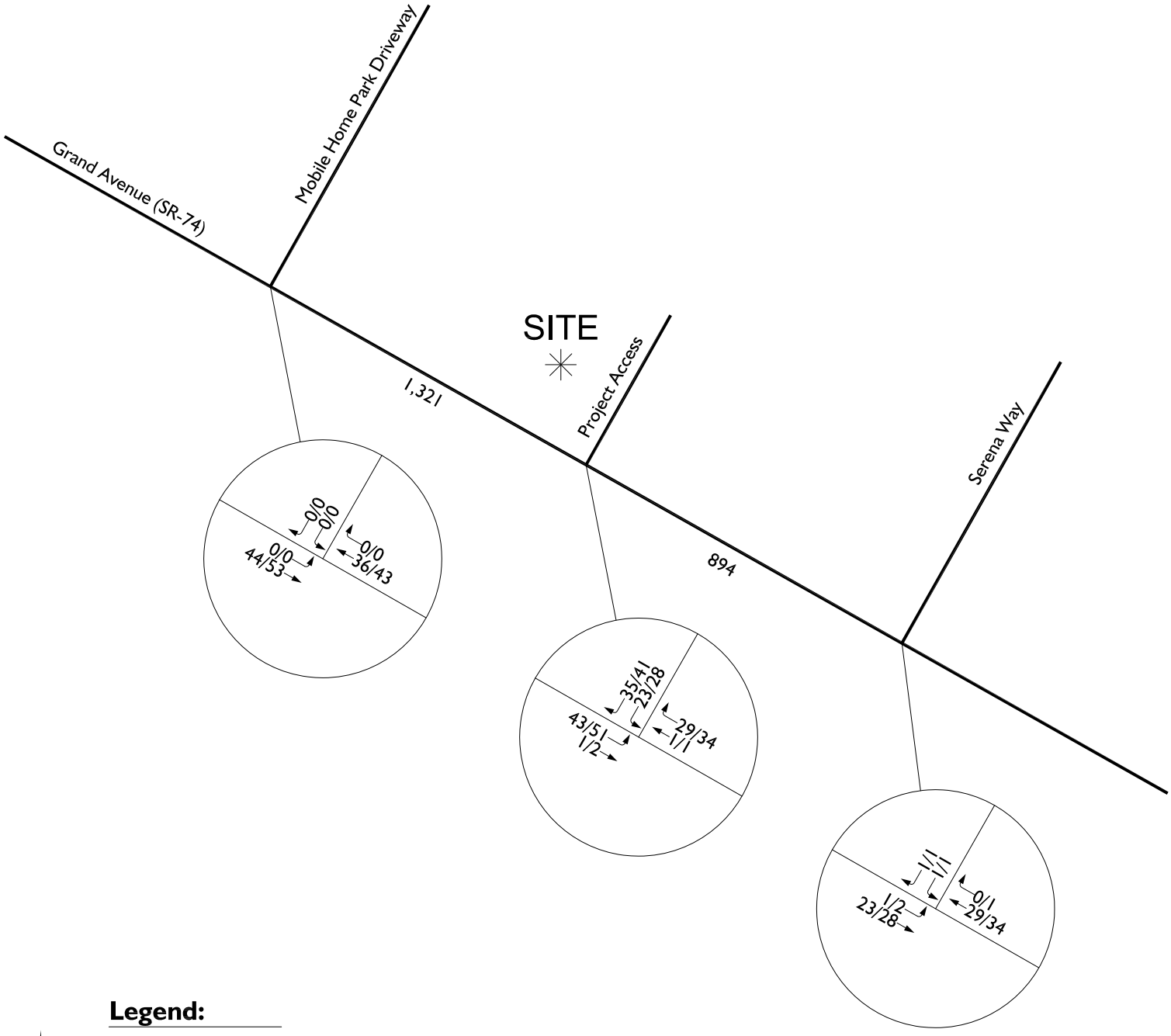
Exhibit H

Project Traffic Volumes



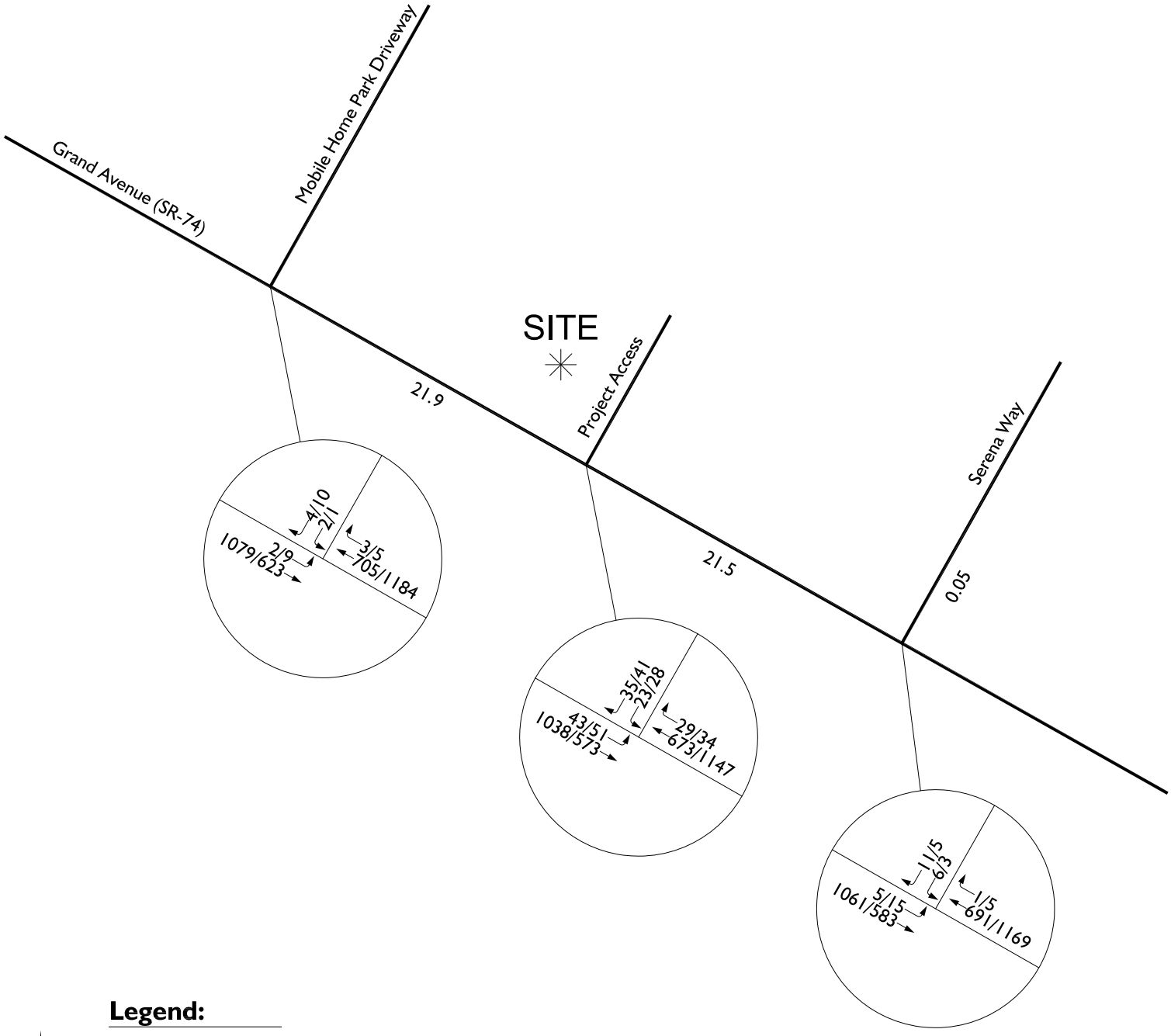
Legend:

10/20 = AM/PM Peak Hour Volumes
1,321 = Average Daily Traffic

N

Exhibit I

Existing Plus Project Traffic Volumes



Legend:

