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Sage / Unser Comm. Development

(Southeast Corner)

Access Justification Study

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Presented to:

City of Albuquerque
Transportation Development Section

Prepared for:

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STUDY PURPOSE

The study is being conducted in conjunction with a request for approval from the City of Albuquerque to install a right-turn-in, right-turn-out unsignalized access along the east side of Unser Blvd. approximately 500 feet south of Sage Rd. (centerline to centerline). The purpose of this study is to provide sufficient analysis for evaluation by the City of Albuquerque so that a determination can be made regarding whether or not it is feasible and beneficial to apply for approval of the new access point on Unser Blvd. as previously described and as shown graphically in this study. Since Unser Blvd. is a Limited Access Arterial Roadway in the City of Albuquerque on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area, then approval of the new access point by the Transportation Coordinating Committee (T.C.C.) will be required.

STUDY PROCEDURES

The scope of this study is described as follows:

1) The following data from the Sage / Unser Commercial Development (SE Corner) Traffic Impact Study will be utilized in this Access Study:
   a) Trip Generation Rates for the proposed Sage / Unser Commercial Development (SE Corner)
   b) Trip Distribution Model for the proposed Sage / Unser Commercial Development (SE Corner)
   c) Projected AM and PM Peak Hour 2014 volumes and 2030 volumes associated with the Sage / Unser BUILD Conditions.
2) The Mid-Region Council of Governments' (MRCOG) 2030 transportation model was used as a basis to forecast 2030 turning movements volumes at the intersections analyzed in this study using the Fratar method.
3) Analysis of three conditions are presented in this study to quantify the impact of implementation of a new right-turn-in, right-turn-out driveway on the east side of Unser Blvd. between Arenal Rd. and Sage Rd. The impact is quantified by calculating the levels-of-service and delays at Sage Rd. / Coors Blvd., Sage Rd. / Driveway "B", Sage Rd. / Driveway "C", and Unser Blvd. / Driveway "D" for Case "N" (without the proposed right-turn-in, right-turn-out Driveway "D"), Case "Y1" (with the proposed right-turn-in only Driveway "D"), and Case Y2 (with the proposed right-turn-in, right-turn-out Driveway "D"). The comparison of the three Cases will be the basis upon which the impact of the new right-turn-in, right-turn-out driveway is determined.

GENERAL AREA CHARACTERISTICS

The proposed development plan is located along the east side of Unser Blvd. south of Sage Rd. as shown on the Vicinity Map on Page A-1 of the Appendix of this report. The property in the vicinity of this site is a mix of residential with some commercial along Unser Blvd. especially near major intersections. This project is located in the midst of a relatively active development area.

AREA STREET NETWORK

The entire length of Unser Blvd. is classified as a Limited Access Principal Arterial Roadway on the Long Range Roadway System Plan for the Albuquerque Urban Area (See Page A-3 in the Appendix). There are existing approved access points on Unser Blvd. at Arenal Rd. and at Sage Rd. Arenal Rd. / Unser Blvd. and Sage Rd. / Unser Blvd. are currently signalized intersections. There is one other approved access break between Arenal Rd. and Sage Rd. on the west side of Unser Blvd. for the Sage / Unser Commercial Development (SW Corner). The proposed new access will be approximately 500 feet south of Sage Rd. (centerline to centerline) The east side of Unser Blvd. between Arenal Rd. and Sage Rd. is largely developed as a residential subdivision. The subject tract is a vacant 10-acre tract on the southeast corner of Sage / Unser zoned C-1 in the City of Albuquerque city limits. The 10-acre tract has a frontage along Sage Rd. of approximately 900 feet and a frontage along Unser Blvd. of approximately 500 feet.

Sage Rd. is classified as a Minor Arterial Street on the Long Range Roadway Plan for the Albuquerque Urban Area. Currently, Sage Rd. is a two lane rural type of roadway along the frontage of this project. Sage Rd. will ultimately be a four-lane urban roadway with raised medians.

The existing Sage Rd. / Unser Blvd intersection is signalized.

PROPOSED DEVELOPMENT

The subject commercial development plan consists of approximately 8,220 S.F. of fast food restaurants in 2 locations, approximately 29,170 S.F. of shopping center, a 12 position gas station w/market, and a drive-in bank w/4 lanes. The associated trip generation rates are summarized in the following table:

Sage / Unser Commercial Development (SE Corner)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Gasoline / Service Station w/ Convenience Market (945)	12	1,953	61	61	80	80
Fast Food Restaurant w/ Drive-Thru Window (934)	4.38	2,173	110	106	77	71
Fast Food Restaurant w/ Drive-Thru Window (934)	3.84	1,905	97	93	68	62
Drive-In Bank (912)	4	557	22	16	54	56
Shopping Center (820)	29.17	3,049	45	29	137	142
Subtotal		**9,637**	**335**	**305**	**416**	**411**

NO pass by?

See the conceptual site development plan on Page A-2 in the Appendix of this report to acquire more detailed information about the proposed development. This site plan is somewhat preliminary at this point in time and is subject to some changes as progress takes place in the design process. The plan should, however, provide a reliable basis upon which to analyze the impact of the development on the adjacent transportation system and provide guidelines for mitigating the impact and establishing access criteria. The conceptual site plan as it is shown in this report proposes four (4) access points into the site. Three access driveways are off of Sage Rd. The middle access (Driveway "B") is proposed as a full access unsignalized driveway. The eastern driveway (Driveway "A") is proposed to be a right-turn-in, right-turn-out only unsignalized driveway. The western driveway (Driveway "C") is proposed to be a right-turn-in, right-turn-out only unsignalized driveway. The fourth access point (Driveway "D") is off of Unser Blvd. and is proposed to be a right-turn-in, right-turn-out only unsignalized driveway.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates utilized in this study for the short term analysis (2014) were those from the Traffic Impact Study for the proposed Sage / Unser Commercial Development (SE Corner) prepared in February, 2010. It utilized annual growth rates derived from the Mid-Region Council of Governments' (MRCOG) regional model based on the 2030 data set. The 2030 analysis utilized growth rates consistent with the MRCOG's 2030 data set forecast link volumes for the AM and PM Peak Hours. AM and PM Peak Hour Link Volumes were taken from the current MRCOG data set for the years 2004 and 2030 to determine the growth rate used to project the 2030 AM and PM Peak Hour NO BUILD Volume utilized in this access study.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2014 and 2030 BUILDOUT

The calculated growth rates from the Traffic Impact Study were applied to the recent AM and PM Peak Hour Volumes acquired for the Sage / Unser Commercial Development Traffic Impact Study to establish the 2014 background traffic volumes. Additionally, adjustments were made to the background volumes to account for trips generated by the Commercial Development located at the southwest corner of Sage Rd. / Unser Blvd. To these volumes, the generated trips based on implementation of the proposed Sage / Unser Commercial Development (SE Corner) were added to obtain the 2014 BUILD volumes for the intersection analyses.

The calculated growth rates from the MRCOG model were applied to the recent AM and PM Peak Hour Volumes acquired for the Sage / Unser Commercial Development (SE Corner) TIS to establish the forecast 2030 background traffic volumes. Additionally, adjustments were made to the background volumes to account for the trips generated by the other proposed development mentioned above to obtain 2030 BUILD volumes for the intersection analysis.

INTERSECTION CAPACITY ANALYSIS

Signalized and unsignalized intersection capacity analyses were conducted utilizing Synchro, version 7 (Build 763) computer modeling software. Synchro software deviates from the 2000 Highway Capacity Manual methods in several areas. The results obtained using Synchro software are generally deemed by the State to be close to those based on the 2000 Highway Capacity Manual in most cases.

All analyses performed in this study utilized the 2014 and the 2030 BUILD Volumes.

The results of the 2014 and 2030 BUILD analyses are summarized in the following sections - *Results and Discussion of Analyses.*

RESULTS AND DISCUSSION OF ANALYSES

Level-of-Service Analysis

There were three Cases analyzed in this study to provide a comparison upon which to evaluate the impact of implementing a right-turn-in, right-turn-out driveway on the east side of Unser Blvd. approximately 500 feet south of Sage Rd. Case "N" is the evaluation of the condition if no access was permitted on Unser Blvd. between Sage Rd. and Arenal Rd. Case "Y1" is the evaluation of the conditions if a new right-turn-in only unsignalized driveway was implemented approximately 500 feet south of Sage Rd. on the east side of Unser Blvd. only. Case "Y2" is the evaluation of the conditions if a new right-turn-in, right-turn-out unsignalized driveway was implemented approximately 500 feet south of Sage Rd. on the east side of Unser Blvd.

In these Cases, the analysis of the intersections of Sage Rd. / Unser Blvd., Sage Rd. / "Driveway "A", Sage Rd. / Driveway "B", and Driveway "D" / Unser Blvd. are provided and the results compared to measure the impact of the new access. There is no impact to Driveway "C" resulting from the new access on Unser Blvd.

This report analyzed Sage Rd. / Unser Blvd. as a signalized intersection, and the driveways as unsignalized intersections.

Following is a summary of the conditions associated with each of the three Cases analyzed in this study:

Sage Rd. / Unser Blvd.	2014 Conditions			2030 Conditions		
	Case "N"	Case "Y1"	Case "Y2"	Case "N"	Case "Y1"	Case "Y2"
AM Peak Hour	C – 31.6	C – 31.8	C – 32.7	D – 38.3	D – 38.5	D – 41.9
PM Peak Hour	D – 37.3	D – 38.1	D – 41.3	F – 90.8	F – 92.9	F – 103.9

The impact of the proposed new access on Unser Blvd. to the intersection of Sage Rd. / Unser Blvd. is insignificant. The levels-of-service are the same for all three cases for the AM and PM Peak Hour 2014 and 2030 BUILD conditions. The change is in the delay, which increases at the intersection with Case "N", Case "Y1", and Case "Y2", respectively. The Case "Y2" 2030 AM and PM Peak Hour Conditions experience the highest delays at the intersection.

By implementing dual northbound and southbound lefts at the intersection, both the delays and the levels-of-service at the intersection are improved for all cases and specifically for the proposed Case "Y2" as demonstrated in the table below.

Sage Rd. / Unser Blvd.	2030 Conditions (Mitigated) w/Dual NB/SB Left Turn Lanes		
	Case "N"	Case "Y1"	Case "Y2"
AM Peak Hour	D – 38.7	D – 38.9	D – 40.4
PM Peak Hour	E – 70.1	E – 71.6	E – 77.6

The preceding tables demonstrate that the implementation of the proposed new driveway (whether right-in only or right-turn-in, right-turn-out) provides a minor impact to the performance of Unser Blvd. by slightly increasing the average intersection delays at Sage Rd.

/ Unser Blvd. The magnitude of the increase in average delay is insignificant with the exception of the 7.5 second delay realized during the 2030 PM Peak Hour period.

Consideration of average delays alone does not accurately represent the conditions at the signalized intersection. The HCM 2000 methodology calculates the average delay as the weighted average of the calculated delay of each turning movement at the intersection. Therefore, by removing or significantly reducing a low-delay turning movement, the average delay will be increased while the total intersection delay is decreased. That is the case concerning the intersection of Sage Rd. / Unser Blvd. Implementation of the right-in only driveway on Unser Blvd. south of Sage Rd. will significantly reduce the volume of northbound right turn traffic at Sage Rd. / Unser Blvd. The preceding tables indicate that the average delay at the intersection will be marginally increased. However, the tables on the following pages demonstrate that the total intersection delay (vehicle-seconds) will actually be reduced as a result of the approval of a right-in only driveway at the southwest corner of this project.

While it is usually important to stress the calculated average signalized intersection delays when evaluating the viability of a new access, in this case it is important to consider the total intersection delay (in vehicle-seconds) to realize that the requested new access does provide a definable benefit to the intersection of Sage Rd. / Unser Blvd., and thus, to the Unser Blvd. corridor.

The following tables summarize the resulting total delay at the intersection of Sage Rd. / Unser Blvd. (in vehicle-seconds of delay) for each Case considered:

Total Delay Worksheet (Sage / Unser - BUILD Condition)

Sage / Unser	2014 AM Peak Hour (Existing Geometry)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	53	43.4	2,300	53	43.4	2,300	53	42.1	2,231
Thru	528	37.1	19,589	528	37.1	19,589	528	46.2	24,394
Right	160	22.6	3,616	160	22.2	3,552	160	23	3,680
Westbound									
Left	236	43.6	10,290	236	43.6	10,290	236	47.5	11,210
Thru	231	23.1	5,336	231	23.1	5,336	181	25.5	4,616
Right	77	15.9	1,224	77	15.6	1,201	26	18.6	484
Northbound									
Left	140	26.6	3,724	140	24.1	3,374	190	28	5,320
Thru	602	31.8	19,144	602	32.2	19,384	653	30.9	20,178
Right	398	33.8	13,452	286	35.7	10,210	286	26.3	7,522
Southbound									
Left	152	21.9	3,329	152	21.5	3,268	152	21.3	3,238
Thru	651	31.5	20,507	651	32.5	21,158	651	29.4	19,139
Right	27	17.8	481	27	18.1	489	27	16.5	446
Vehicle Seconds of delay			**102,991**			**100,151**			**102,456**

Sage / Unser	2014 PM Peak Hour (Existing Geometry)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	123	41.5	5,105	123	41.5	5,105	123	44.5	5,474
Thru	462	44.2	20,420	462	44.2	20,420	462	55.7	25,733
Right	171	24.5	4,190	171	24.5	4,190	171	23	3,933
Westbound									
Left	498	57.9	28,834	498	57.9	28,834	498	49.9	24,850
Thru	627	32.7	20,503	627	32.7	20,503	559	30.6	17,105
Right	111	19.1	2,120	111	19.1	2,120	41	18.5	759
Northbound									
Left	257	52.3	13,441	257	52.5	13,493	325	53.7	17,453
Thru	561	31.9	17,896	561	32.9	18,457	630	31.1	19,593
Right	225	24.3	5,468	76	35	2,660	86	36	3,096
Southbound									
Left	160	18.7	2,992	160	18.7	2,992	160	20.8	3,328
Thru	868	36.9	32,029	868	36.9	32,029	868	49.1	42,619
Right	79	17.4	1,375	79	17.4	1,375	79	19.7	1,556
Vehicle Seconds of delay			**154,372**			**152,177**			**165,499**

Total Delay Worksheet (Sage / Unser - BUILD Condition)

Sage / Unser	2030 AM Peak Hour (w/Single NB / SB Left Turn Lanes)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	55	52.7	2,899	55	52.7	2,899	55	52.7	2,899
Thru	576	56.5	32,544	576	56.5	32,544	576	68.4	39,398
Right	178	28.9	5,144	178	28.9	5,144	178	28.2	5,020
Westbound									
Left	415	56.1	23,282	415	57.3	23,780	415	70.9	29,424
Thru	480	30.4	14,592	480	30.6	14,688	430	32.4	13,932
Right	103	20.3	2,091	103	20.4	2,101	52	21.4	1,113
Northbound									
Left	209	49.6	10,366	209	49.6	10,366	259	63.9	16,550
Thru	824	33.1	27,274	824	32.8	27,027	875	30.7	26,863
Right	544	19.8	10,771	432	17.1	7,387	432	16.2	6,998
Southbound									
Left	183	33.8	6,185	183	33.4	6,112	183	31.6	5,783
Thru	909	40.1	36,451	909	39.7	36,087	909	38.6	35,087
Right	33	20.9	690	33	20.8	686	33	20.5	677
Vehicle Seconds of delay			**172,289**			**168,822**			**183,743**

Sage / Unser	2030 AM Peak Hour (w/Dual NB / SB Left Turn Lanes)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	55	52.7	2,899	55	52.7	2,899	55	52.7	2,899
Thru	576	56.5	32,544	576	56.5	32,544	576	60.8	35,021
Right	178	31.5	5,607	178	28.9	5,144	178	30.5	5,429
Westbound									
Left	415	56.1	23,282	415	57.3	23,780	415	57.3	23,780
Thru	480	30.4	14,592	480	30.6	14,688	430	30.4	13,072
Right	103	20.8	2,142	103	20.9	2,153	52	20.6	1,071
Northbound									
Left	209	65.1	13,606	209	58.1	12,143	259	63.9	16,550
Thru	824	32	26,368	824	31.8	26,203	875	32.3	28,263
Right	544	19.6	10,662	432	16.8	7,258	432	16.4	7,085
Southbound									
Left	183	58.4	10,687	183	58.4	10,687	183	58.4	10,687
Thru	909	34.5	31,361	909	35.4	32,179	909	36.1	32,815
Right	33	18.9	624	33	19.3	637	33	19.6	647
Vehicle Seconds of delay			**174,373**			**170,313**			**177,317**

Total Delay Worksheet (Sage / Unser - BUILD Condition)

Sage / Unser	2030 PM Peak Hour (w/Single NB / SB Left Turn Lanes)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	129	108.2	13,958	129	108.2	13,958	129	79.9	10,307
Thru	505	175.9	88,830	505	175.9	88,830	505	175.9	88,830
Right	201	35.3	7,095	201	35.3	7,095	201	33	6,633
Westbound									
Left	474	160.2	75,935	474	160.2	75,935	474	192.4	91,198
Thru	583	58.6	34,164	583	58.6	34,164	515	57	29,355
Right	108	31.8	3,434	108	31.8	3,434	38	31.8	1,208
Northbound									
Left	457	212.1	96,930	457	212.1	96,930	525	230.3	120,908
Thru	835	24.9	20,792	835	24.9	20,792	904	25.5	23,052
Right	286	11.6	3,318	147	10.4	1,529	147	10.5	1,544
Southbound									
Left	217	23.1	5,013	217	23.1	5,013	217	25.7	5,577
Thru	1409	92.5	130,333	1409	92.5	130,333	1409	111	156,399
Right	111	21.3	2,364	111	21.3	2,364	111	21.9	2,431
Vehicle Seconds of delay			**482,164**			**480,375**			**537,440**

Sage / Unser	2030 PM Peak Hour w/Dual NB / SB Left Turn Lanes)								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	129	78.9	10,178	129	79.9	10,307	129	79.9	10,307
Thru	505	123.9	62,570	505	123.9	62,570	505	147.6	74,538
Right	201	38.5	7,739	201	38.5	7,739	201	37.7	7,578
Westbound									
Left	474	112.8	53,467	474	112.8	53,467	474	134.1	63,563
Thru	583	50.8	29,616	583	50.8	29,616	515	50.4	25,956
Right	108	29.6	3,197	108	29.6	3,197	38	29.7	1,129
Northbound									
Left	457	120.2	54,931	457	120.2	54,931	525	129.7	68,093
Thru	835	28.4	23,714	835	28.4	23,714	904	27.8	25,131
Right	286	13.1	3,747	147	11.7	1,720	147	11.3	1,661
Southbound									
Left	217	60.8	13,194	217	60.8	13,194	217	60.8	13,194
Thru	1409	76.6	107,929	1409	76.6	107,929	1409	76.6	107,929
Right	111	19.7	2,187	111	19.7	2,187	111	19.6	2,176
Vehicle Seconds of delay			**372,468**			**370,571**			**401,254**

Generally speaking, there is a two thousand to four thousand vehicle-second reduction in total delay at the intersection of Sage Rd. / Unser Blvd. realized by implementation of a new right-turn-in only driveway on the east side of Unser Blvd. south of Sage Rd. When comparing the No Access condition with the 'Y2' condition, there is generally in increase in overall total delay at the intersection of Sage Rd. / Unser Blvd. ranging from 3,000 vehicle-seconds to over 55,000 vehicle seconds.