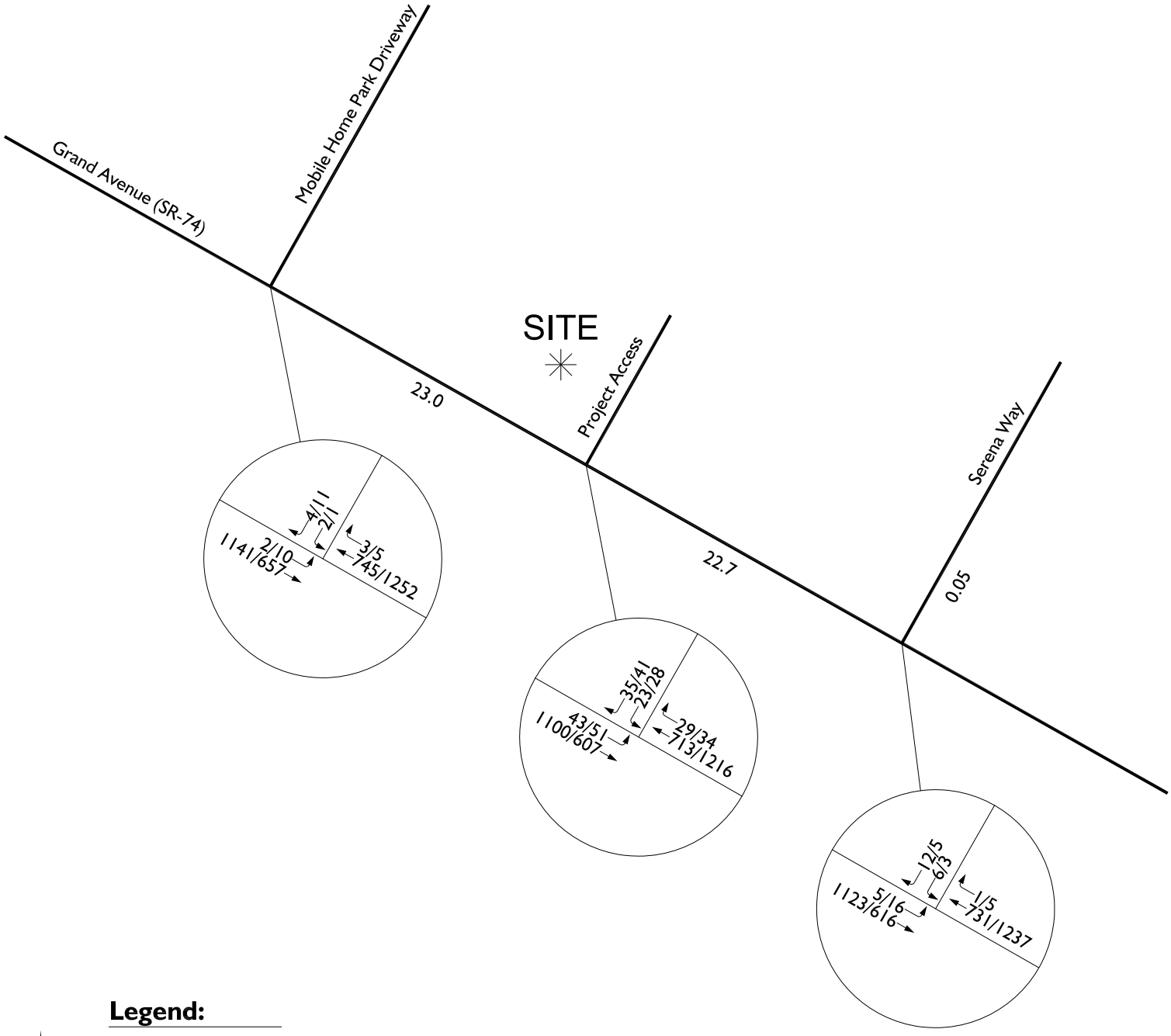
10/20 = AM/PM Peak Hour Volumes

10.0 = Average Daily Traffic (1000's)

N

Exhibit J

Opening Year (2017) Plus Project Traffic Volumes



Legend:

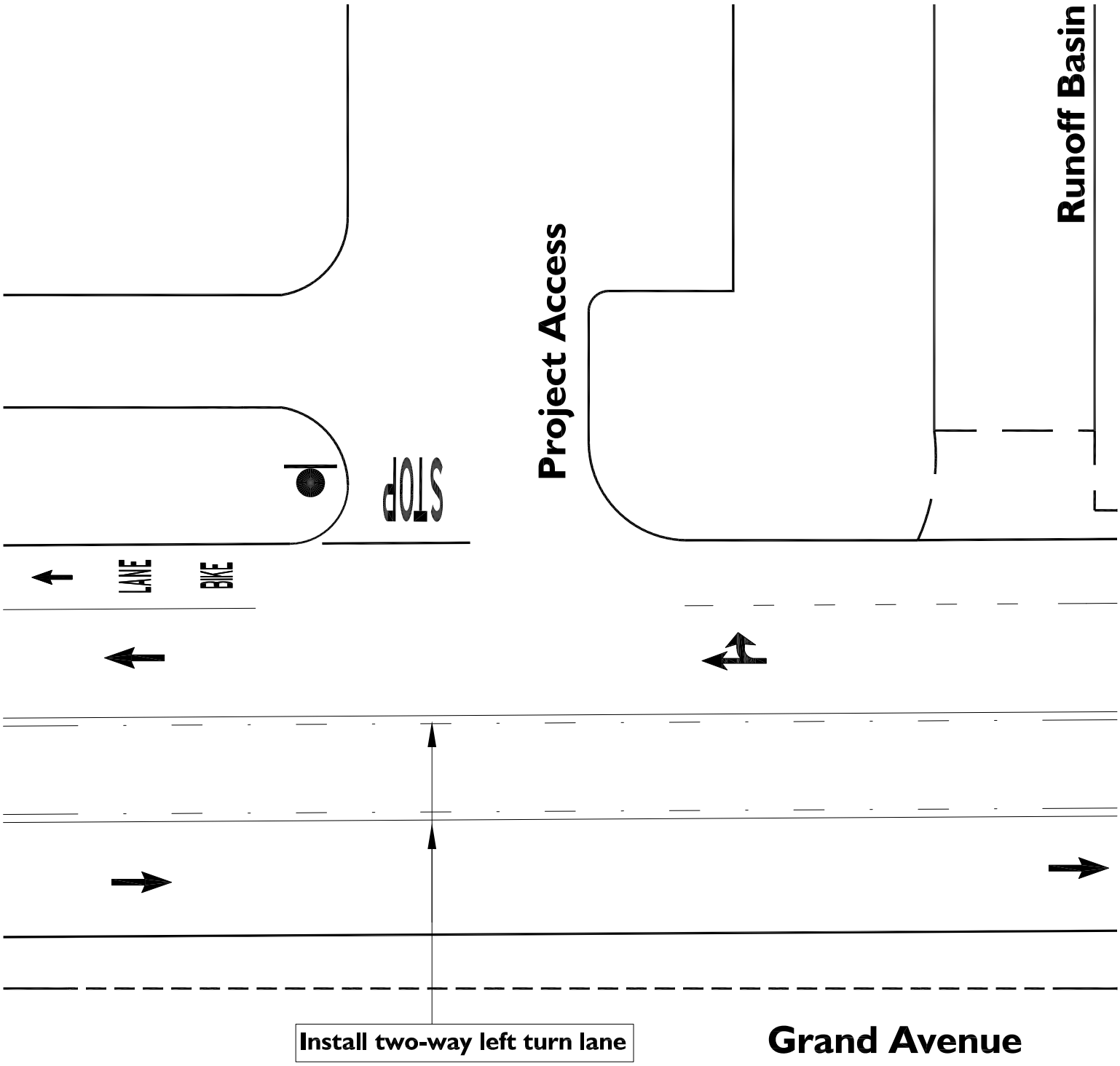
10/20 = AM/PM Peak Hour Volumes

10.0 = Average Daily Traffic (1000's)

N

Exhibit K

Conceptual Striping Plan
Project Access @ Grand Avenue



Note:
Driveway to be finalized at a later date.

N

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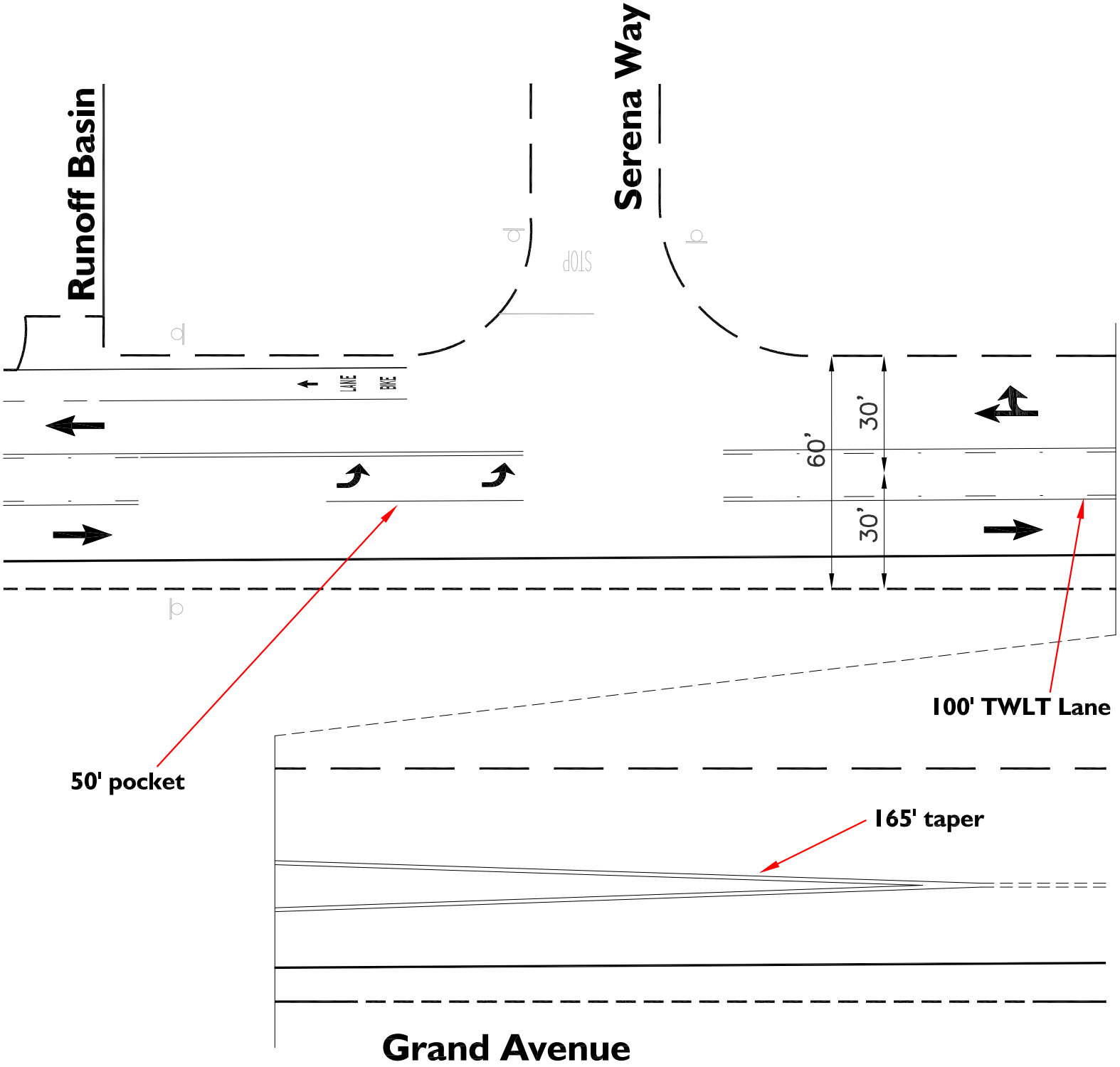
Exhibit L

Conceptual Striping Plan
Serena Way @ Grand Avenue



Tables

TABLE 1

Trip Generation Rates[1]

PROPOSED TRIP GENERATION RATES

Land Use	ITE Code	Units[2]	Peak Hour						Daily
			AM			PM			
			In	Out	Total	In	Out	Total	
Single Tenant Office Building	715	TSF	1.60	0.20	1.80	0.26	1.48	1.74	11.65
Fast Food Restaurant w/ Drive-Thru	934	TSF	23.16	22.26	45.42	16.98	15.67	32.65	496.12
Resort Hotel[3]	330	RM	0.22	0.09	0.31	0.18	0.24	0.42	6.00
Quality Restaurant	936	TSF	0.49	0.32	0.81	5.02	2.47	7.49	89.95
Marina	420	Berths	0.03	0.05	0.08	0.11	0.08	0.19	2.96

[1] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition* , 2012.

[2] TSF = Thousand Square Feet
RM = Rooms

[3] The ITE Trip Generation (9th Edition) does not provide a daily trip generation rate for Resort Hotel land use. The daily trip generation rate shown above was computed as PM Peak Hour total equal to 7% of Daily (per SANDAG rates)

TABLE 2

Project Trip Generation

PROPOSED TRIP GENERATION (With Marina)

Land Use	ITE Code	Quantity	Units[1]	Peak Hour						Daily
				AM			PM			
				In	Out	Total	In	Out	Total	
Single Tenant Office Building	715	1.785	TSF	3	0	3	0	3	3	21
Fast Food Restaurant w/ Drive-Thru	934	2.315	TSF	54	52	106	39	36	75	1,149
Resort Hotel	330	50	RM	11	4	15	9	12	21	300
Quality Sit Down Restaurant	931	7.395	TSF	4	2	6	37	18	55	665
Marina[2]	420	15	Berths	1	2	3	3	2	5	66
Total				**73**	**60**	**133**	**88**	**71**	**159**	**2,201**

[1] TSF = Thousand Square Feet
RM = Rooms

[2] Marina trip generation rates have been increased by a rate of 1.5 to calculate Passenger Car Equivalent rates (PCE) to account for vehicles travelling with boat trailers.

j:/rktables/RK10619TB.xls
JN:2239-2014-01

TABLE 3

Intersection Analysis For Existing Plus Project Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												Delay[2] (Seconds)		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Mobile Home Park Driveway (NS) at:																	
• Grand Avenue (SR-74) (EW)	CSS	0	0	0	0	1!	0	0.5	0.5	0	0	0.5	0.5	28.3	26.8	D	D
Project Access (NS) at:																	
Grand Avenue (SR-74) (EW)	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	52.9	96.3	F	F
• '-With Existing Lane Geometry	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	19.4	30.7	C	D
'-With 2-Way Left Turn Median																	
Serena Way (NS) at:																	
• Grand Avenue (SR-74) (EW)	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	30.2	34.9	D	D

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1" is indicated for the through movement and "0"s are indicated for R/L movements, the R and/or L turns are shared with the through movement.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn;**Bold** = Improvement

! = Indicates general purpose lane

[2] Analysis Software: Traffix, Version 8.0. Per the 2000 Highway Capacity Manual. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross Street Stop

TABLE 4

Intersection Analysis For Opening Year 2017 Plus Project Conditions

Intersection	Traffic Control[3]	Intersection Approach Lane(s)[1]												Delay[2] (Seconds)		Level of Service	
		Northbound			Southbound			Eastbound			Westbound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Mobile Home Park Driveway (NS) at:																	
• Grand Avenue (SR-74) (EW)	CSS	0	0	0	0	1!	0	0.5	0.5	0	0	0.5	0.5	30.0	29.0	D	D
Project Access (NS) at:																	
Grand Avenue (SR-74) (EW)	CSS	0	0	0	0	0	1	1	1	0	0	0.5	0.5	56.6	104.3	F	F
• '-With Existing Lane Geometry																	
'-With 2-Way Left Turn Median	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	19.8	31.8	C	D
Serena Way (NS) at:																	
• Grand Avenue (SR-74) (EW)																	
-With Existing Lane Geometry	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	32.3	39.3	D	E
-With 2-Way Left Turn Median	CSS	0	0	0	0	1!	0	1	1	0	0	0.5	0.5	16.8	23.3	C	C

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Where "1" is indicated for the through mov

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **Bold** = Improvement

! = Indicates general purpose lane

[2] Analysis Software: Traffix, Version 8.0. Per the 2000 Highway Capacity Manual. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross Street Stop