Justification for the right-out movement at the subject driveway cannot be based on either calculated average delay or calculated total delay at the intersection of Sage Rd. / Unser Blvd. Permitting the right turn out movement at the Unser driveway will result in increased northbound thru traffic and left turn traffic.

The recommendation for approval for the right-turn-out movement at the proposed driveway on the east side of Unser south of Sage is based on the findings, conclusions, and recommendations of the Traffic Impact Study for the Sage / Unser Commercial Development prepared in February, 2010 and approved by the City of Albuquerque. The recommendation

to approve the right-turn-out at the new Unser driveway is based on operational and safety issues on Sage Rd. east of Unser. Development of the Sage / Unser Commercial Development absent the right turn out on Unser Blvd. will result in excessively long queues and long delays at the primary full access Driveway "B" on Sage Rd. located approximately 650 feet east of Unser Blvd. (centerline to centerline). As a result, a large volume of traffic exiting the site desiring the travel west on Sage Rd. or north on Unser Blvd. will probably end up turning right (east) on Sage Rd. and then executing a U-Turn to achieve their route. The primary concern with this issue is the safety conditions associated with a large volume of U-Turning traffic on Sage Rd. as well as impatient drivers executing other risky maneuvers to enter onto westbound Sage Rd. or northbound Unser Blvd.

The recommendation for approval of the right-out movement at the new Unser driveway is based on the aforementioned safety and operational (delay) concerns. Approval of a new right-in, right-out driveway will relieve these safety and operational concerns on Sage Rd. east of Unser Blvd.

The operation of the proposed unsignalized intersection (Driveway "A") in this study is summarized in the following table:

	2014 BUILD			2030 BUILD		
	Case "N"	Case "Y1"	Case "Y2"	Case "N"	Case "Y1"	Case "Y2"
Sage Rd. / Driveway "A"						
Minor Street (Driveway "A")						
NB Right – AM Peak Hour	A – 9.3	A – 9.1	A – 9.1	A – 9.4	A – 9.3	A – 9.3
NB Right – PM Peak Hour	A – 8.9	A – 9.0	A – 9.0	A – 9.0	A – 8.9	A – 8.9

Evaluation of the right-turn-in, right-turn-out tee intersection indicates that the intersection will operate at an acceptable level-of-service for all conditions analyzed. The comparison between the three cases demonstrates that Case "Y1" and Case "Y2" will experience lower delays than Case "N". Approval of the new access on Unser Blvd. (whether a right-in only or a right-in, right-out only) will significantly reduce the eastbound right turn volume into Driveway "A". However, the right turn into the driveway will not significantly change the level-of-service / delay since the calculated delay at an unsignalized right-in, right-out driveway determines the delay for the right turn out movement onto the major street only. The volume of eastbound right turning movements into the driveway has very little impact on the delay for the right-turn out.

The operation of the proposed unsignalized intersection (Driveway "B") in this study is summarized in the following table:

	2014 BUILD			2030 BUILD		
	Case "N"	Case "Y1"	Case "Y2"	Case "N"	Case "Y1"	Case "Y2"
Sage Rd. / Driveway "B"						
Major Street (Sage Rd.)						
WB Left – AM Peak Hour	B – 10.5	B – 10.4	B – 10.3	B – 10.6	B – 10.5	B – 10.5
WB Left – PM Peak Hour	A – 9.2	A – 8.8	A – 8.9	A – 9.3	A – 9.2	A – 9.2
Minor Street (Driveway "B")						
NB Left – AM Peak Hour	F – 93.8	F – 84.1	F – 80.9	F - 171	F - 161	E – 41.7
NB Left – PM Peak Hour	F - 209	F - 175	F - 176	F - 246	F - 234	F – 50.2
NB Right – AM Peak Hour	F – 93.8	F – 84.1	F – 80.9	F - 171	F - 161	E – 41.7
NB Right – PM Peak Hour	B – 10.1	A – 9.1	A – 9.1	F - 246	F - 234	F – 50.2

Evaluation of the full access tee intersection (future four legged intersection) indicates that it will operate at an acceptable level-of-service for the westbound left during the 2014 and 2030 AM and PM Peak Hour BUILD Conditions for all cases; however, the northbound left and right turns will experience excessive delays for all conditions and cases analyzed. The comparison between the three cases demonstrates that Case "Y2" will experience lower delays than the other two cases. This intersection will experience general operational issues, such as lengthened queues, excessive delays, and safety issues (northbound left-turn conflicting movements); however, Case "Y2" improves all of these issues over the other two cases. The northbound queue lengths, the number of northbound left turns, and the number of conflicting movements are all reduced by allowing right turns out of Driveway "D" onto Unser Blvd. for vehicles traveling north or west of the site.

The operation of the proposed unsignalized intersection being requested (Driveway "D") in this study is summarized in the following table:

	2014 BUILD			2030 BUILD		
	Case "N"	Case "Y1"	Case "Y2"	Case "N"	Case "Y1"	Case "Y2"
Sage Rd. / Driveway "D"						
Minor Street (Driveway "D")						
WB Right – AM Peak Hour	N/A	N/A	C – 17.5	N/A	N/A	D – 25.7
WB Right – PM Peak Hour	N/A	N/A	C – 17.0	N/A	N/A	C – 24.8

Evaluation of the proposed right-turn-in, right-turn-out tee intersection indicates that the intersection will operate at an acceptable level-of-service for Case "Y2". Case "N" could not be analyzed because in this case Driveway "D" does not exist. Case "Y1" did not yield level-of-service results because the only movement at Driveway "D" would be right turns into the site.

QUEUING

As demonstrated in the drawing on Page A-138 in the Appendix of this report, the effective length of queuing lane for the northbound right turn movement is 275 feet. The 95th percentile queuing length for the 2030 AM Peak Hour condition is 264 feet (see Page A-139 in Appendix). The 95th percentile queuing length for the 2030 PM Peak Hour condition is 72 feet (see Page A-140 in Appendix). Therefore, this report finds that the northbound right turn lane will be of sufficient length to handle the projected 2030 queues.

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7th Edition). Generated Trips were distributed proportionately based on the Population Data Analysis Subzones within a two-mile radius of the proposed development for commercial properties; growth rates of background traffic volumes were established from MRCOG model data (2030 data set); and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual, Special Report 209. The Access Study showed that a decrease in total intersection delay (vehicle-seconds) can be realized by permitting an unsignalized right-turn-in driveway along the east side of Unser Blvd. approximately 500 feet south of Sage Rd. The benefits are realized as a reduction in the operational delays at the Sage Rd. / Unser Blvd. Approval of a westbound right turn out at the new driveway will

provide safety benefits consistent with the findings, conclusions, and recommendations of the Traffic Impact Study for this project. Therefore, this study concludes that there are operational benefits to the intersection of Sage Rd. / Unser Blvd. as a direct result of approval of a right-in only driveway on the east side of Unser Blvd. south of Sage Rd. and a safety related operational benefit to the Sage Rd. corridor as a direct result of approval of a westbound right-out only movement at the same location.

RECOMMENDATIONS

This study finds that the implementation of the new right-turn-in unsignalized access driveway (Driveway "D") located along the east side of Unser Blvd. approximately 500 feet south of Sage Rd. will provide a benefit to the adjacent transportation system by reducing the projected total intersection delay at the intersection of Sage Rd. / Unser Blvd. for the 2030 AM and PM Peak Hour BUILD Conditions associated with the development of the Sage / Unser Commercial Development. Also, implementation of a right-out turning movement at the new driveway (Driveway "D") will provide safety-related operational benefits on the Sage Rd. corridor east of Unser Blvd. Upon that basis, the following recommendations are made:

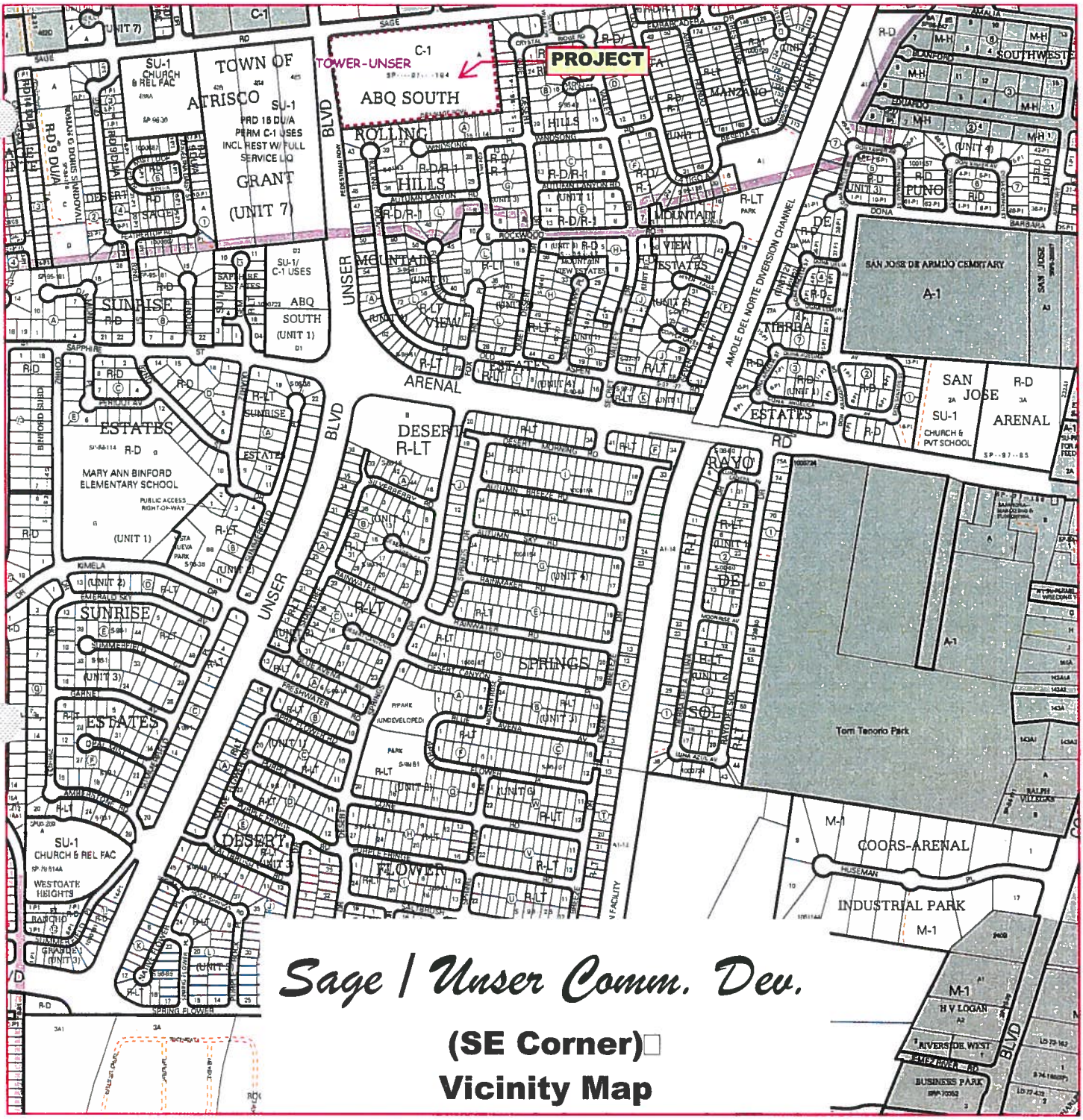
- This Access Study recommends that a new unsignalized right-turn-in, right-turn-out unsignalized access (Driveway "D") be implemented along the east side of Unser Blvd. approximately 500 feet south of Sage Rd for the purpose of providing access to the currently proposed Sage / Unser Commercial Development (SE Corner).
- The new access intersection should be constructed using 25 feet radius curb returns or greater.

- If it is found by reviewing agencies that the proposed right-in, right-out driveway is not acceptable, then this study recommends approval of a right-in-only driveway along the east side of Unser Blvd. approximately 500 feet south of Sage Rd. for the purpose of providing access to the currently proposed Sage / Unser Commercial Development (SE Corner).
- In either case (right-in, right-out or right-in only), a northbound right turn taper lane is recommended at the new Driveway "D". There is not sufficient right-of-way available to construct a full deceleration lane.

Appendix

APPENDIX

Sage / Unser Commercial Development (SE Corner)



Sage / Unser Comm. Dev.

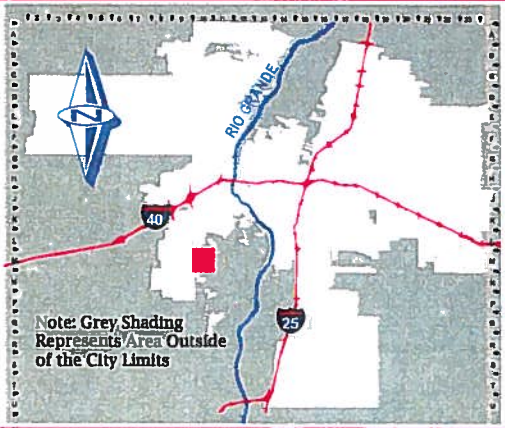
(SE Corner)

Vicinity Map

For more current information and more details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 3/10/2009



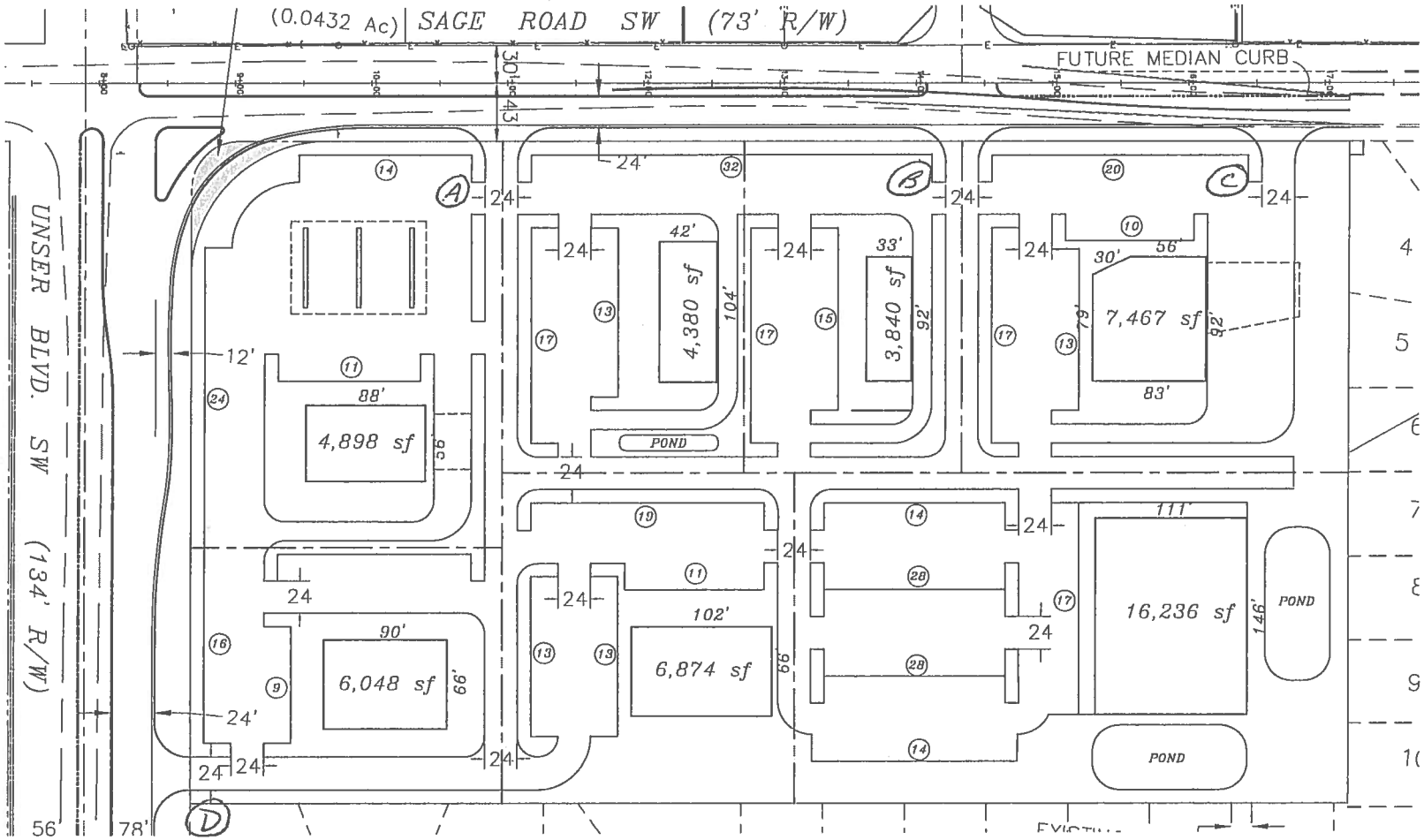
Zone Atlas Page:

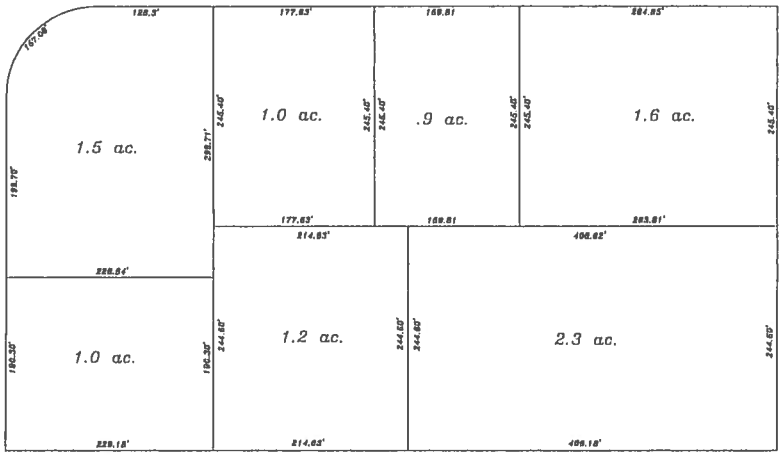
M-10-Z

Selected Symbols

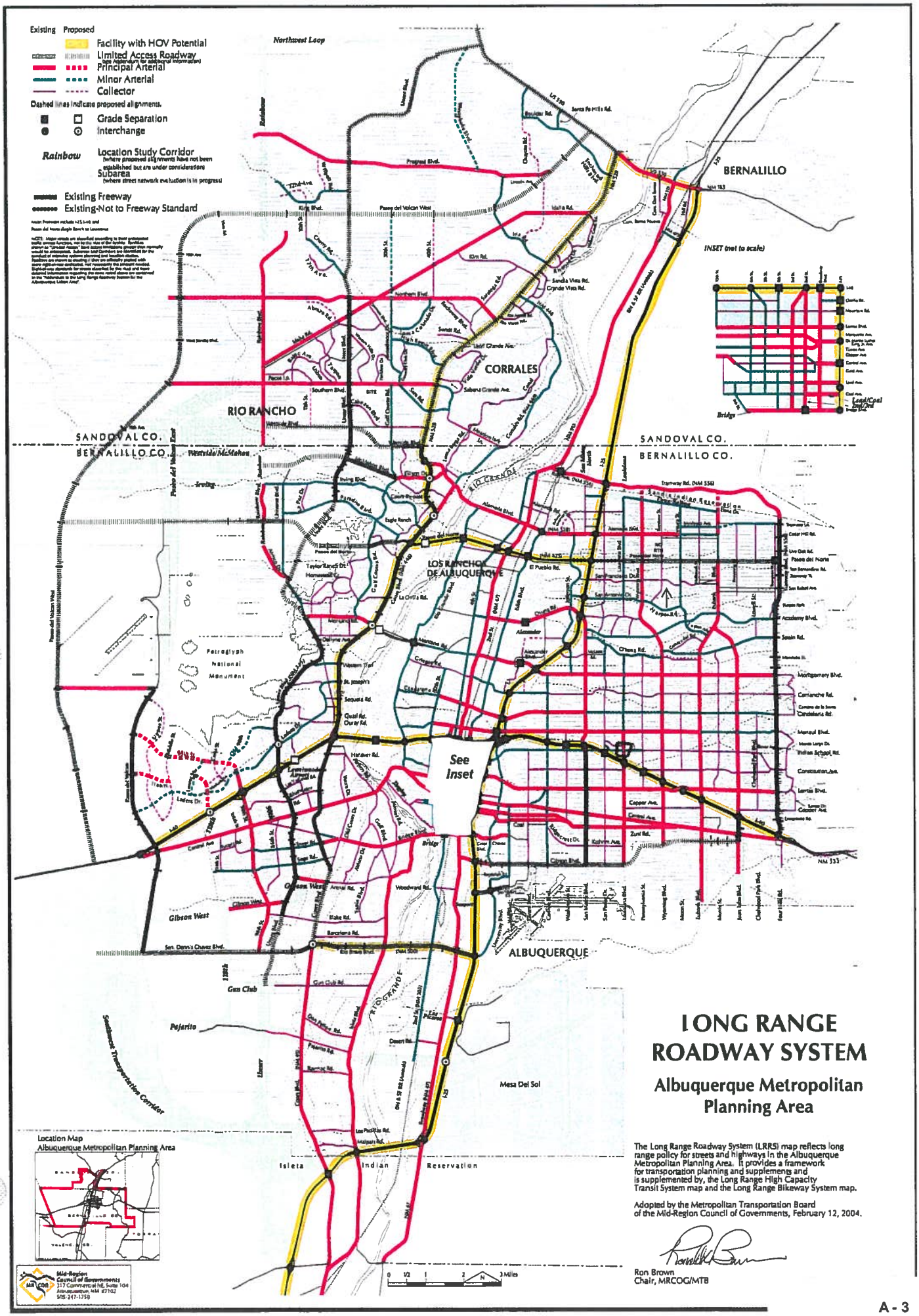
- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet


(0.0432 Ac) SAGE ROAD SW (73' R/W)
FUTURE MEDIAN CURB
UNSER BLVD. SW (134' R/W)
30'
43'
24'
12'
A
B
C
D
4,898 sf
88'
56'
4,380 sf
42'
104'
3,840 sf
33'
92'
7,467 sf
30'
56'
79'
83'
POND
6,048 sf
90'
66'
6,874 sf
102'
16,236 sf
111'
146'
POND
POND
56'
78'


1.5 ac.
1.0 ac.
.9 ac.
1.6 ac.
1.0 ac.
1.2 ac.
2.3 ac.

CONCEPT A



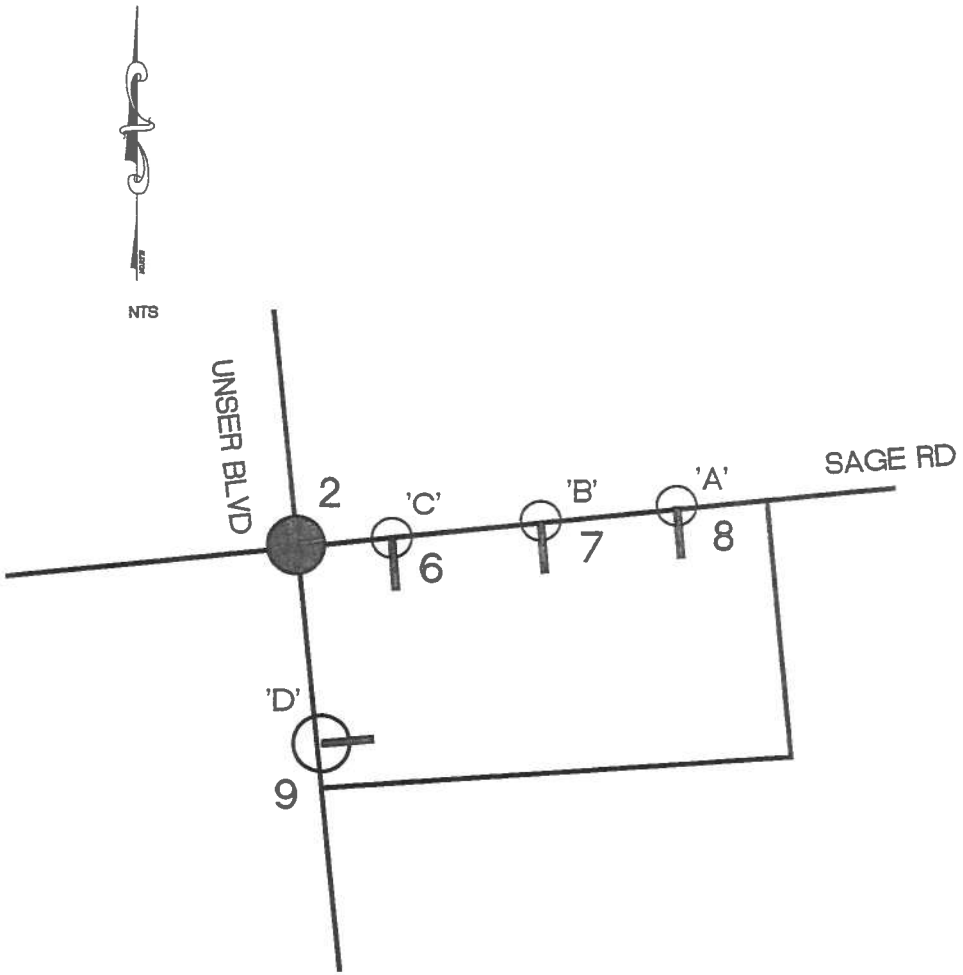
LONG RANGE ROADWAY SYSTEM

Albuquerque Metropolitan Planning Area

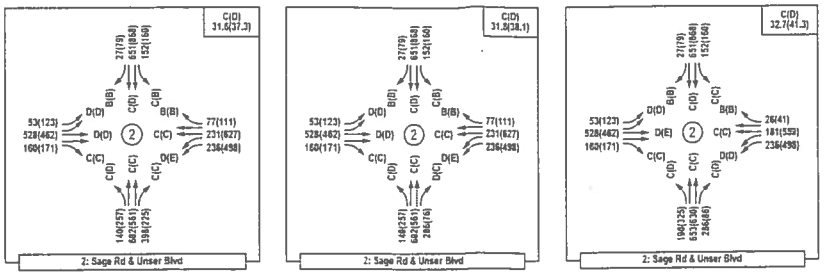
The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by, the Long Range High Capacity Transit System map and the Long Range Bikeway System map.

Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.

Ron Brown
Chair, MRCOG/MTB

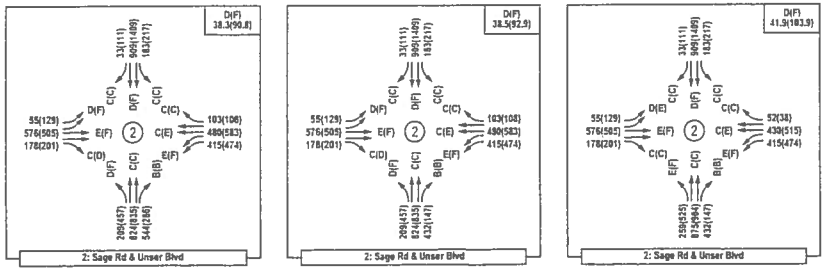


CASE "N" CASE "Y1" CASE "Y2"



2014 (Implementation Year) RESULTS

CASE "N" CASE "Y1" CASE "Y2"



2030 (Horizon Year) RESULTS

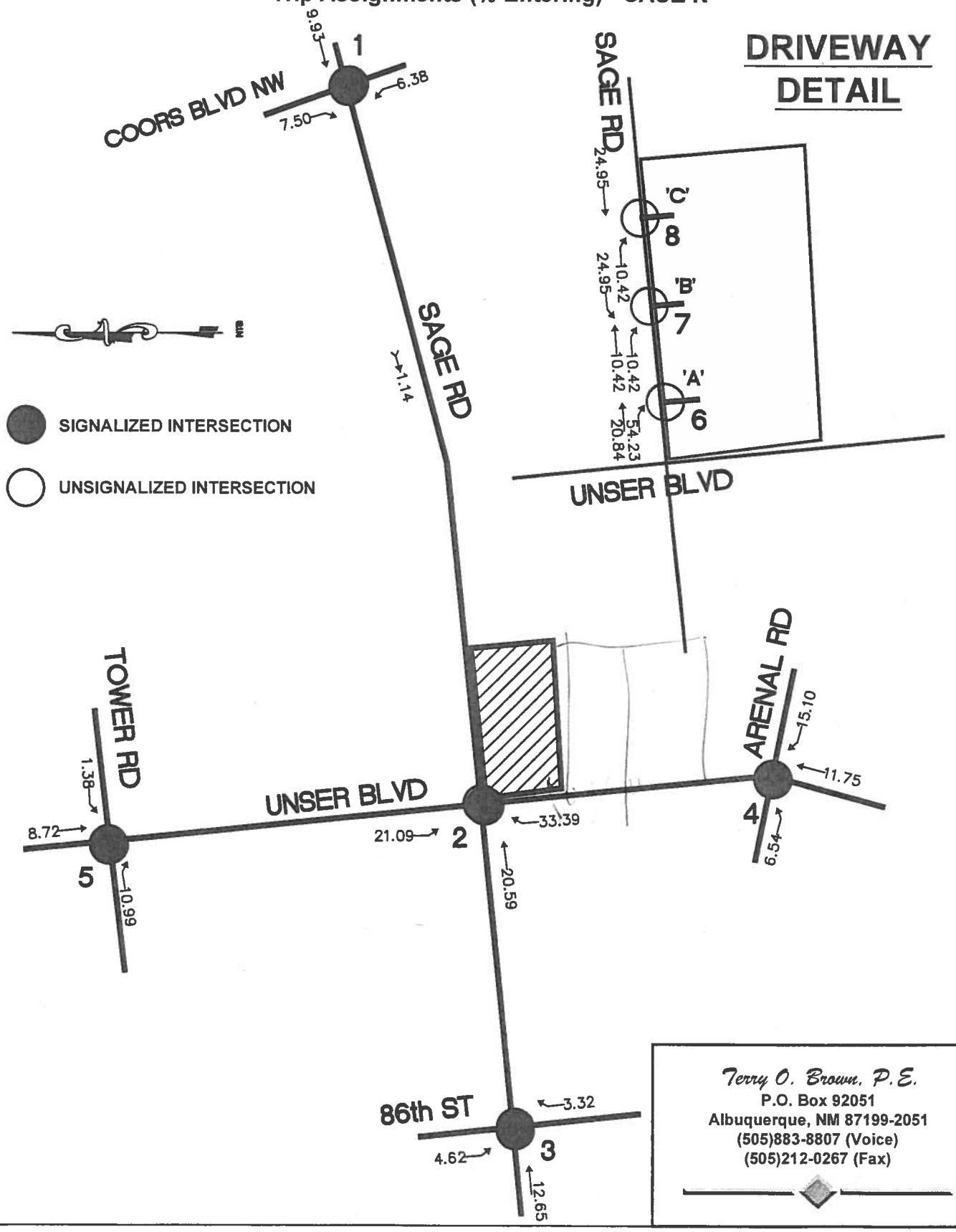
Sage / Unser Commercial Development

SE Corner of Sage Rd. / Unser Blvd.

Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Entering) - CASE N



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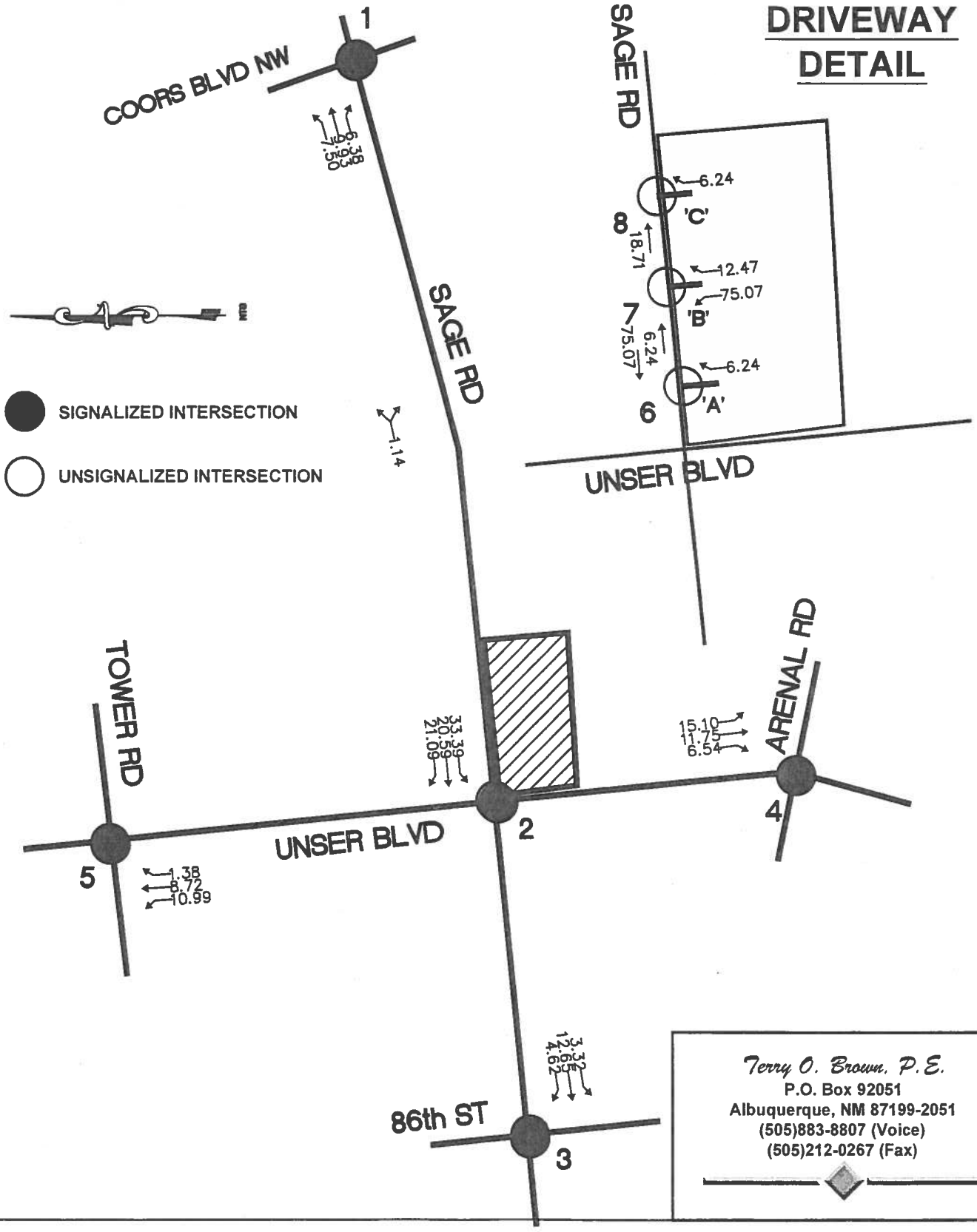
Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Exiting) - CASE N