Appendices

Appendix A

Traffic Count Worksheets

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-6158-001 **Day:** Tuesday

City: Lake Elsinore **Date:** 8/26/2014

AM

NS/EW Streets:	Mobile Home Park Dwy			Mobile Home Park Dwy			Grand Ave			Grand Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	1	0	0	1	0	0	1	0	
7:00 AM				1		2	1	223			166	1	394
7:15 AM				0		1	1	242			219	1	464
7:30 AM				0		1	0	327			128	1	457
7:45 AM				1		0	0	243			156	0	400
8:00 AM				0		0	0	180			117	0	297
8:15 AM				1		1	1	141			86	0	230
8:30 AM				0		1	0	145			93	0	239
8:45 AM				0		0	0	150			98	0	248
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	3	0	6	3	1651	0	0	1063	3	2729
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	33.33%	0.00%	66.67%	0.18%	99.82%	0.00%	0.00%	99.72%	0.28%	
PEAK HR START-TIME :	700 AM												TOTAL
PEAK HR VOL :	0	0	0	2	0	4	2	1035	0	0	669	3	1715
PEAK HR FACTOR :		0.000			0.500			0.793			0.764		0.924

UTURNS	NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : No Control

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-6158-001 **Day:** Tuesday

City: Lake Elsinore **Date:** 8/26/2014

PM

NS/EW Streets:	Mobile Home Park Dwy			Mobile Home Park Dwy			Grand Ave			Grand Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM				0		0	1	137			231	0	369
4:15 PM				0		0	1	145			245	1	392
4:30 PM				0		2	1	132			239	1	375
4:45 PM				2		1	2	128			256	1	390
5:00 PM				0		4	4	142			291	1	442
5:15 PM				1		1	2	140			276	0	420
5:30 PM				0		4	1	149			307	2	463
5:45 PM				0		1	2	139			267	2	411
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	3	0	13	14	1112	0	0	2112	8	3262
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	18.75%	0.00%	81.25%	1.24%	98.76%	0.00%	0.00%	99.62%	0.38%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	0	1	0	10	9	570	0	0	1141	5	1736
PEAK HR FACTOR :	0.000			0.688			0.965			0.927			0.937

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : No Control

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-6158-002 **Day:** Tuesday

City: Lake Elsinore **Date:** 8/26/2014

AM

NS/EW Streets:	Serena Way			Serena Way			Grand Ave			Grand Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM				2		6	0	231			159	0	398
7:15 AM				1		2	1	237			219	0	460
7:30 AM				2		1	2	329			130	1	465
7:45 AM				0		1	1	241			154	0	397
8:00 AM				1		1	1	180			114	0	297
8:15 AM				1		0	0	141			88	2	232
8:30 AM				0		0	0	146			94	0	240
8:45 AM				1		3	0	148			94	0	246
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	8	0	14	5	1653	0	0	1052	3	2735
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	36.36%	0.00%	63.64%	0.30%	99.70%	0.00%	0.00%	99.72%	0.28%	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	0	0	0	5	0	10	4	1038	0	0	662	1	1720
PEAK HR FACTOR :		0.000			0.469			0.787			0.757		0.925

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-6158-002 **Day:** Tuesday

City: Lake Elsinore **Date:** 8/26/2014

PM

NS/EW Streets:	Serena Way			Serena Way			Grand Ave			Grand Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM				1		0	3	135			227	1	367
4:15 PM				1		2	4	143			250	1	401
4:30 PM				0		0	4	128			236	2	370
4:45 PM				2		3	2	132			265	3	407
5:00 PM				0		1	1	137			285	1	425
5:15 PM				1		1	3	140			275	1	421
5:30 PM				1		1	5	142			303	0	452
5:45 PM				0		1	4	136			272	2	415
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	0	0	6	0	9	26	1093	0	0	2113	11	3258
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	40.00%	0.00%	60.00%	2.32%	97.68%	0.00%	0.00%	99.48%	0.52%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	0	2	0	4	13	555	0	0	1135	4	1713
PEAK HR FACTOR :		0.000			0.750			0.966			0.940		0.947

UTURNS

NB	SB	EB	WB
NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (SB)

Prepared by NDS/ATD

VOLUME

Grand Ave Bet. Mobile Home Park & Serena Way

Day: Tuesday
Date: 8/26/2014

City: Lake Elsinore
Project #: CA14_6159_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	10,373	10,254	20,627

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			15		13		28		12:00			85		90		175	
00:15			26		10		36		12:15			118		96		214	
00:30			15		10		25		12:30			100		106		206	
00:45			12	68	8	41	20	109	12:45			126	429	126	418	252	847
01:00			8		10		18		13:00			137		132		269	
01:15			7		9		16		13:15			146		120		266	
01:30			5		9		14		13:30			143		113		256	
01:45			10	30	3	31	13	61	13:45			144	570	208	573	352	1143
02:00			14		7		21		14:00			142		185		327	
02:15			10		9		19		14:15			129		154		283	
02:30			6		6		12		14:30			188		179		367	
02:45			13	43	16	38	29	81	14:45			139	598	169	687	308	1285
03:00			16		12		28		15:00			143		179		322	
03:15			23		14		37		15:15			123		174		297	
03:30			20		14		34		15:30			131		263		394	
03:45			20	79	23	63	43	142	15:45			130	527	237	853	367	1380
04:00			39		23		62		16:00			137		228		365	
04:15			51		34		85		16:15			135		249		384	
04:30			81		46		127		16:30			139		240		379	
04:45			148	319	60	163	208	482	16:45			134	545	251	968	385	1513
05:00			203		49		252		17:00			135		288		423	
05:15			248		53		301		17:15			145		281		426	
05:30			257		57		314		17:30			144		302		446	
05:45			252	960	75	234	327	1194	17:45			142	566	276	1147	418	1713
06:00			225		106		331		18:00			140		283		423	
06:15			187		88		275		18:15			127		264		391	
06:30			193		111		304		18:30			138		214		352	
06:45			206	811	128	433	334	1244	18:45			129	534	173	934	302	1468
07:00			220		173		393		19:00			124		144		268	
07:15			257		208		465		19:15			126		140		266	
07:30			320		145		465		19:30			123		146		269	
07:45			248	1045	147	673	395	1718	19:45			93	466	132	562	225	1028
08:00			174		120		294		20:00			122		103		225	
08:15			144		81		225		20:15			102		110		212	
08:30			144		99		243		20:30			92		68		160	
08:45			145	607	92	392	237	999	20:45			84	400	89	370	173	770
09:00			118		92		210		21:00			78		67		145	
09:15			97		94		191		21:15			64		51		115	
09:30			109		80		189		21:30			67		55		122	
09:45			115	439	87	353	202	792	21:45			51	260	39	212	90	472
10:00			80		102		182		22:00			43		43		86	
10:15			114		93		207		22:15			47		31		78	
10:30			105		112		217		22:30			29		32		61	
10:45			103	402	98	405	201	807	22:45			42	161	38	144	80	305
11:00			107		89		196		23:00			30		38		68	
11:15			105		115		220		23:15			22		22		44	
11:30			102		134		236		23:30			27		23		50	
11:45			109	423	117	455	226	878	23:45			12	91	22	105	34	196
TOTALS				5226		3281		8507	TOTALS				5147		6973		12120
SPLIT %				61.4%		38.6%		41.2%	SPLIT %				42.5%		57.5%		58.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	10,373	10,254	20,627

AM Peak Hour			07:00	07:00	07:00	PM Peak Hour			13:45	17:00	17:00
AM Pk Volume			1045	673	1718	PM Pk Volume			603	1147	1713
Pk Hr Factor			0.816	0.809	0.924	Pk Hr Factor			0.802	0.950	0.960
7 - 9 Volume	0	0	1652	1065	2717	4 - 6 Volume	0	0	1111	2115	3226
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	1045	673	1718	4 - 6 Pk Volume	0	0	566	1147	1713
Pk Hr Factor	0.000	0.000	0.816	0.809	0.924	Pk Hr Factor	0.000	0.000	0.976	0.950	0.960