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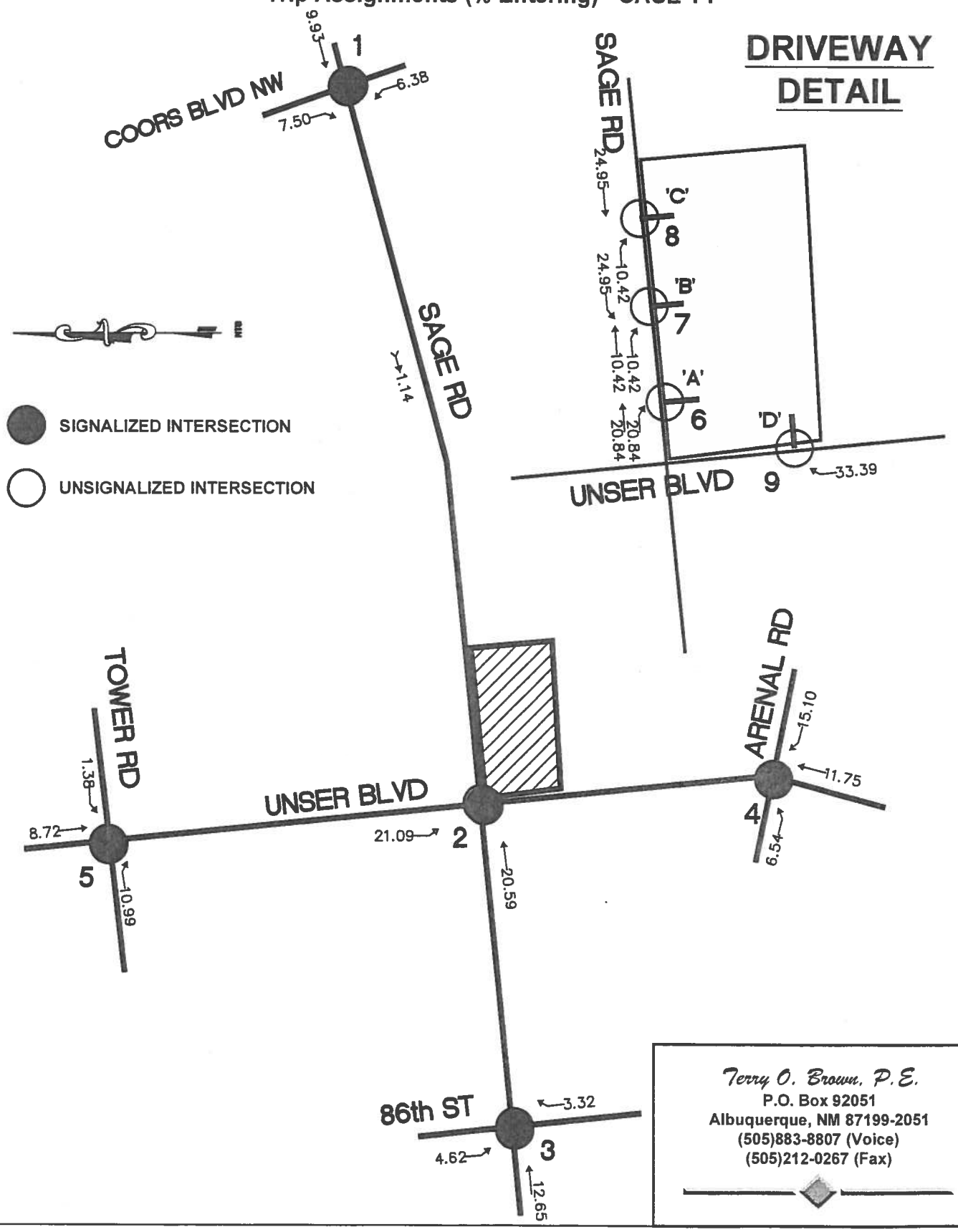
Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Entering) - CASE Y1



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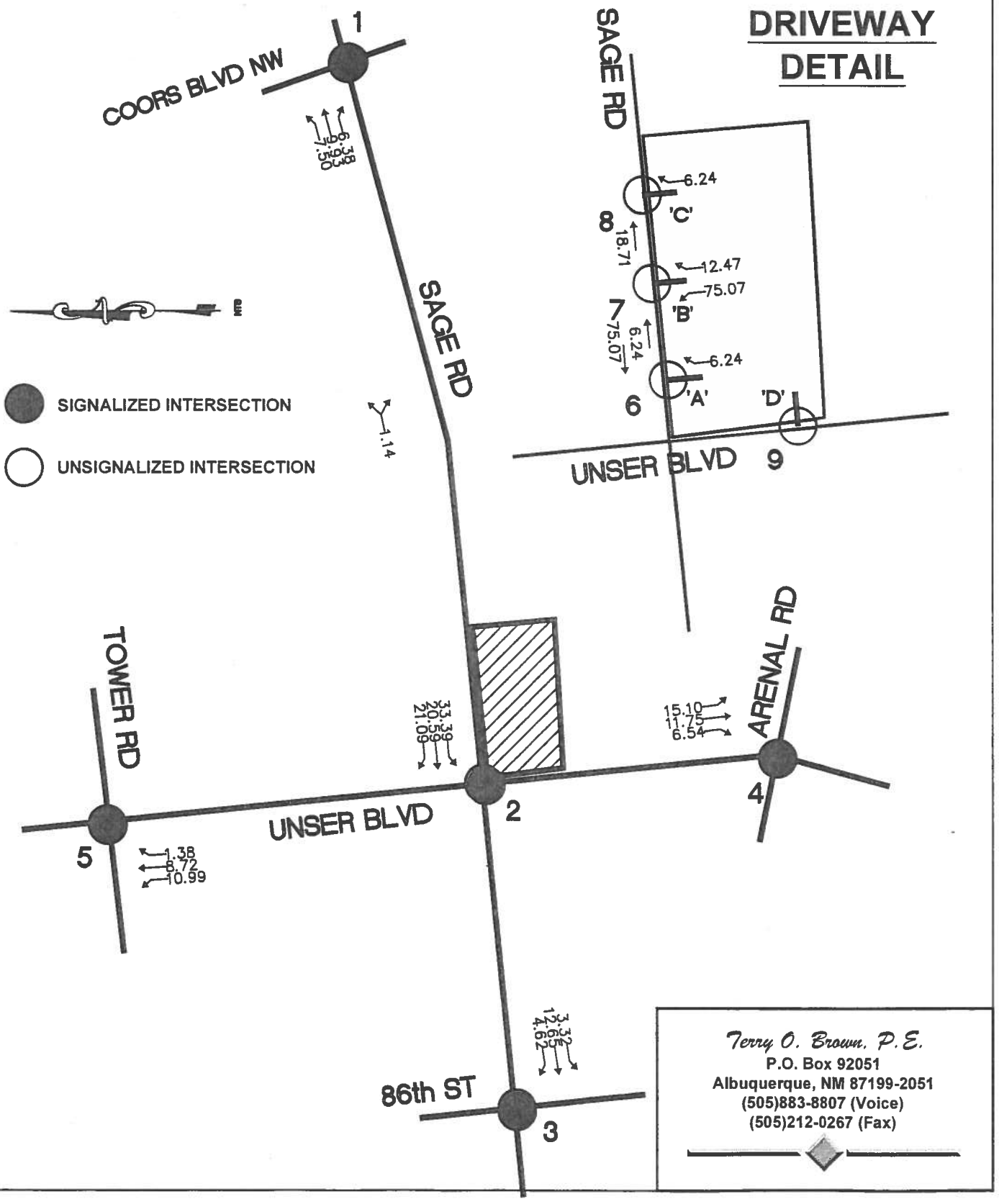
Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Exiting) - CASE Y1



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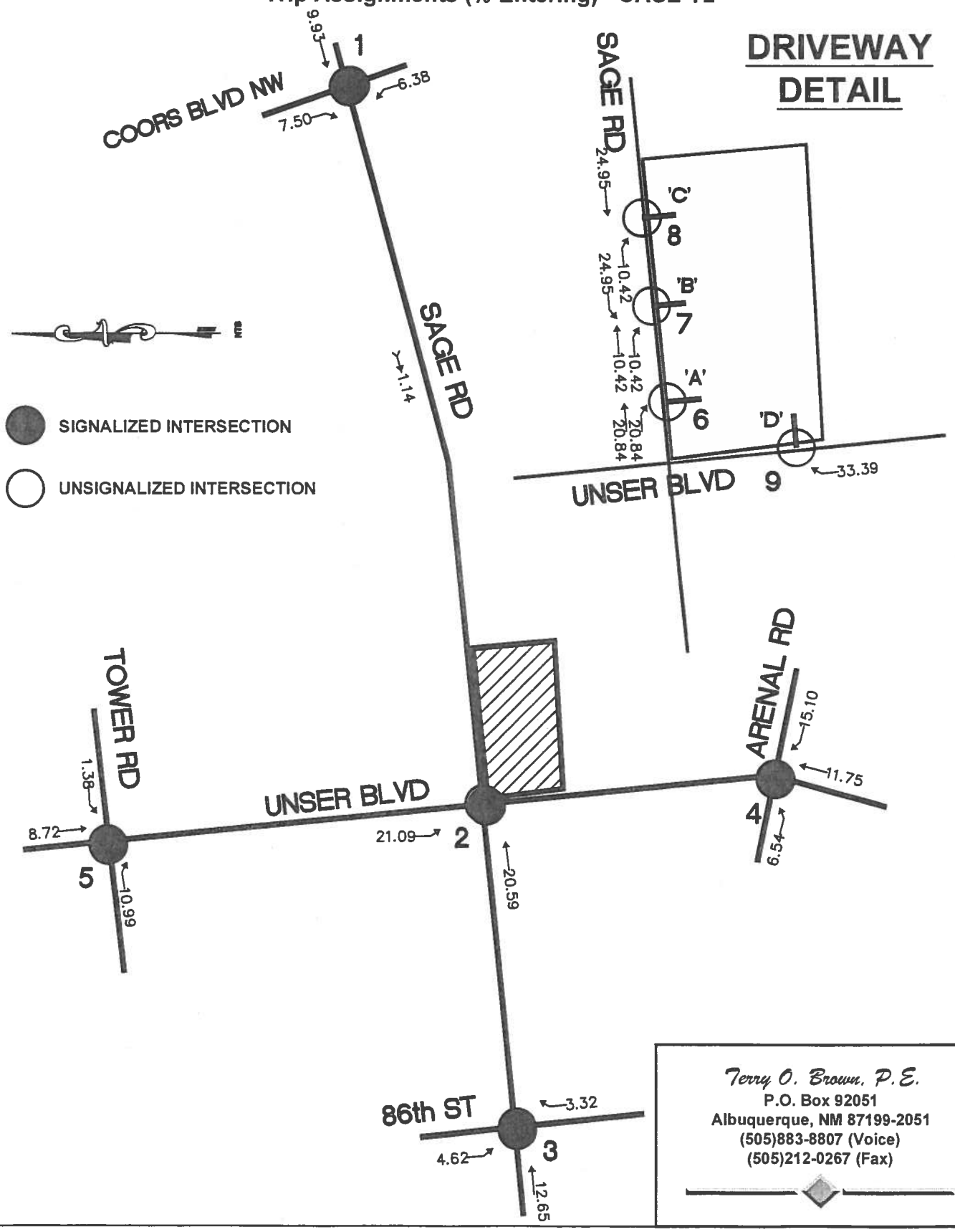
Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Entering) - CASE Y2



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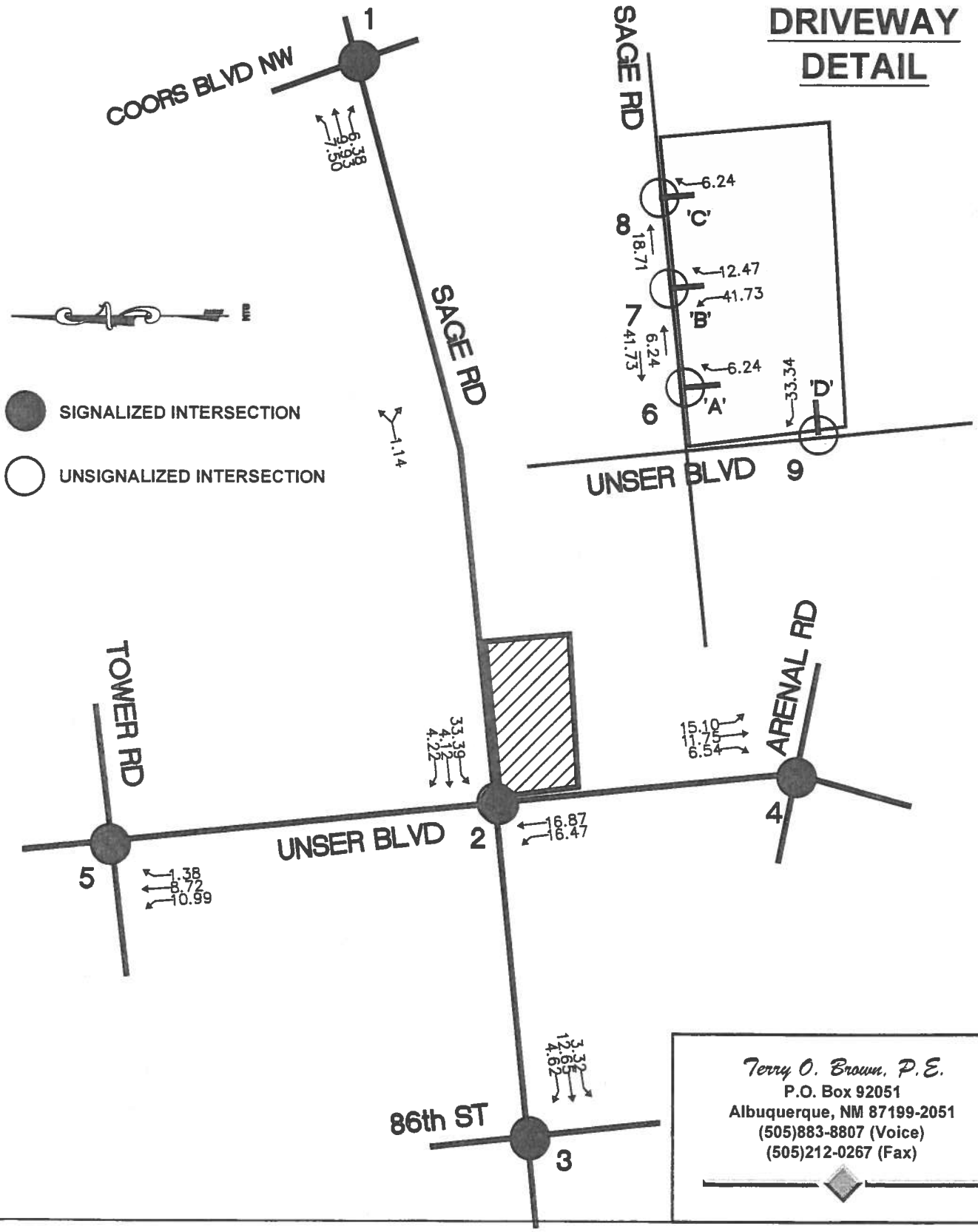
Sage / Unser Comm. Dev.

(SE Corner)

Trip Assignments (% Exiting) - CASE Y2



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Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)

3.7% Truck

	0.78			0.83			0.87			0.76		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	18	361	136	80	110	12	105	337	222	43	361	8
2014 (NO BUILD - A.M.)	*53*	*459*	*160*	*134*	*168*	*13*	*140*	*602*	*286*	*81*	*651*	*27*
2014 (BUILD - A.M.)	***53***	***528***	***160***	***236***	***231***	***77***	***140***	***602***	***398***	***152***	***651***	***27***

	0.93			0.95			0.91			0.95		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	22	182	124	213	386	21	182	249	55	45	426	25
2014 (NO BUILD - P.M.)	*123*	*376*	*171*	*361*	*542*	*24*	*257*	*561*	*86*	*72*	*868*	*79*
2014 (BUILD - P.M.)	***123***	***462***	***171***	***498***	***627***	***111***	***257***	***561***	***225***	***160***	***868***	***79***

Sage Rd / Driveway 'A'

(6)

3.7% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***825***	***182***	***0***	***543***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***576***	***226***	***0***	***1,235***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage Rd / Driveway 'B'

(7)

3.7% Truck

3.0% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
3.0% Truck	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***809***	***35***	***84***	***314***	***0***	***229***	***0***	***38***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
3.0% Truck	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***558***	***43***	***104***	***926***	***0***	***309***	***0***	***51***	***0***	***0***	***0***

Sage Rd / Driveway 'C'

(8)

3.7% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***812***	***35***	***0***	***398***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***566***	***43***	***0***	***1,030***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

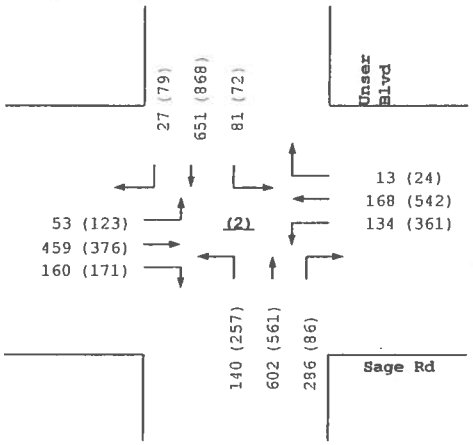
Implementation Year **2014**

Growth Rates	3.50%			3.00%			5.40%			20.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	4	71	27	14	19	2	31	98	65	37	310	7
Subtotal	21	408	154	89	123	13	126	402	265	68	568	13
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***53***	***459***	***160***	***134***	***168***	***13***	***140***	***602***	***286***	***81***	***651***	***27***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	63	64	0	0	112	71	0	0
Total AM Peak Hour BUILD Volumes	**53**	**528**	**160**	**236**	**231**	**77**	**140**	**602**	**398**	**152**	**651**	**27**

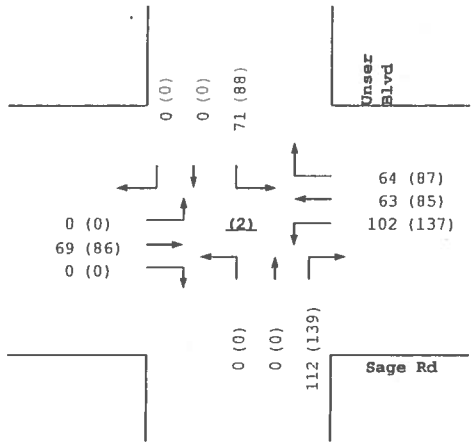
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	4	36	24	36	66	4	53	73	16	38	365	22
Subtotal	25	206	140	237	430	24	217	298	66	70	669	40
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***123***	***376***	***171***	***361***	***542***	***24***	***257***	***561***	***86***	***72***	***868***	***79***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	85	87	0	0	139	88	0	0
Total PM Peak Hour BUILD Volumes	**123**	**462**	**171**	**498**	**627**	**111**	**257**	**561**	**225**	**160**	**868**	**79**

	Entering	Exiting		
Number of Commercial Trips Generated	335	305	A.M.	100% Commercial Development
	416	411	P.M.	

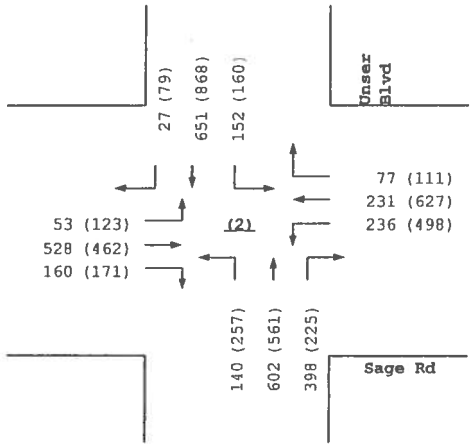
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts **2008**

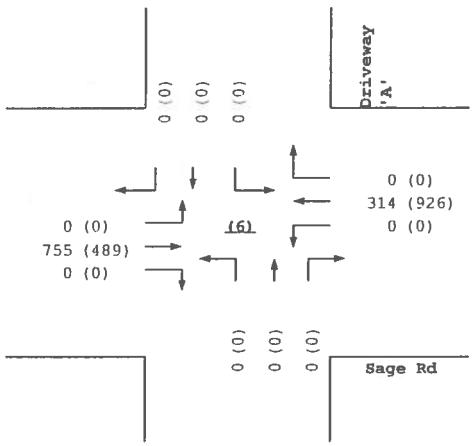
Implementation Year **2014**

	Growth Rates	3.00%			3.00%			3.00%			3.00%		
		Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth		0	102	0	0	34	0	0	0	0	0	0	0
Subtotal		0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights		0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development		0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below		0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***0***	***755***	***0***	***0***	***314***	***0***	*0*	*0*	*0*	*0*	*0*	*0*
Percent Commercial Trips Generated(Entering)		*0.00%*	*20.84%*	*54.23%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	70	182	0	229	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**825**	**182**	**0**	**543**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

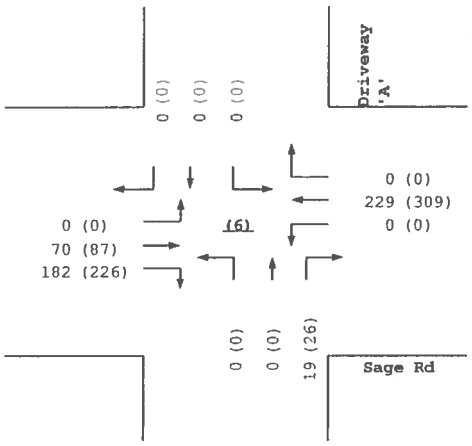
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*54.23%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	226	0	309	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**576**	**226**	**0**	**1,235**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

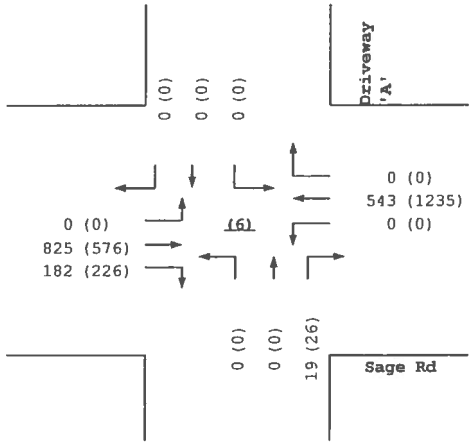
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

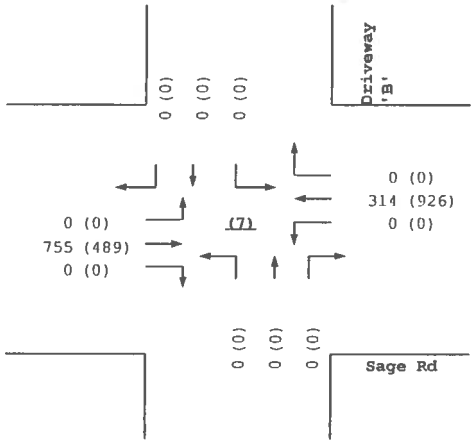
Implementation Year **2014**

Growth Rates	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	102	0	0	34	0	0	0	0	0	0	0
Subtotal	0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***755***	***0***	***0***	***314***	***0***	*0*	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	54	35	84	0	0	229	0	38	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**809**	**35**	**84**	**314**	**0**	**229**	**0**	**38**	**0**	**0**	**0**

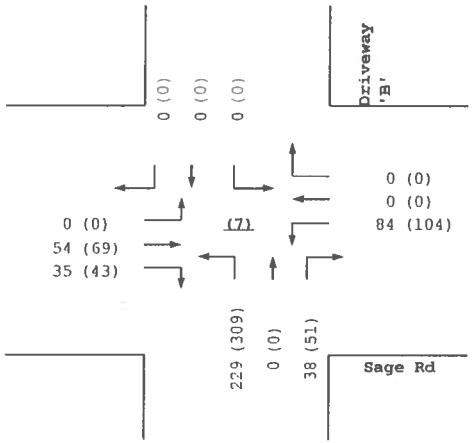
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	*0*	*0*	*0*	*0*	*0*	*0*
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	43	104	0	0	309	0	51	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**558**	**43**	**104**	**926**	**0**	**309**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

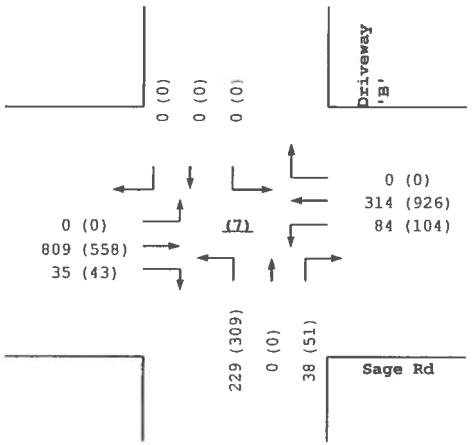
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)

	0.78			0.83			0.87			0.76		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
3.7% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	18	361	136	80	110	12	105	337	222	43	361	8
2014 (NO BUILD - A.M.)	*53*	*459*	*160*	*134*	*168*	*13*	*140*	*602*	*286*	*81*	*651*	*27*
2014 (BUILD - A.M.)	***53***	***528***	***160***	***236***	***231***	***77***	***140***	***602***	***286***	***152***	***651***	***27***

	0.93			0.95			0.91			0.95		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	22	182	124	213	386	21	182	249	55	45	426	25
2014 (NO BUILD - P.M.)	*123*	*376*	*171*	*361*	*542*	*24*	*257*	*561*	*86*	*72*	*868*	*79*
2014 (BUILD - P.M.)	***123***	***462***	***171***	***498***	***627***	***111***	***257***	***561***	***86***	***160***	***868***	***79***

Sage Rd / Driveway 'A'

(6)

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
3.7% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***825***	***70***	***0***	***543***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***576***	***87***	***0***	***1,235***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage Rd / Driveway 'B'

(7)

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
3.7% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
3.0% Truck	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***809***	***35***	***84***	***314***	***0***	***229***	***0***	***38***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
3.0% Truck	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***558***	***43***	***104***	***926***	***0***	***309***	***0***	***51***	***0***	***0***	***0***

Sage Rd / Driveway 'C'

(8)

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
3.7% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***0***	***812***	***35***	***0***	***398***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***0***	***566***	***43***	***0***	***1,030***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

INTERSECTION: **Summary**

Driveway 'D' / Unser Blvd

(9)

3.7% Truck

	0.85			0.85			0.87			0.87			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	0	0	0	0	0	0	664	0	0	510	0	
2014 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,028*	*0*	*0*	*743*	*0*	
2014 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,028***	***112***	***0***	***743***	***0***	

	0.85			0.85			0.91			0.91			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	0	0	0	0	0	0	486	0	0	688	0	
2014 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*904*	*0*	*0*	*1,176*	*0*	
2014 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***904***	***139***	***0***	***1,176***	***0***	

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

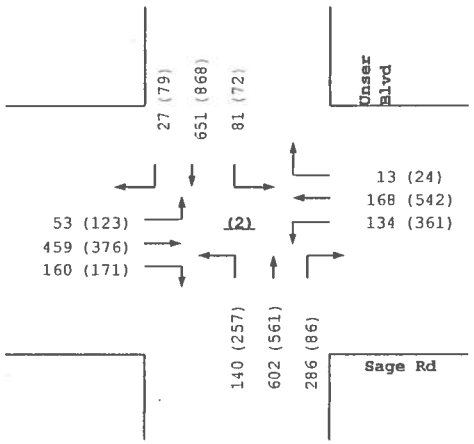
Implementation Year **2014**

Growth Rates	3.50%			3.00%			5.40%			20.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	4	71	27	14	19	2	31	98	65	37	310	7
Subtotal	21	408	154	89	123	13	126	402	265	68	568	13
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***53***	***459***	***160***	***134***	***168***	***13***	***140***	***602***	***286***	***81***	***651***	***27***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	63	64	0	0	0	71	0	0
Total AM Peak Hour BUILD Volumes	**53**	**528**	**160**	**236**	**231**	**77**	**140**	**602**	**286**	**152**	**651**	**27**

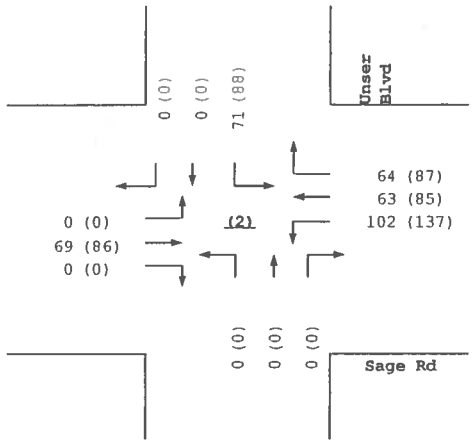
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	4	36	24	36	66	4	53	73	16	38	365	22
Subtotal	25	206	140	237	430	24	217	298	66	70	669	40
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***123***	***376***	***171***	***361***	***542***	***24***	***257***	***561***	***86***	***72***	***868***	***79***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	85	87	0	0	0	88	0	0
Total PM Peak Hour BUILD Volumes	**123**	**462**	**171**	**498**	**627**	**111**	**257**	**561**	**86**	**160**	**868**	**79**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

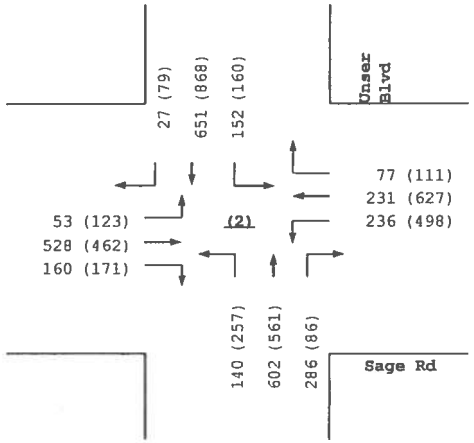
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts 2008

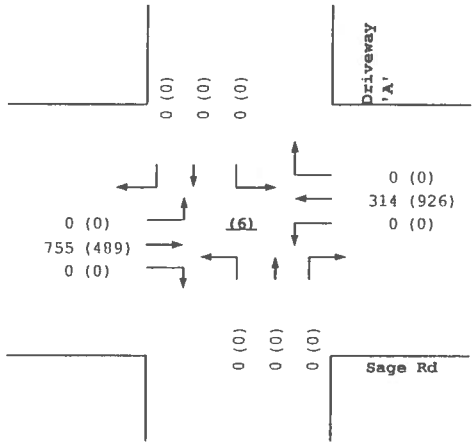
Implementation Year **2014**

	Growth Rates	3.00%			3.00%			3.00%			3.00%		
		Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth		0	102	0	0	34	0	0	0	0	0	0	0
Subtotal		0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights		0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development		0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below		0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	70	70	0	229	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**825**	**70**	**0**	**543**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

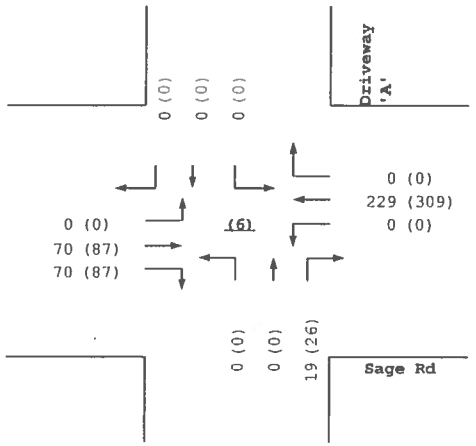
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	87	0	309	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**576**	**87**	**0**	**1,235**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

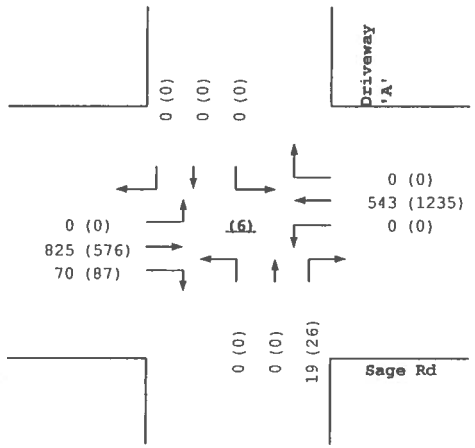
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

Implementation Year **2014**

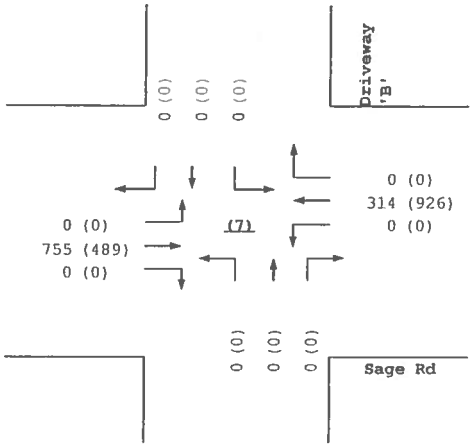
Growth Rates **3.00%** **3.00%** **3.00%** **3.00%**

	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	102	0	0	34	0	0	0	0	0	0	0
Subtotal	0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	54	35	84	0	0	229	0	38	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**809**	**35**	**84**	**314**	**0**	**229**	**0**	**38**	**0**	**0**	**0**

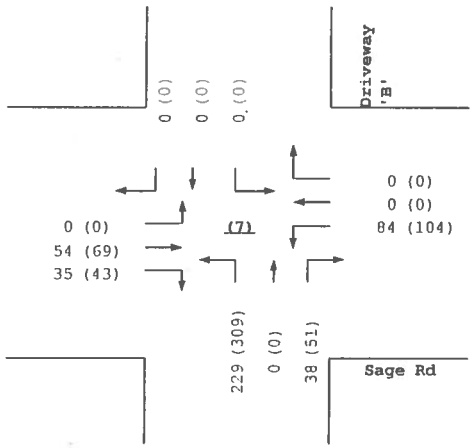
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	43	104	0	0	309	0	51	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**558**	**43**	**104**	**926**	**0**	**309**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

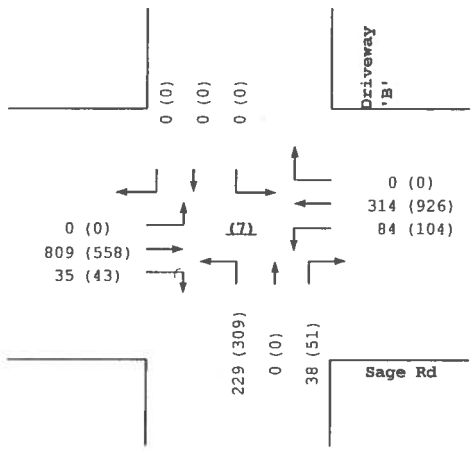
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'C'

INTERSECTION: E-W Street: **Sage Rd** (8)

N-S Street: **Driveway 'C'**

Year of Existing Counts 2008

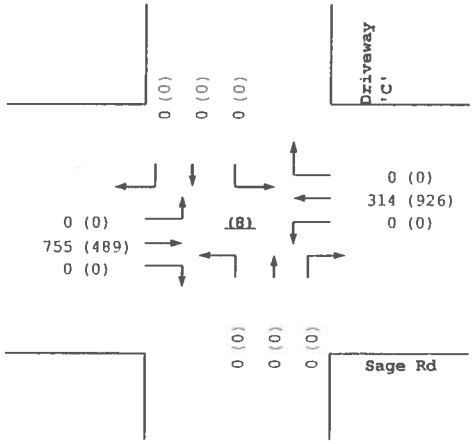
Implementation Year **2014**

Growth Rates	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	102	0	0	34	0	0	0	0	0	0	0
Subtotal	0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	57	35	0	84	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**812**	**35**	**0**	**398**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