Appendix B

Existing Plus Project Intersection Analysis Worksheets

Synchro
HCM LOS Analysis

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	2	1079	705	3	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1173	766	3	2	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	770	0	-	0	1945	768
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	1177	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	844	-	-	-	71	402
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	293	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	844	-	-	-	71	402
Mov Cap-2 Maneuver	-	-	-	-	71	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	291	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	28.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	844	-	-	-	157
HCM Lane V/C Ratio	0.003	-	-	-	0.042
HCM Control Delay (s)	9.3	0	-	-	28.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	9	623	1184	5	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	663	1260	5	1	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1265	0	-	0	1944	1262
Stage 1	-	-	-	-	1262	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	549	-	-	-	71	207
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	549	-	-	-	69	207
Mov Cap-2 Maneuver	-	-	-	-	69	-
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	487	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	549	-	-	-	175
HCM Lane V/C Ratio	0.017	-	-	-	0.067
HCM Control Delay (s)	11.7	0	-	-	27
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	43	1038	673	29	23	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	1128	732	32	25	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	763	0	-	0	1969	747
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	1222	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	850	-	-	-	69	413
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	278	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	850	-	-	-	65	413
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	263	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	850	-	-	-	309
HCM Lane V/C Ratio	0.055	-	-	-	0.204
HCM Control Delay (s)	9.5	-	-	-	19.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	51	573	1147	34	28	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	623	1247	37	30	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1284	0	-	0	1999	1265
Stage 1	-	-	-	-	1265	-
Stage 2	-	-	-	-	734	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	540	-	-	-	66	207
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	475	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	540	-	-	-	59	207
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	427	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	31
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	540	-	-	-	212
HCM Lane V/C Ratio	0.103	-	-	-	0.354
HCM Control Delay (s)	12.4	-	-	-	31
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	1061	691	1	6	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1141	743	1	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	744	0	-	0	1896	744
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	1152	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	864	-	-	-	76	415
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	301	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	864	-	-	-	76	415
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	299	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	864	-	-	-	161
HCM Lane V/C Ratio	0.006	-	-	-	0.114
HCM Control Delay (s)	9.2	-	-	-	30.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	583	1169	5	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	614	1231	5	3	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1236	0	-	0	1878	1233
Stage 1	-	-	-	-	1233	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	564	-	-	-	78	216
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	564	-	-	-	76	216
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	35.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	564	-	-	-	128
HCM Lane V/C Ratio	0.028	-	-	-	0.066
HCM Control Delay (s)	11.6	-	-	-	35.1
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Traffix
HCM LOS Analysis

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 MOBILE HOME PARK DWY (NS) AT GRAND AVE (SR-74 (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: D[28.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			0 1 0 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	2	0	4	2	1035	0	0	669	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	2	0	4	2	1035	0	0	669	3
Added Vol:	0	0	0	0	0	0	0	44	0	0	36	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	4	2	1079	0	0	705	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	2	0	4	2	1168	0	0	763	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	2	0	4	2	1168	0	0	763	3
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1937	1937	765	766	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	73	66	407	856	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	73	66	407	856	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.03	0.00	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	161	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	28.3	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			28.3			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 MOBILE HOME PARK DWY (NS) AT GRAND AVE (SR-74 (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: D[26.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	0 1	0 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	1	0	10	9	570	0	0	1141	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1	0	10	9	570	0	0	1141	5
Added Vol:	0	0	0	0	0	0	0	53	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1	0	10	9	623	0	0	1184	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	1	0	11	10	665	0	0	1264	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	1	0	11	10	665	0	0	1264	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1950	1950	1266	1269	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	72	65	208	554	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	71	64	208	554	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.05	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	177	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	26.8	xxxxx	11.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			26.8			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
EXISTING PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[52.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1037	0	0	672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	1037	0	0	672	0
Added Vol:	0	0	0	23	0	35	43	1	0	0	1	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	23	0	35	43	1038	0	0	673	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	25	0	38	47	1128	0	0	732	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	25	0	38	47	1128	0	0	732	32
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1969	1969	747	763	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	70	63	416	859	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	67	60	416	859	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.37	0.00	0.09	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	135	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	2.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	52.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			52.9			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

With 2-Way Median

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
EXISTING PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[19.4]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1037	0	0	672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	1037	0	0	672	0
Added Vol:	0	0	0	23	0	35	43	1	0	0	1	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	23	0	35	43	1038	0	0	673	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	25	0	38	47	1128	0	0	732	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	25	0	38	47	1128	0	0	732	32
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1969	1969	747	763	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	70	63	416	859	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	67	60	416	859	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	168	198	xxxxx	226	204	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	0.00	0.09	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	312	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	19.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.4			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Note: Queue reported is the number of cars per lane.

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WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
EXISTING PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: F[96.3]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	571	0	0	1146	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	571	0	0	1146	0
Added Vol:	0	0	0	28	0	41	51	2	0	0	1	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	28	0	41	51	573	0	0	1147	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	30	0	45	55	623	0	0	1247	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	30	0	45	55	623	0	0	1247	37
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1999	1999	1265	1284	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	67	61	209	547	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	62	55	209	547	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.49	0.00	0.21	0.10	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	106	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	3.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	96.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			96.3			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

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Note: Queue reported is the number of cars per lane.

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With 2-Way Median

WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: D[30.7]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	571	0	0	1146	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	571	0	0	1146	0
Added Vol:	0	0	0	28	0	41	51	2	0	0	1	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	28	0	41	51	573	0	0	1147	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	30	0	45	55	623	0	0	1247	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	30	0	45	55	623	0	0	1247	37
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1999	1999	1265	1284	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	67	61	209	547	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	62	55	209	547	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	97	161	xxxxx	222	200	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	0.00	0.21	0.10	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	214	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	30.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			30.7			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

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Note: Queue reported is the number of cars per lane.

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WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
EXISTING PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: D[30.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	5	0	10	4	1038	0	0	662	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	5	0	10	4	1038	0	0	662	1
Added Vol:	0	0	0	1	0	1	1	23	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	11	5	1061	0	0	691	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	6	0	12	5	1147	0	0	747	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	12	5	1147	0	0	747	1
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1905	1905	748	748	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	76	69	416	870	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	76	69	416	870	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	0.00	0.03	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	161	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	30.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			30.2			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
EXISTING PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: D[34.9]

Approach:	North Bound			South Bound			East Bound				West Bound				
Movement:	L	- T	- R	L	- T	- R	L	- T	- R		L	- T	- R		
Control:	Stop Sign			Stop Sign			Uncontrolled				Uncontrolled				
Rights:	Include			Include			Include				Include				
Lanes:	0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0		0 0	0 1	0		
Volume Module:															
Base Vol:	0	0	0	2	0	4	13	555	0		0	1135	4		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		
Initial Bse:	0	0	0	2	0	4	13	555	0		0	1135	4		
Added Vol:	0	0	0	1	0	1	2	28	0		0	34	1		
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0		
Initial Fut:	0	0	0	3	0	5	15	583	0		0	1169	5		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95		
PHF Volume:	0	0	0	3	0	5	16	616	0		0	1234	5		
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0		
FinalVolume:	0	0	0	3	0	5	16	616	0		0	1234	5		
Critical Gap Module:															
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
Capacity Module:															
Cnflict Vol:	xxxx	xxxx	xxxxx	1884	1884	1237	1240	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx	79	72	217	569	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx	77	70	217	569	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx	0.04	0.00	0.02	0.03	xxxx	xxxx		xxxx	xxxx	xxxx		
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
LOS by Move:	*	*	*	*	*	*	B	*	*		*	*	*		
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	129	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	34.9	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*	*	D	*	*	*	*		*	*	*		
ApproachDel:	xxxxxx			34.9			xxxxxx				xxxxxx				
ApproachLOS:	*			D			*				*				

Note: Queue reported is the number of cars per lane.