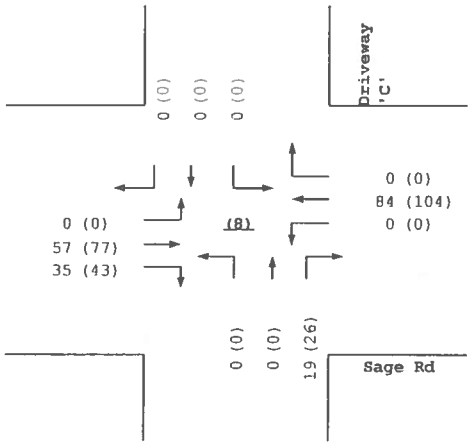
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	77	43	0	104	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**566**	**43**	**0**	**1,030**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

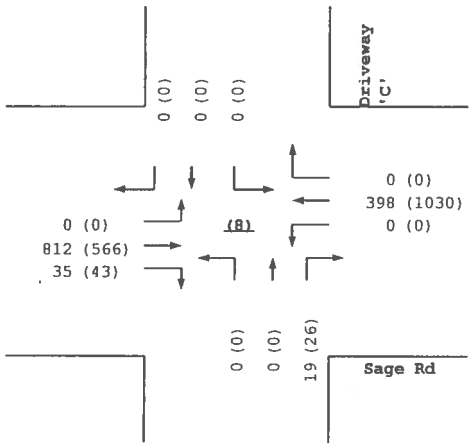
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'C'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Driveway 'D' / Unser Blvd

INTERSECTION: E-W Street: **Driveway 'D'** (9)

N-S Street: **Unser Blvd**

NO EXITING TRAFFIC BECAUSE DRIVE IS RIGHT-IN ONLY

Year of Existing Counts 2008

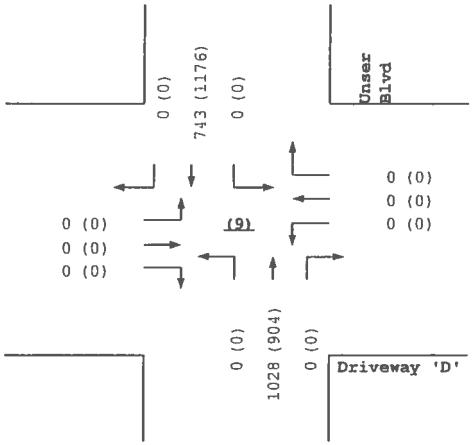
Implementation Year **2014**

	Growth Rates	3.00%			3.00%			5.40%			5.40%		
		Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	0	599	0	0	460	0
Background Traffic Growth		0	0	0	0	0	0	0	194	0	0	149	0
Subtotal		0	0	0	0	0	0	0	793	0	0	609	0
Anderson Hills / Anderson Heights		0	0	0	0	0	0	0	172	0	0	74	0
Greg Sanchez Development		0	0	0	0	0	0	0	8	0	0	5	0
Previous development from below		0	0	0	0	0	0	0	55	0	0	55	0
Subtotal (NO BUILD - A.M.)		***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,028***	***0***	***0***	***743***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	0	0	0	0	0	112	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,028**	**112**	**0**	**743**	**0**

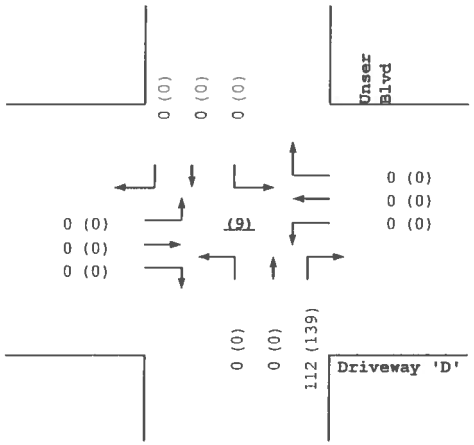
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	439	0	0	621	0
Background Traffic Growth	0	0	0	0	0	0	0	142	0	0	201	0
Subtotal	0	0	0	0	0	0	0	581	0	0	822	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	217	0	0	182	0
Greg Sanchez Development	0	0	0	0	0	0	0	24	0	0	26	0
Previous development from below	0	0	0	0	0	0	0	82	0	0	146	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***904***	***0***	***0***	***1,176***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	0	0	0	139	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**904**	**139**	**0**	**1,176**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

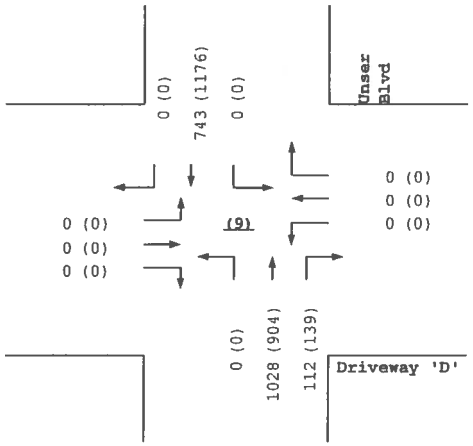
2014
NO BUILD



Trips



2014
BUILD



Driveway 'D' / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)

3.7% Truck

		0.78			0.83			0.87			0.76		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	18	361	136	80	110	12	105	337	222	43	361	8	
2014 (NO BUILD - A.M.)	*53*	*459*	*160*	*134*	*168*	*13*	*140*	*602*	*286*	*81*	*651*	*27*	
2014 (BUILD - A.M.)	***53***	***528***	***160***	***236***	***181***	***26***	***190***	***653***	***286***	***152***	***651***	***27***	

		0.93			0.95			0.91			0.95		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	22	182	124	213	386	21	182	249	55	45	426	25	
2014 (NO BUILD - P.M.)	*123*	*376*	*171*	*361*	*542*	*24*	*257*	*561*	*86*	*72*	*868*	*79*	
2014 (BUILD - P.M.)	***123***	***462***	***171***	***498***	***559***	***41***	***325***	***630***	***86***	***160***	***868***	***79***	

Sage Rd / Driveway 'A'

(6)

3.7% Truck

		0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0	
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - A.M.)	***0***	***825***	***70***	***0***	***441***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

		0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0	
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - P.M.)	***0***	***576***	***87***	***0***	***1,098***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage Rd / Driveway 'B'

(7)

3.7% Truck

3.0% Truck

		0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	602	0	0	201	0	0	0	0	0	0	0	
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - A.M.)	***0***	***809***	***35***	***84***	***314***	***0***	***127***	***0***	***38***	***0***	***0***	***0***	

		0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3.0% Truck	0	267	0	0	620	0	0	0	0	0	0	0	
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - P.M.)	***0***	***558***	***43***	***104***	***926***	***0***	***172***	***0***	***51***	***0***	***0***	***0***	

Sage Rd / Driveway 'C'

(8)

3.7% Truck

		0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	602	0	0	201	0	0	0	0	0	0	0	
2014 (NO BUILD - A.M.)	*0*	*755*	*0*	*0*	*314*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - A.M.)	***0***	***812***	***35***	***0***	***398***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

		0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	267	0	0	620	0	0	0	0	0	0	0	
2014 (NO BUILD - P.M.)	*0*	*489*	*0*	*0*	*926*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - P.M.)	***0***	***566***	***43***	***0***	***1,030***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

INTERSECTION: **Summary**

Driveway 'D' / Unser Blvd

(9)

3.7% Truck

	0.85			0.85			0.87			0.87			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2D10)	0	0	0	0	0	0	0	664	0	0	510	0	
2014 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,028*	*0*	*0*	*743*	*0*	
2014 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***102***	***0***	***1,028***	***112***	***0***	***743***	***0***	

	0.85			0.85			0.91			0.91			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	0	0	0	0	0	0	486	0	0	688	0	
2014 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*904*	*0*	*0*	*1,176*	*0*	
2014 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***137***	***0***	***904***	***139***	***0***	***1,176***	***0***	

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Implementation Year **2014**

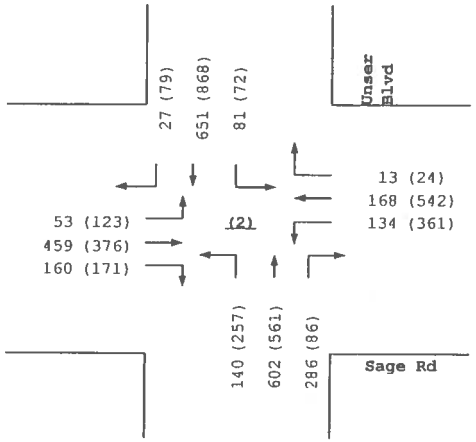
Growth Rates 3.50% | 3.00% | 5.40% | 20.00%

	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	4	71	27	14	19	2	31	98	65	37	310	7
Subtotal	21	408	154	89	123	13	126	402	265	68	568	13
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***53***	***459***	***160***	***134***	***168***	***13***	***140***	***602***	***286***	***81***	***651***	27
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*4.12%*	*4.12%*	*16.47%*	*16.87%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	13	13	50	51	0	71	0	0
Total AM Peak Hour BUILD Volumes	**53**	**528**	**160**	**236**	**181**	**26**	**190**	**653**	**286**	**152**	**651**	**27**

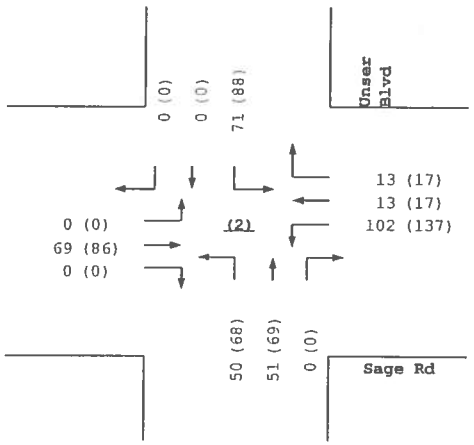
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	4	36	24	36	66	4	53	73	16	38	365	22
Subtotal	25	206	140	237	430	24	217	298	66	70	669	40
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***123***	***376***	***171***	***361***	***542***	***24***	***257***	***561***	***86***	***72***	***868***	***79***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*4.12%*	*4.12%*	*16.47%*	*16.87%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	17	17	68	69	0	88	0	0
Total PM Peak Hour BUILD Volumes	**123**	**462**	**171**	**498**	**559**	**41**	**325**	**630**	**86**	**160**	**868**	**79**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

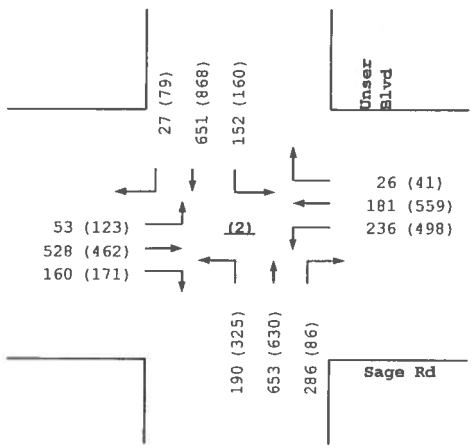
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts 2008

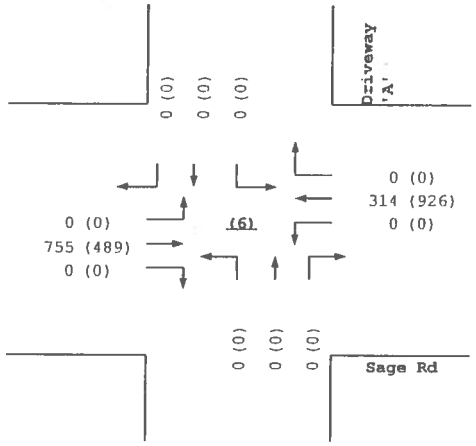
Implementation Year **2014**

Growth Rates	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	102	0	0	34	0	0	0	0	0	0	0
Subtotal	0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	70	70	0	127	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**825**	**70**	**0**	**441**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

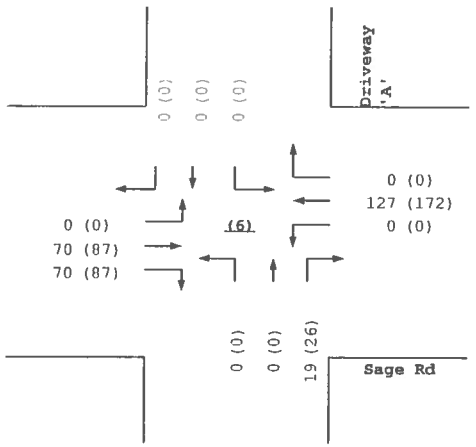
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	87	0	172	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**576**	**87**	**0**	**1,098**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	411	P.M.	

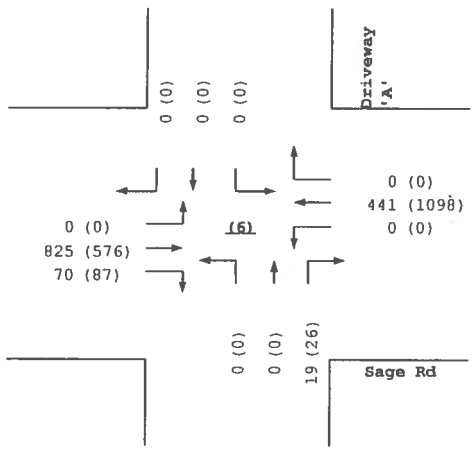
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

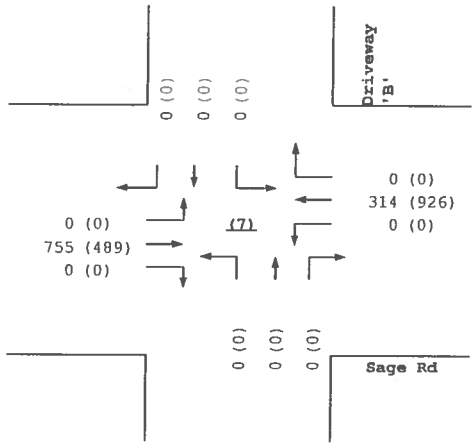
Implementation Year **2014**

	Growth Rates	3.00%			3.00%			3.00%			3.00%		
		Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth		0	102	0	0	34	0	0	0	0	0	0	0
Subtotal		0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights		0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development		0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below		0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	54	35	84	0	0	127	0	38	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**809**	**35**	**84**	**314**	**0**	**127**	**0**	**38**	**0**	**0**	**0**

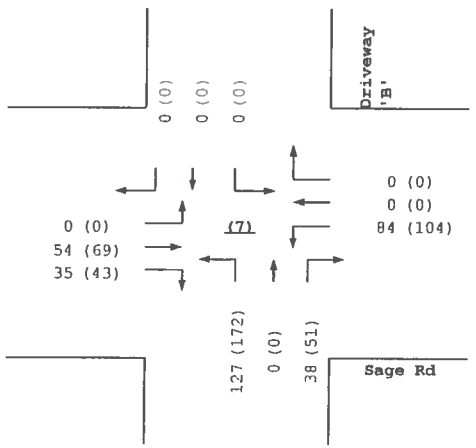
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	43	104	0	0	172	0	51	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**558**	**43**	**104**	**926**	**0**	**172**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

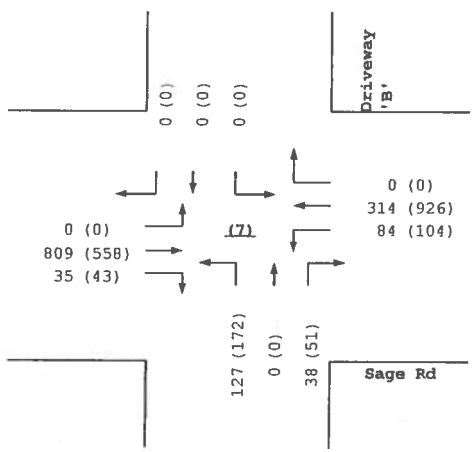
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'C'

INTERSECTION: E-W Street: **Sage Rd** (8)

N-S Street: **Driveway 'C'**

Year of Existing Counts 2008

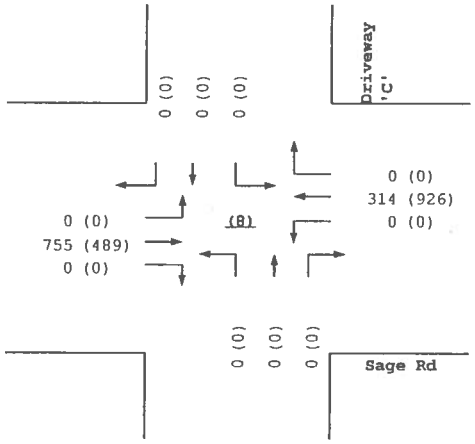
Implementation Year **2014**

Growth Rates	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	102	0	0	34	0	0	0	0	0	0	0
Subtotal	0	670	0	0	224	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***755***	***0***	***0***	***314***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	57	35	0	84	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**812**	**35**	**0**	**398**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

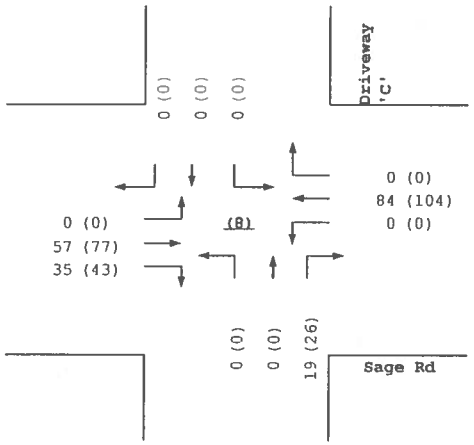
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	45	0	0	105	0	0	0	0	0	0	0
Subtotal	0	297	0	0	690	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***489***	***0***	***0***	***926***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	77	43	0	104	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**566**	**43**	**0**	**1,030**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

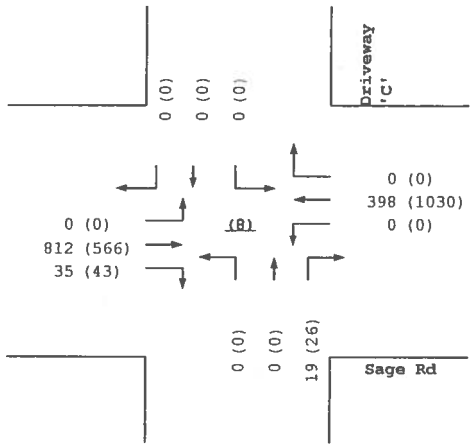
2014
NO BUILD



Trips



2014
BUILD



Sage Rd / Driveway 'C'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Driveway 'D' / Unser Blvd

INTERSECTION: E-W Street: **Driveway 'D'** (9)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

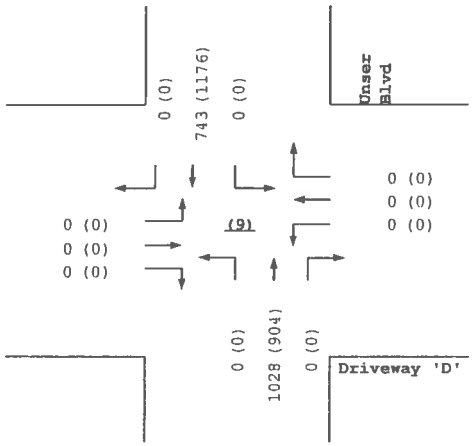
Implementation Year **2014**

Growth Rates	3.00%			3.00%			5.40%			5.40%		
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	599	0	0	460	0
Background Traffic Growth	0	0	0	0	0	0	0	194	0	0	149	0
Subtotal	0	0	0	0	0	0	0	793	0	0	609	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	172	0	0	74	0
Greg Sanchez Development	0	0	0	0	0	0	0	8	0	0	5	0
Previous development from below	0	0	0	0	0	0	0	55	0	0	55	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,028***	***0***	***0***	***743***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.39%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.34%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	102	0	0	112	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**102**	**0**	**1,028**	**112**	**0**	**743**	**0**

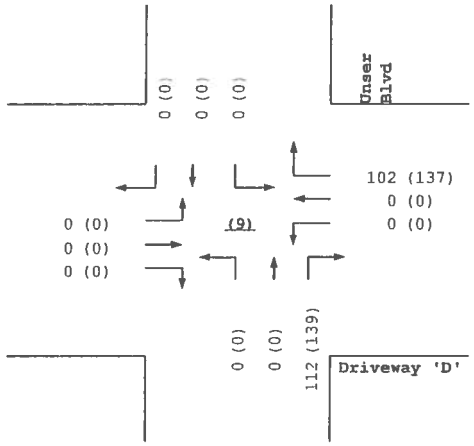
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	439	0	0	621	0
Background Traffic Growth	0	0	0	0	0	0	0	142	0	0	201	0
Subtotal	0	0	0	0	0	0	0	581	0	0	822	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	217	0	0	182	0
Greg Sanchez Development	0	0	0	0	0	0	0	24	0	0	26	0
Previous development from below	0	0	0	0	0	0	0	82	0	0	146	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***904***	***0***	***0***	***1,176***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.39%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.34%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	137	0	0	139	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**137**	**0**	**904**	**139**	**0**	**1,176**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

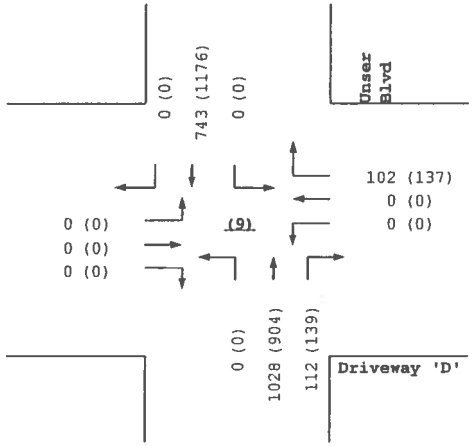
2014
NO BUILD



Trips



2014
BUILD



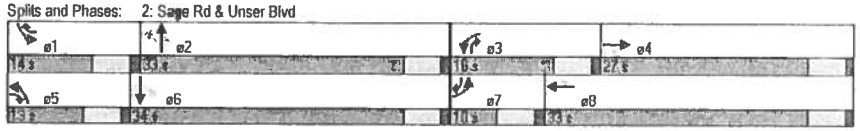
Driveway 'D' / Unser Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	231	77	140	602	398	152	651	27
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	27.0	13.0	16.0	33.0	14.0	13.0	33.0	16.0	14.0	34.0	10.0
Total Split (%)	11.1%	30.0%	14.4%	17.8%	36.7%	15.6%	14.4%	36.7%	17.8%	15.6%	37.8%	11.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	None
Act Effct Green (s)	5.4	20.9	33.9	10.7	28.3	42.2	37.5	29.5	45.2	39.3	30.4	40.8
Actuated g/C Ratio	0.06	0.23	0.38	0.12	0.31	0.47	0.42	0.33	0.50	0.44	0.34	0.45
v/c Ratio	0.33	0.83	0.33	0.70	0.25	0.12	0.63	0.60	0.55	0.62	0.73	0.05
Control Delay	45.5	42.8	18.0	48.2	24.0	4.6	26.9	31.6	25.3	24.0	30.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	42.8	18.0	48.2	24.0	4.6	26.9	31.6	25.3	24.0	30.9	5.4
LOS	D	D	B	D	C	A	C	C	C	C	C	A
Approach Delay		37.6			31.7			28.8			28.8	
Approach LOS		D			C			C			C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 63.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	231	77	140	602	398	152	651	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.16	1.00	1.00	0.24	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	302	3505	1568	436	3505	1568
Peak-hour factor, PHF	0.78	0.78	0.78	0.83	0.83	0.83	0.87	0.87	0.87	0.76	0.76	0.76
Adj. Flow (vph)	68	677	205	284	278	93	161	692	457	200	857	36
RTOR Reduction (vph)	0	0	22	0	0	47	0	0	49	0	0	23
Lane Group Flow (vph)	68	677	183	284	278	46	161	692	408	200	857	13
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	4.3	21.9	29.9	10.7	28.3	37.2	36.5	28.5	39.2	38.3	29.4	33.7
Effective Green, g (s)	4.3	21.9	29.9	10.7	28.3	37.2	36.5	28.5	39.2	38.3	29.4	33.7
Actuated g/C Ratio	0.05	0.24	0.33	0.12	0.31	0.41	0.41	0.32	0.44	0.43	0.33	0.37
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	162	853	608	404	1102	735	251	1110	770	316	1145	674
v/s Ratio Prot	0.02	c0.19	0.03	c0.08	0.08	0.01	0.06	0.20	c0.06	c0.06	c0.24	0.00
v/s Ratio Perm			0.09			0.02	0.20		0.20	0.21		0.01
v/c Ratio	0.42	0.79	0.30	0.70	0.25	0.06	0.64	0.62	0.53	0.63	0.75	0.02
Uniform Delay, d1	41.6	31.9	22.3	38.1	23.0	15.9	19.1	26.2	18.6	17.8	27.0	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.17	1.14	1.79	1.00	1.00	1.00
Incremental Delay, d2	1.8	5.1	0.3	5.5	0.1	0.0	4.4	2.1	0.5	4.1	4.5	0.0
Delay (s)	43.4	37.1	22.6	43.6	23.1	15.9	26.6	31.8	33.8	21.9	31.5	17.8
Level of Service	D	D	C	D	C	B	C	C	C	C	C	B
Approach Delay (s)		34.4			31.0			31.9			29.3	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	31.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings
2: Sage Rd & Unser Blvd

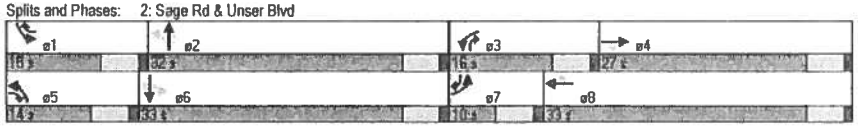
Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	231	77	140	602	286	152	651	27
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	27.0	14.0	16.0	33.0	15.0	14.0	32.0	16.0	15.0	33.0	10.0
Total Split (%)	11.1%	30.0%	15.6%	17.8%	36.7%	16.7%	15.6%	35.6%	17.8%	16.7%	36.7%	11.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Min	None	None	C-Min	None
Act Effct Green (s)	5.4	20.9	34.5	10.7	28.3	42.8	37.5	28.9	44.6	39.3	29.8	40.2
Actuated g/C Ratio	0.06	0.23	0.38	0.12	0.31	0.48	0.42	0.32	0.50	0.44	0.33	0.45
v/c Ratio	0.33	0.83	0.33	0.70	0.25	0.12	0.62	0.62	0.40	0.61	0.74	0.05
Control Delay	45.5	42.8	17.8	48.2	24.0	4.8	24.6	32.1	22.4	23.1	31.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	42.8	17.8	48.2	24.0	4.8	24.6	32.1	22.4	23.1	31.9	5.6
LOS	D	D	B	D	C	A	C	C	C	C	C	A
Approach Delay		37.6			31.7			28.4			29.4	
Approach LOS		D			C			C			C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 31.5 — Intersection LOS: C
Intersection Capacity Utilization 63.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Sage Rd & Unser Blvd

Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	231	77	140	602	286	152	651	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.16	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	291	3505	1568	427	3505	1568
Peak-hour factor, PHF	0.78	0.78	0.78	0.83	0.83	0.83	0.87	0.87	0.87	0.76	0.76	0.76
Adj. Flow (vph)	68	677	205	284	278	93	161	692	329	200	857	36
RTOR Reduction (vph)	0	0	20	0	0	44	0	0	55	0	0	23
Lane Group Flow (vph)	68	677	185	284	278	49	161	692	274	200	857	13
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	4.3	21.9	30.5	10.7	28.3	37.8	36.5	27.9	38.6	38.3	28.8	33.1
Effective Green, g (s)	4.3	21.9	30.5	10.7	28.3	37.8	36.5	27.9	38.6	38.3	28.8	33.1
Actuated g/C Ratio	0.05	0.24	0.34	0.12	0.31	0.42	0.41	0.31	0.43	0.43	0.32	0.37
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	162	853	618	404	1102	746	258	1087	760	322	1122	664
v/s Ratio Prot	0.02	c0.19	0.03	c0.08	0.08	0.01	0.06	0.20	0.04	c0.07	c0.24	0.00
v/s Ratio Perm			0.09			0.02	0.19		0.13	0.20		0.01
v/c Ratio	0.42	0.79	0.30	0.70	0.25	0.07	0.62	0.64	0.36	0.62	0.76	0.02
Uniform Delay, d1	41.6	31.9	21.9	38.1	23.0	15.6	19.1	26.7	17.4	17.8	27.5	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.13	2.04	1.00	1.00	1.00
Incremental Delay, d2	1.8	5.1	0.3	5.5	0.1	0.0	3.4	2.1	0.2	3.7	5.0	0.0
Delay (s)	43.4	37.1	22.2	43.6	23.1	15.6	24.1	32.2	35.7	21.5	32.5	18.1
Level of Service	D	D	C	D	C	B	C	C	D	C	C	B
Approach Delay (s)		34.3			30.9			32.1			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings
2: Sage Rd & Unser Blvd

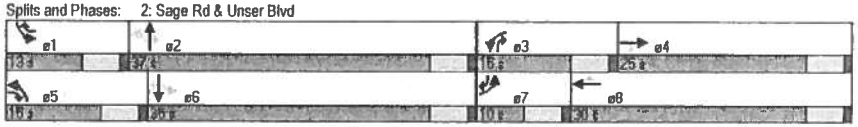
Terry O. Brown, P.E.
7/11/2010 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	181	26	190	653	286	152	651	27
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	25.0	15.0	15.0	30.0	13.0	15.0	37.0	15.0	13.0	35.0	10.0
Total Split (%)	11.1%	27.8%	16.7%	16.7%	33.3%	14.4%	16.7%	41.1%	16.7%	14.4%	38.9%	11.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	5.0	19.6	34.3	9.9	24.5	37.4	42.3	32.6	47.5	38.8	30.8	40.8
Actuated g/C Ratio	0.06	0.22	0.38	0.11	0.27	0.42	0.47	0.36	0.53	0.43	0.34	0.45
v/c Ratio	0.36	0.89	0.33	0.76	0.23	0.05	0.73	0.59	0.38	0.63	0.71	0.05
Control Delay	46.6	49.4	17.8	53.1	26.0	5.9	30.6	31.6	17.5	23.7	30.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	49.4	17.8	53.1	26.0	5.9	30.6	31.6	17.5	23.7	30.1	5.2
LOS	D	D	B	D	C	A	C	C	B	C	C	A
Approach Delay		42.4			39.3			27.9			28.1	
Approach LOS		D			D			C			C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 33.0 — Intersection LOS: C
Intersection Capacity Utilization 66.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Sage Rd & Unser Blvd

Terry O. Brown, P.E.
7/11/2010 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	528	160	236	181	26	190	853	286	152	651	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.16	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	299	3505	1568	471	3505	1568
Peak-hour factor, PHF	0.78	0.78	0.78	0.83	0.83	0.83	0.87	0.87	0.87	0.76	0.76	0.76
Adj. Flow (vph)	68	677	205	284	218	31	218	751	329	200	857	36
RTOR Reduction (vph)	0	0	23	0	0	20	0	0	44	0	0	22
Lane Group Flow (vph)	68	677	182	284	218	11	218	751	285	200	857	14
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.0	19.6	29.3	9.9	24.5	32.4	42.3	32.6	42.5	38.7	30.8	35.8
Effective Green, g (s)	5.0	19.6	29.3	9.9	24.5	32.4	42.3	32.6	42.5	38.7	30.8	35.8
Actuated g/C Ratio	0.06	0.22	0.33	0.11	0.27	0.36	0.47	0.36	0.47	0.43	0.34	0.40
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	189	763	598	374	954	652	297	1270	828	315	1199	711
v/s Ratio Prot	0.02	c0.19	0.03	c0.08	c0.06	0.00	c0.08	0.21	0.04	0.06	0.24	0.00
v/s Ratio Perm			0.08			0.01	c0.27		0.14	0.22		0.01
v/c Ratio	0.36	0.89	0.30	0.76	0.23	0.02	0.73	0.59	0.34	0.63	0.71	0.02
Uniform Delay, d1	41.0	34.1	22.7	38.9	25.4	18.5	16.8	23.3	15.0	17.2	25.8	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.24	1.26	1.74	1.00	1.00	1.00
Incremental Delay, d2	1.2	12.1	0.3	8.6	0.1	0.0	7.2	1.6	0.2	4.1	3.7	0.0
Delay (s)	42.1	46.2	23.0	47.5	25.5	18.6	28.0	30.9	26.3	21.3	29.4	16.5
Level of Service	D	D	C	D	C	B	C	C	C	C	C	B
Approach Delay (s)		40.9			36.8			29.3			27.5	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	32.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

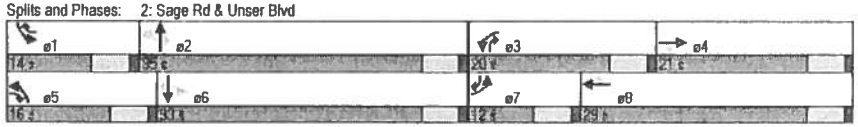
Timings
2: Sage Rd & Unser Blvd

Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	627	111	257	561	225	160	868	79
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	21.0	16.0	20.0	29.0	14.0	16.0	35.0	20.0	14.0	33.0	12.0
Total Split (%)	13.3%	23.3%	17.8%	22.2%	32.2%	15.6%	17.8%	38.9%	22.2%	15.6%	36.7%	13.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	6.9	15.5	32.0	15.0	23.7	37.3	42.1	30.8	50.8	36.6	28.0	39.9
Actuated g/C Ratio	0.08	0.17	0.36	0.17	0.26	0.41	0.47	0.34	0.56	0.41	0.31	0.44
v/c Ratio	0.51	0.82	0.32	0.92	0.72	0.17	0.92	0.51	0.26	0.46	0.84	0.11
Control Delay	47.2	48.3	20.8	61.3	35.2	5.4	57.7	32.6	8.5	17.8	37.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	48.3	20.8	61.3	35.2	5.4	57.7	32.6	8.5	17.8	37.3	6.0
LOS	D	D	C	E	D	A	E	C	A	B	D	A
Approach Delay		41.9			43.0			33.6			32.2	
Approach LOS		D			D			C			C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 37.5		Intersection LOS: D	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Sage Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Sage Rd & Unser Blvd

Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	627	111	257	561	225	160	868	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.13	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	240	3505	1568	631	3505	1568
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	132	497	184	524	660	117	282	616	247	168	914	83
RTOR Reduction (vph)	0	0	13	0	0	63	0	0	77	0	0	39
Lane Group Flow (vph)	132	497	171	524	660	54	282	616	170	168	914	44
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.9	15.6	27.1	15.0	23.7	32.3	42.3	30.8	45.8	36.5	27.9	34.8
Effective Green, g (s)	6.9	15.6	27.1	15.0	23.7	32.3	42.3	30.8	45.8	36.5	27.9	34.8
Actuated g/C Ratio	0.08	0.17	0.30	0.17	0.26	0.36	0.47	0.34	0.51	0.41	0.31	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	261	608	559	567	923	650	306	1199	885	363	1087	693
v/s Ratio Prot	0.04	0.14	0.04	c0.15	c0.19	0.01	c0.12	0.18	0.03	0.04	0.26	0.00
v/s Ratio Perm			0.07			0.03	c0.32		0.08	0.14		0.02
v/c Ratio	0.51	0.82	0.31	0.92	0.72	0.08	0.92	0.51	0.19	0.46	0.84	0.06
Uniform Delay, d1	39.9	35.8	24.2	36.9	30.1	19.1	21.8	23.6	12.0	17.8	29.0	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.29	2.01	1.00	1.00	1.00
Incremental Delay, d2	1.5	8.4	0.3	20.9	2.7	0.1	29.5	1.4	0.1	0.9	7.9	0.0
Delay (s)	41.5	44.2	24.5	57.9	32.7	19.1	52.3	31.9	24.3	18.7	36.9	17.4
Level of Service	D	D	C	E	C	B	D	C	C	B	D	B
Approach Delay (s)		39.3			41.6			35.3			32.9	
Approach LOS		D			D			D			C	