Appendix C

Opening Year (2017) Plus Project Intersection Analysis Worksheets

Synchro
HCM LOS Analysis

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	2	1141	745	3	2	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1201	784	3	2	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	787	0	-	0	1991	786
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	1205	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	832	-	-	-	67	392
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	284	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	832	-	-	-	67	392
Mov Cap-2 Maneuver	-	-	-	-	67	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	282	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	832	-	-	-	150
HCM Lane V/C Ratio	0.003	-	-	-	0.042
HCM Control Delay (s)	9.3	0	-	-	30.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	657	1252	5	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	692	1318	5	1	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1323	0	-	0	2034	1321
Stage 1	-	-	-	-	1321	-
Stage 2	-	-	-	-	713	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	522	-	-	-	63	191
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	486	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	522	-	-	-	61	191
Mov Cap-2 Maneuver	-	-	-	-	61	-
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	469	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	29.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	522	-	-	-	162
HCM Lane V/C Ratio	0.02	-	-	-	0.078
HCM Control Delay (s)	12	0	-	-	29.1
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	43	1100	713	29	23	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	1158	751	31	24	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	781	0	-	0	2014	766
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	1248	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	837	-	-	-	65	403
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	271	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	837	-	-	-	62	403
Mov Cap-2 Maneuver	-	-	-	-	218	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	256	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	837	-	-	-	302
HCM Lane V/C Ratio	0.054	-	-	-	0.202
HCM Control Delay (s)	9.5	-	-	-	19.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	51	607	1216	34	28	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	639	1280	36	29	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1316	0	-	0	2044	1298
Stage 1	-	-	-	-	1298	-
Stage 2	-	-	-	-	746	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	525	-	-	-	62	198
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	525	-	-	-	56	198
Mov Cap-2 Maneuver	-	-	-	-	212	-
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	32.3
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	525	-	-	-	203
HCM Lane V/C Ratio	0.102	-	-	-	0.358
HCM Control Delay (s)	12.6	-	-	-	32.3
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	1123	732	1	6	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1182	771	1	6	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	772	0	-	0	1964	771
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	1193	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	843	-	-	-	69	400
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	288	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	843	-	-	-	69	400
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	286	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	843	-	-	-	325
HCM Lane V/C Ratio	0.006	-	-	-	0.058
HCM Control Delay (s)	9.3	-	-	-	16.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	616	1237	5	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	2	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	648	1302	5	3	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1307	0	-	0	1987	1305
Stage 1	-	-	-	-	1305	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	530	-	-	-	67	196
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-		-		
Mov Cap-1 Maneuver	530	-	-	-	65	196
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	486	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	530	-	-	-	204
HCM Lane V/C Ratio	0.032	-	-	-	0.041
HCM Control Delay (s)	12	-	-	-	23.4
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Traffix
HCM LOS Analysis

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
OPENING YEAR (2017) PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 MOBILE HOME PARK DWY (NS) AT GRAND AVE (SR-74 (EW)

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: D[30.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0	0	0 1	0 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	2	0	4	2	1035	0	0	669	3
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	2	0	4	2	1097	0	0	709	3
Added Vol:	0	0	0	0	0	0	0	44	0	0	36	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	2	0	4	2	1141	0	0	745	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	2	0	4	2	1201	0	0	784	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	2	0	4	2	1201	0	0	784	3
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1992	1992	786	788	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	67	61	395	841	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	67	61	395	841	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.03	0.00	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	151	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	30.0	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			30.0			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #1 MOBILE HOME PARK DWY (NS) AT GRAND AVE (SR-74 (EW)

****

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: D[29.0]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0	0	0 1 0	0 0	0	0 0 0	1 0	
Volume Module:												
Base Vol:	0	0	0	1	0	10	9	570	0	0	1141	5
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	1	0	11	10	604	0	0	1209	5
Added Vol:	0	0	0	0	0	0	0	53	0	0	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1	0	11	10	657	0	0	1252	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	1	0	11	10	692	0	0	1318	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	1	0	11	10	692	0	0	1318	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2033	2033	1321	1324	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	64	58	193	528	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	63	57	193	528	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.06	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	163	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	29.0	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			29.0			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

****

Note: Queue reported is the number of cars per lane.

****

WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[56.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1037	0	0	672	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	0	0	0	0	1099	0	0	712	0
Added Vol:	0	0	0	23	0	35	43	1	0	0	1	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	23	0	35	43	1100	0	0	713	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	24	0	37	45	1158	0	0	751	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	24	0	37	45	1158	0	0	751	31
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2015	2015	766	781	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	65	59	406	845	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	63	56	406	845	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.39	0.00	0.09	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	128	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	56.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			56.6			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

With 2-Way Median

WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[19.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	1037	0	0	672	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	0	0	0	0	1099	0	0	712	0
Added Vol:	0	0	0	23	0	35	43	1	0	0	1	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	23	0	35	43	1100	0	0	713	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	24	0	37	45	1158	0	0	751	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	24	0	37	45	1158	0	0	751	31
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2015	2015	766	781	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	65	59	406	845	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	63	56	406	845	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	163	192	xxxxx	219	198	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	0.00	0.09	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	304	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	19.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Note: Queue reported is the number of cars per lane.

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WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[104.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	571	0	0	1146	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	0	0	0	0	605	0	0	1215	0
Added Vol:	0	0	0	28	0	41	51	2	0	0	1	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	28	0	41	51	607	0	0	1216	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	29	0	43	54	639	0	0	1280	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	29	0	43	54	639	0	0	1280	36
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2044	2044	1298	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	63	57	200	532	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	58	51	200	532	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.51	0.00	0.22	0.10	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	100	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	3.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	104	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			104.3			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

With 2-Way Median

WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[16.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0	0	1 0 1	0 0	0	0 0 0	1 0	
Volume Module:												
Base Vol:	0	0	0	5	0	10	4	1038	0	0	662	1
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	5	0	11	4	1100	0	0	702	1
Added Vol:	0	0	0	1	0	1	1	23	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	12	5	1123	0	0	731	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	7	0	12	6	1182	0	0	769	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	7	0	12	6	1182	0	0	769	1
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1963	1963	770	770	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	70	64	404	853	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	70	63	404	853	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	188	215	xxxxx	239	216	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.03	0.00	0.03	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	325	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Note: Queue reported is the number of cars per lane.

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WAKERIDER BEACH RESORT
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: D[32.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0	0	1 0 1	0 0	0	0 0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	5	0	10	4	1038	0	0	662	1
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	5	0	11	4	1100	0	0	702	1
Added Vol:	0	0	0	1	0	1	1	23	0	0	29	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	12	5	1123	0	0	731	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	7	0	12	6	1182	0	0	769	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	7	0	12	6	1182	0	0	769	1
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1963	1963	770	770	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	70	64	404	853	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	70	63	404	853	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	0.00	0.03	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	151	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	32.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			32.3			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

With 2-Way Median

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
OPENING YEAR (2017) PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #2 PROJECT DRIVEWAY (NS) AT GRAND AVE (SR-74) (EW)

****

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: D[31.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	571	0	0	1146	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	0	0	0	0	605	0	0	1215	0
Added Vol:	0	0	0	28	0	41	51	2	0	0	1	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	28	0	41	51	607	0	0	1216	34
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	29	0	43	54	639	0	0	1280	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	29	0	43	54	639	0	0	1280	36
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	2044	2044	1298	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	63	57	200	532	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	58	51	200	532	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	92	155	xxxxx	214	193	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	0.00	0.22	0.10	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	205	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	31.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			31.8			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

****

Note: Queue reported is the number of cars per lane.

****

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
OPENING YEAR (2017) PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: E[39.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0		1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	2	0	4	13	555	0	0	1135	4
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	2	0	4	14	588	0	0	1203	4
Added Vol:	0	0	0	1	0	1	2	28	0	0	34	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	5	16	616	0	0	1237	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	3	0	6	17	649	0	0	1302	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	3	0	6	17	649	0	0	1302	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1987	1987	1305	1308	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	68	62	198	536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	66	60	198	536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.05	0.00	0.03	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	114	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	39.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	E	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			39.3			xxxxxx			xxxxxx		
ApproachLOS:	*			E			*			*		

Note: Queue reported is the number of cars per lane.

With 2-Way Median

WAKERIDER BEACH RESORT
TRAFFIC IMPACT STUDY
OPENING YEAR (2017) PLUS PROJECT CONDITIONS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 SERENA WAY (NS) AT GRAND AVE (SR-74) (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[23.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0 1!	0 0		1 0	1 0	0	0 0	0 1	0
Volume Module:												
Base Vol:	0	0	0	2	0	4	13	555	0	0	1135	4
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	0	0	2	0	4	14	588	0	0	1203	4
Added Vol:	0	0	0	1	0	1	2	28	0	0	34	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	3	0	5	16	616	0	0	1237	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	3	0	6	17	649	0	0	1302	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	3	0	6	17	649	0	0	1302	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1987	1987	1305	1308	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	68	62	198	536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	66	60	198	536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Total Cap:	157	188	xxxxx	221	200	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.01	0.00	0.03	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	206	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	23.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			23.3			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Appendix D

Traffic Signal Warrant Analysis Worksheets

2012 Edition

WARRANT 3, PEAK HOUR (70% FACTOR)
(Rural Areas)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING PLUS PROJECT AM**

Major Street Name = **GRAND AVE (SR-17)**

Total of Both Approaches (VPH) = **1783**

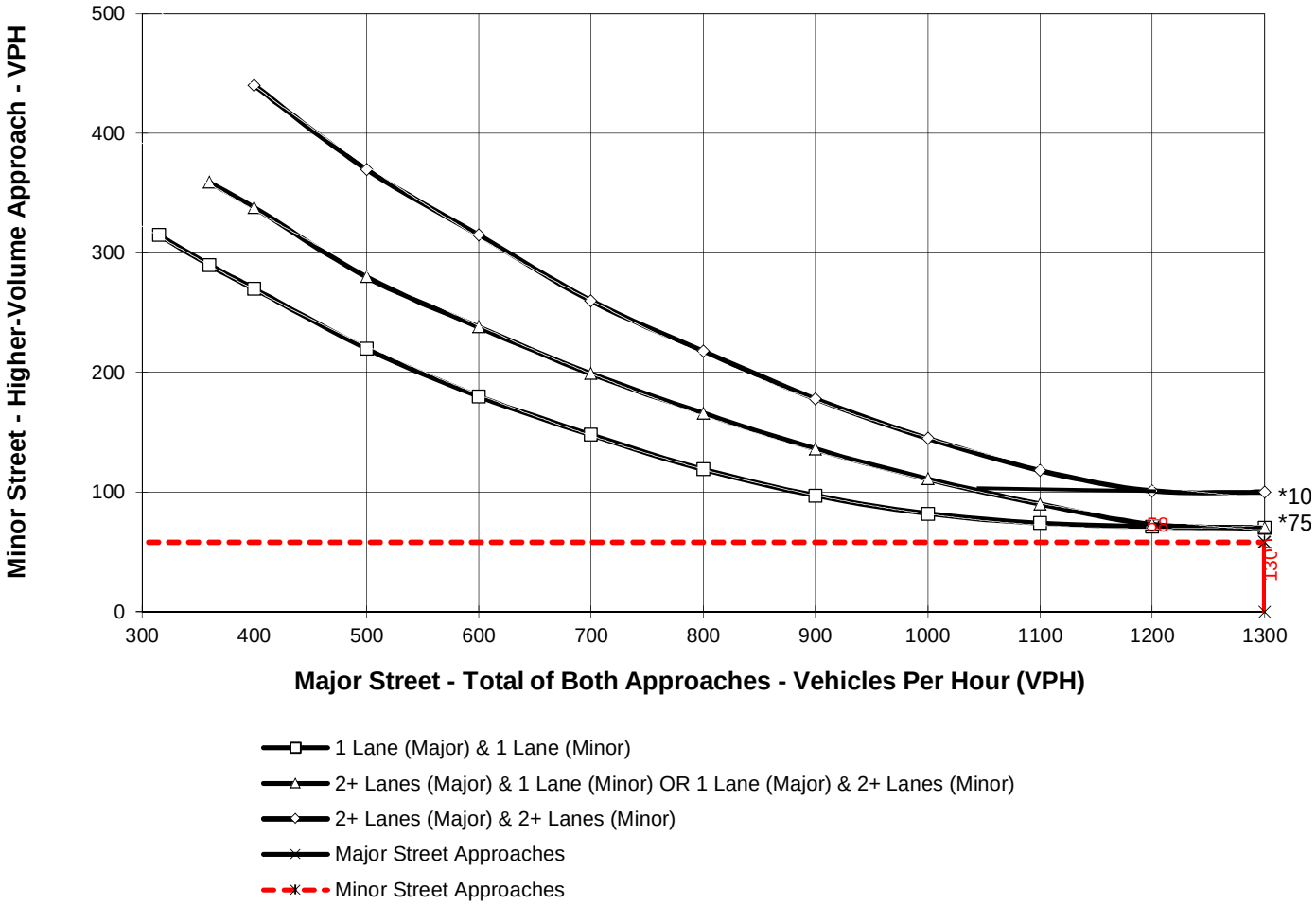
Number of Approach Lanes Major Street = **1**

Minor Street Name = **PROJECT ACCESS**

High Volume Approach (VPH) = **58**

Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

November 2003

WARRANT 3, PEAK HOUR (70% FACTOR)
(Rural Areas)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING PLUS PROJECT PM**

Major Street Name = **GRAND AVE (SR-17)**

Total of Both Approaches (VPH) = **1805**

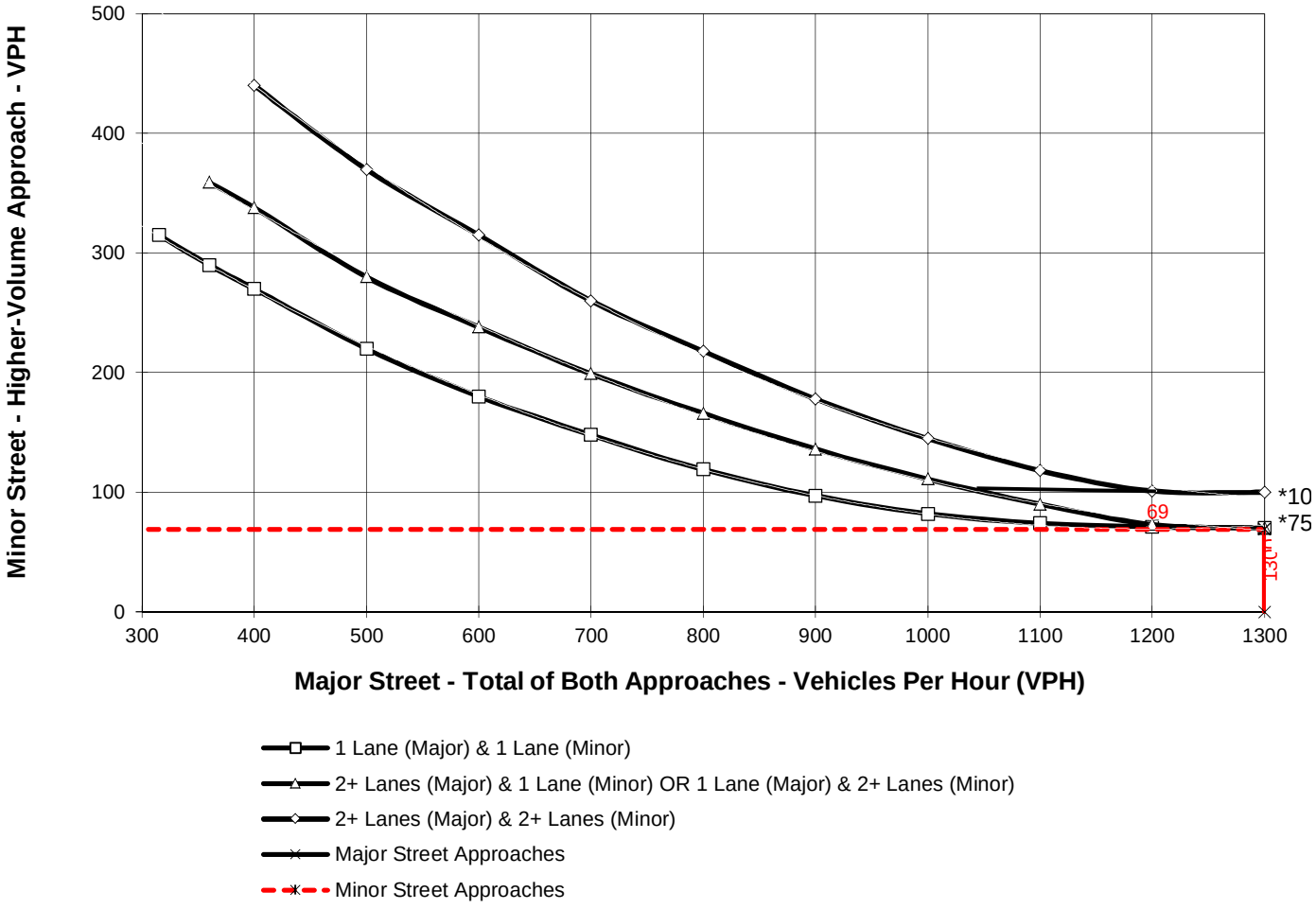
Number of Approach Lanes Major Street = **1**

Minor Street Name = **PROJECT ACCESS**

High Volume Approach (VPH) = **69**

Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

November 2003

2012 Edition

WARRANT 3, PEAK HOUR (70% FACTOR)
(Rural Areas)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OPENING YEAR PLUS PROJECT AM**

Major Street Name = **GRAND AVE (SR-17)**

Total of Both Approaches (VPH) = **1885**

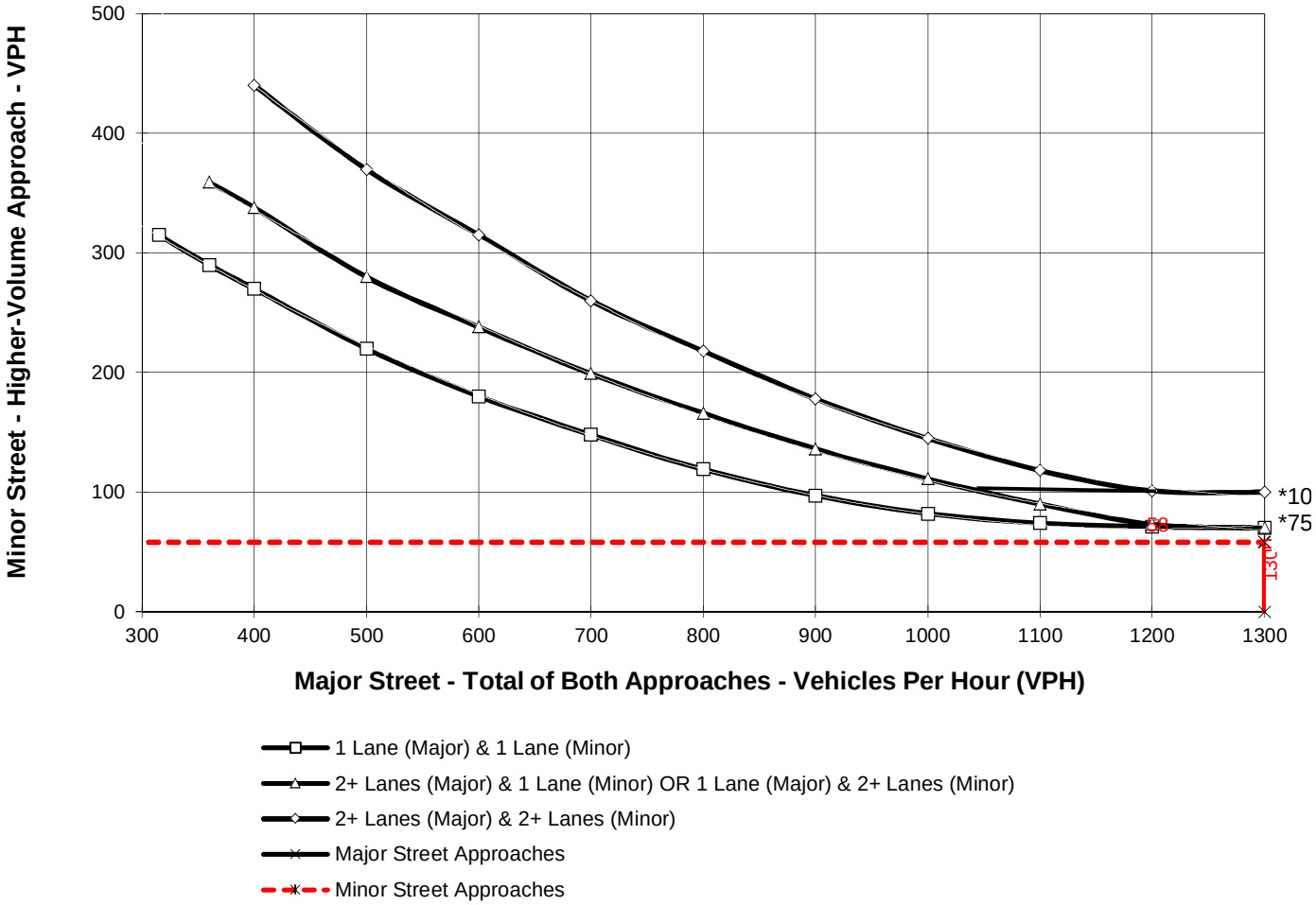
Number of Approach Lanes Major Street = **1**

Minor Street Name = **PROJECT ACCESS**

High Volume Approach (VPH) = **58**

Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

November 2003

2012 Edition

WARRANT 3, PEAK HOUR (70% FACTOR)
(Rural Areas)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OPENING YEAR PLUS PROJECT PM**

Major Street Name = **GRAND AVE (SR-17)**

Total of Both Approaches (VPH) = **1908**

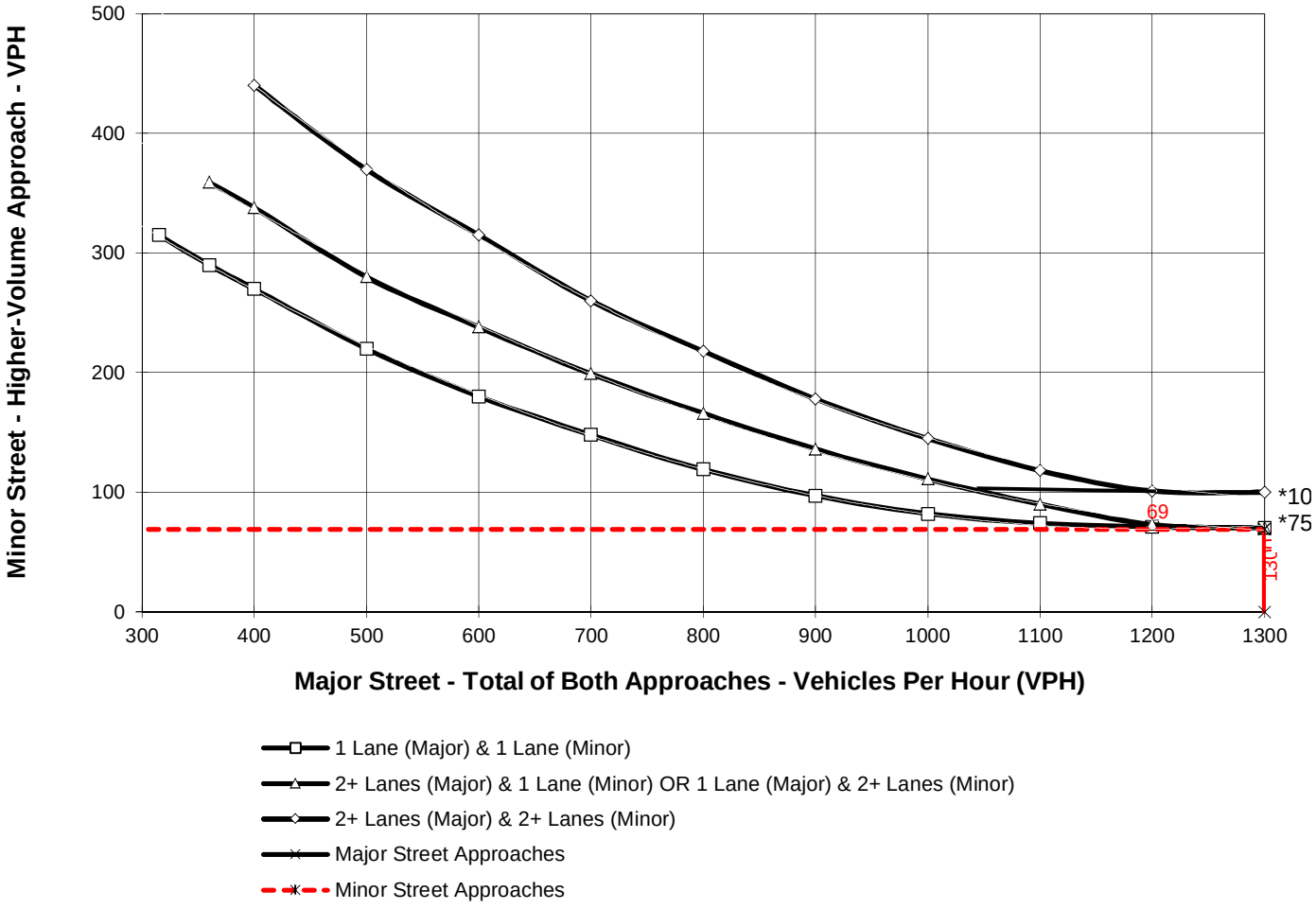
Number of Approach Lanes Major Street = **1**

Minor Street Name = **PROJECT ACCESS**

High Volume Approach (VPH) = **69**

Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

November 2003