Intersection Summary					
HCM Average Control Delay		37.3	HCM Level of Service		D
HCM Volume to Capacity ratio		0.87			
Actuated Cycle Length (s)		90.0	Sum of lost time (s)		15.0
Intersection Capacity Utilization		81.9%	ICU Level of Service		D
Analysis Period (min)		15			
c Critical Lane Group					

Timings
2: Sage Rd & Unser Blvd

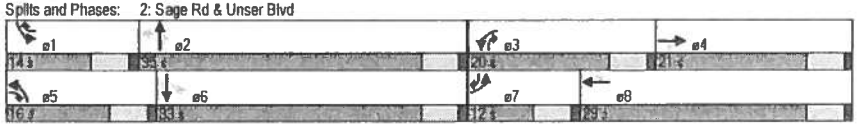
Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	627	111	257	561	76	160	868	79
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	21.0	16.0	20.0	29.0	14.0	16.0	35.0	20.0	14.0	33.0	12.0
Total Split (%)	13.3%	23.3%	17.8%	22.2%	32.2%	15.6%	17.8%	38.9%	22.2%	15.6%	36.7%	13.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	6.9	15.5	32.0	15.0	23.7	37.3	42.1	30.8	50.8	36.6	28.0	39.9
Actuated g/C Ratio	0.08	0.17	0.36	0.17	0.26	0.41	0.47	0.34	0.56	0.41	0.31	0.44
v/c Ratio	0.51	0.82	0.32	0.92	0.72	0.17	0.92	0.51	0.09	0.46	0.84	0.11
Control Delay	47.2	48.3	20.8	61.3	35.2	5.4	57.5	33.6	7.4	17.8	37.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	48.3	20.8	61.3	35.2	5.4	57.5	33.6	7.4	17.8	37.3	6.0
LOS	D	D	C	E	D	A	E	C	A	B	D	A
Approach Delay		41.9			43.0			38.2			32.2	
Approach LOS		D			D			D			C	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 38.8 Intersection LOS: D
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Sage Rd & Unser Blvd

Terry O. Brown, P.E.
7/10/2010 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	627	111	257	561	76	160	868	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.13	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	240	3505	1568	631	3505	1568
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	132	497	184	524	660	117	282	616	84	168	914	83
RTOR Reduction (vph)	0	0	13	0	0	63	0	0	41	0	0	39
Lane Group Flow (vph)	132	497	171	524	660	54	282	616	43	168	914	44
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.9	15.6	27.1	15.0	23.7	32.3	42.3	30.8	45.8	36.5	27.9	34.8
Effective Green, g (s)	6.9	15.6	27.1	15.0	23.7	32.3	42.3	30.8	45.8	36.5	27.9	34.8
Actuated g/C Ratio	0.08	0.17	0.30	0.17	0.26	0.36	0.47	0.34	0.51	0.41	0.31	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	261	608	559	567	923	650	306	1199	885	363	1087	693
v/s Ratio Prot	0.04	0.14	0.04	c0.15	c0.19	0.01	c0.12	0.18	0.01	0.04	0.26	0.00
v/s Ratio Perm			0.07			0.03	c0.32		0.02	0.14		0.02
v/c Ratio	0.51	0.82	0.31	0.92	0.72	0.08	0.92	0.51	0.05	0.46	0.84	0.06
Uniform Delay, d1	39.9	35.8	24.2	36.9	30.1	19.1	21.8	23.6	11.1	17.8	29.0	17.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.34	3.14	1.00	1.00	1.00
Incremental Delay, d2	1.5	8.4	0.3	20.9	2.7	0.1	28.4	1.3	0.0	0.9	7.9	0.0
Delay (s)	41.5	44.2	24.5	57.9	32.7	19.1	52.5	32.9	35.0	18.7	36.9	17.4
Level of Service	D	D	C	E	C	B	D	C	C	B	D	B
Approach Delay (s)		39.3			41.6			38.7			32.9	
Approach LOS		D			D			D			C	

Intersection Summary

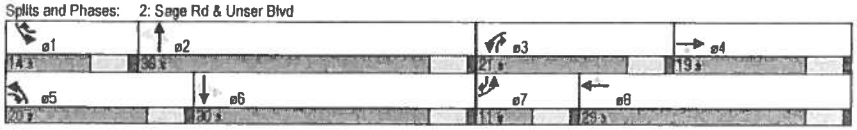
HCM Average Control Delay	38.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	559	41	325	630	86	160	868	79
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	11.0	19.0	20.0	21.0	29.0	14.0	20.0	36.0	21.0	14.0	30.0	11.0
Total Split (%)	12.2%	21.1%	22.2%	23.3%	32.2%	15.6%	22.2%	40.0%	23.3%	15.6%	33.3%	12.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	6.0	14.1	34.2	15.8	23.9	37.5	45.1	31.5	52.3	33.6	25.0	36.0
Actuated g/C Ratio	0.07	0.16	0.38	0.18	0.27	0.42	0.50	0.35	0.58	0.37	0.28	0.40
v/c Ratio	0.58	0.90	0.30	0.88	0.63	0.06	0.95	0.56	0.10	0.49	0.94	0.12
Control Delay	51.6	59.2	19.8	53.7	32.7	5.3	56.5	31.7	7.0	18.8	50.2	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	59.2	19.8	53.7	32.7	5.3	56.5	31.7	7.0	18.8	50.2	5.1
LOS	D	E	B	D	C	A	E	C	A	B	D	A
Approach Delay		49.1			41.2			37.4			42.4	
Approach LOS		D			D			D			D	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	462	171	498	559	41	325	630	86	160	868	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.13	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	246	3505	1568	621	3505	1568
Peak-hour factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95
Adj. Flow (vph)	132	497	184	524	588	43	357	692	95	168	914	83
RTOR Reduction (vph)	0	0	9	0	0	27	0	0	45	0	0	52
Lane Group Flow (vph)	132	497	175	524	588	16	357	692	50	168	914	31
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.0	14.1	29.2	15.8	23.9	32.5	45.1	31.5	47.3	33.6	25.0	31.0
Effective Green, g (s)	6.0	14.1	29.2	15.8	23.9	32.5	45.1	31.5	47.3	33.6	25.0	31.0
Actuated g/C Ratio	0.07	0.16	0.32	0.18	0.27	0.36	0.50	0.35	0.53	0.37	0.28	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227	549	596	597	931	653	376	1227	911	340	974	627
v/s Ratio Prot	0.04	c0.14	0.05	c0.15	0.17	0.00	c0.16	0.20	0.01	0.05	0.26	0.00
v/s Ratio Perm			0.06			0.01	c0.32		0.02	0.14		0.02
v/c Ratio	0.58	0.91	0.29	0.88	0.63	0.02	0.95	0.56	0.05	0.49	0.94	0.05
Uniform Delay, d1	40.8	37.3	22.7	36.2	29.2	18.5	24.3	23.7	10.4	19.6	31.7	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.93	1.24	3.45	1.00	1.00	1.00
Incremental Delay, d2	3.8	18.4	0.3	13.7	1.4	0.0	30.9	1.7	0.0	1.1	17.3	0.0
Delay (s)	44.5	55.7	23.0	49.9	30.6	18.5	53.7	31.1	36.0	20.8	49.1	19.7
Level of Service	D	E	C	D	C	B	D	C	D	C	D	B
Approach Delay (s)		46.5			38.9			38.6			42.9	
Approach LOS		D			D			D			D	

Intersection Summary					
HCM Average Control Delay	41.3	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.90				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		15.0	
Intersection Capacity Utilization	85.8%	ICU Level of Service		E	
Analysis Period (min)	15				
c Critical Lane Group					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	825	70	0	543	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	994	84	0	654	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			1078		1321	497
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			726		1013	38
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			732		197	864

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	497	497	84	327	327	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	84	0	0	22
cSH	1700	1700	1700	1700	1700	864
Volume to Capacity	0.29	0.29	0.05	0.19	0.19	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.3
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	825	70	0	543	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	994	84	0	654	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.84		0.84	0.84
vC, conflicting volume			1078		1321	497
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			700		990	4
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			740		202	898

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	497	497	84	327	327	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	84	0	0	22
cSH	1700	1700	1700	1700	1700	898
Volume to Capacity	0.29	0.29	0.05	0.19	0.19	0.02
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.1
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.1
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	825	70	0	543	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	994	84	0	654	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.83		0.83	0.83
vC, conflicting volume			1078		1321	497
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			683		975	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			746		205	896

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	497	497	84	327	327	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	84	0	0	22
cSH	1700	1700	1700	1700	1700	896
Volume to Capacity	0.29	0.29	0.05	0.19	0.19	0.02
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.1
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.1
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	576	87	0	1235	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	606	92	0	1300	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	165					
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			698		1302	349
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			385		1072	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1024		188	952

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	404	294	650	650	31
Volume Left	0	0	0	0	0
Volume Right	0	92	0	0	31
cSH	1700	1700	1700	1700	952
Volume to Capacity	0.24	0.17	0.38	0.38	0.03
Queue Length 95th (ft)	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	8.9
Lane LOS					A
Approach Delay (s)	0.0		0.0		8.9
Approach LOS					A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	576	87	0	1235	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	606	92	0	1300	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	165					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			698		1302	349
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			352		1047	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1040		193	940

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	404	294	650	650	31
Volume Left	0	0	0	0	0
Volume Right	0	92	0	0	31
cSH	1700	1700	1700	1700	940
Volume to Capacity	0.24	0.17	0.38	0.38	0.03
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	9.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.0
Approach LOS					A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	576	87	0	1235	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	606	92	0	1300	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	165					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			698		1302	349
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			354		1048	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			1039		193	940

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	404	294	650	650	31
Volume Left	0	0	0	0	0
Volume Right	0	92	0	0	31
cSH	1700	1700	1700	1700	940
Volume to Capacity	0.24	0.17	0.38	0.38	0.03
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	9.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.0
Approach LOS					A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	809	35	84	314	229	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	975	42	101	378	269	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			1017		1366	487
vC1, stage 1 conf vol					975	
vC2, stage 2 conf vol					392	
vCu, unblocked vol			723		1124	115
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		4	94
cM capacity (veh/h)			756		280	794

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	487	487	42	101	189	189	314
Volume Left	0	0	0	101	0	0	269
Volume Right	0	0	42	0	0	0	45
cSH	1700	1700	1700	756	1700	1700	309
Volume to Capacity	0.29	0.29	0.02	0.13	0.11	0.11	1.02
Queue Length 95th (ft)	0	0	0	12	0	0	280
Control Delay (s)	0.0	0.0	0.0	10.5	0.0	0.0	93.8
Lane LOS				B			F
Approach Delay (s)	0.0			2.2			93.8
Approach LOS							F

Intersection Summary			
Average Delay	16.9		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	809	35	84	314	229	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	975	42	101	378	269	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			1017		1366	487
vC1, stage 1 conf vol					975	
vC2, stage 2 conf vol					392	
vCu, unblocked vol			675		1085	54
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		7	95
cM capacity (veh/h)			772		289	851

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	487	487	42	101	189	189	314
Volume Left	0	0	0	101	0	0	269
Volume Right	0	0	42	0	0	0	45
cSH	1700	1700	1700	772	1700	1700	319
Volume to Capacity	0.29	0.29	0.02	0.13	0.11	0.11	0.99
Queue Length 95th (ft)	0	0	0	11	0	0	265
Control Delay (s)	0.0	0.0	0.0	10.4	0.0	0.0	84.1
Lane LOS				B			F
Approach Delay (s)	0.0			2.2			84.1
Approach LOS							F

Intersection Summary			
Average Delay	15.2		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	809	35	84	314	229	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	975	42	101	378	269	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			1017		1366	487
vC1, stage 1 conf vol					975	
vC2, stage 2 conf vol					392	
vCu, unblocked vol			658		1071	33
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		8	95
cM capacity (veh/h)			778		292	872

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	487	487	42	101	189	189	314
Volume Left	0	0	0	101	0	0	269
Volume Right	0	0	42	0	0	0	45
cSH	1700	1700	1700	778	1700	1700	322
Volume to Capacity	0.29	0.29	0.02	0.13	0.11	0.11	0.98
Queue Length 95th (ft)	0	0	0	11	0	0	259
Control Delay (s)	0.0	0.0	0.0	10.3	0.0	0.0	80.9
Lane LOS				B			F
Approach Delay (s)	0.0			2.2			80.9
Approach LOS							F

Intersection Summary			
Average Delay	14.6		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱	↰	↑↑	↰	↱
Volume (veh/h)	558	43	104	926	309	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	587	45	109	975	364	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.97		0.97	0.97
vC, conflicting volume			633		1294	294
vC1, stage 1 conf vol					587	
vC2, stage 2 conf vol					706	
vCu, unblocked vol			559		1241	209
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			89		0	92
cM capacity (veh/h)			971		273	769

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	294	294	45	109	487	487	364	60
Volume Left	0	0	0	109	0	0	364	0
Volume Right	0	0	45	0	0	0	0	60
cSH	1700	1700	1700	971	1700	1700	273	769
Volume to Capacity	0.17	0.17	0.03	0.11	0.29	0.29	1.33	0.08
Queue Length 95th (ft)	0	0	0	9	0	0	466	6
Control Delay (s)	0.0	0.0	0.0	9.2	0.0	0.0	209.4	10.1
Lane LOS				A			F	B
Approach Delay (s)	0.0			0.9			181.2	
Approach LOS							F	

Intersection Summary			
Average Delay	36.3		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	558	43	104	926	309	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	587	45	109	975	364	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.91		0.91	0.91
vC, conflicting volume			633		1294	294
vC1, stage 1 conf vol					587	
vC2, stage 2 conf vol					706	
vCu, unblocked vol			400		1126	28
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			90		0	94
cM capacity (veh/h)			1045		291	945

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	294	294	45	109	487	487	364	60
Volume Left	0	0	0	109	0	0	364	0
Volume Right	0	0	45	0	0	0	0	60
cSH	1700	1700	1700	1045	1700	1700	291	945
Volume to Capacity	0.17	0.17	0.03	0.10	0.29	0.29	1.25	0.06
Queue Length 95th (ft)	0	0	0	9	0	0	427	5
Control Delay (s)	0.0	0.0	0.0	8.8	0.0	0.0	174.6	9.1
Lane LOS				A			F	A
Approach Delay (s)	0.0			0.9			151.2	
Approach LOS							F	

Intersection Summary			
Average Delay	30.4		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱	↰	↑↑	↰	↱
Volume (veh/h)	558	43	104	926	309	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	587	45	109	975	364	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.91		0.91	0.91
vC, conflicting volume			633		1294	294
vC1, stage 1 conf vol					587	
vC2, stage 2 conf vol					706	
vCu, unblocked vol			408		1131	36
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			89		0	94
cM capacity (veh/h)			1042		290	936

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	294	294	45	109	487	487	364	60
Volume Left	0	0	0	109	0	0	364	0
Volume Right	0	0	45	0	0	0	0	60
cSH	1700	1700	1700	1042	1700	1700	290	936
Volume to Capacity	0.17	0.17	0.03	0.11	0.29	0.29	1.25	0.06
Queue Length 95th (ft)	0	0	0	9	0	0	429	5
Control Delay (s)	0.0	0.0	0.0	8.9	0.0	0.0	176.2	9.1
Lane LOS				A			F	A
Approach Delay (s)	0.0			0.9			152.5	
Approach LOS							F	

Intersection Summary			
Average Delay	30.6		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	815	35	0	398	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	982	42	0	480	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			1024		1222	491
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			881		1093	309
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		88	100
cM capacity (veh/h)			706		193	638

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	491	491	42	240	240	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	42	0	0	0
cSH	1700	1700	1700	1700	1700	193
Volume to Capacity	0.29	0.29	0.02	0.14	0.14	0.12
Queue Length 95th (ft)	0	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	26.1
Lane LOS						D
Approach Delay (s)	0.0			0.0		26.1
Approach LOS						D

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑	⋎	
Volume (veh/h)	815	35	0	398	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	982	42	0	480	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			1024		1222	491
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			795		1016	200
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		89	100
cM capacity (veh/h)			731		208	720

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	491	491	42	240	240	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	42	0	0	0
cSH	1700	1700	1700	1700	1700	208
Volume to Capacity	0.29	0.29	0.02	0.14	0.14	0.11
Queue Length 95th (ft)	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	24.3
Lane LOS						C
Approach Delay (s)	0.0			0.0		24.3
Approach LOS						C

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	815	35	0	398	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	982	42	0	480	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			1024		1222	491
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			779		1001	179
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		89	100
cM capacity (veh/h)			736		211	738

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	491	491	42	240	240	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	42	0	0	0
cSH	1700	1700	1700	1700	1700	211
Volume to Capacity	0.29	0.29	0.02	0.14	0.14	0.11
Queue Length 95th (ft)	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	24.0
Lane LOS						C
Approach Delay (s)	0.0			0.0		24.0
Approach LOS						C

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑	↰	
Volume (veh/h)	566	43	0	1030	26	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	596	45	0	1084	31	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked						
vC, conflicting volume			641		1138	298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			641		1138	298
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		84	100
cM capacity (veh/h)			933		194	695

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	298	298	45	542	542	31
Volume Left	0	0	0	0	0	31
Volume Right	0	0	45	0	0	0
cSH	1700	1700	1700	1700	1700	194
Volume to Capacity	0.18	0.18	0.03	0.32	0.32	0.16
Queue Length 95th (ft)	0	0	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	27.1
Lane LOS						D
Approach Delay (s)	0.0			0.0		27.1
Approach LOS						D

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	566	43	0	1030	26	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	596	45	0	1084	31	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.98		0.98	0.98
vC, conflicting volume			641		1138	298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			605		1109	256
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		85	100
cM capacity (veh/h)			948		199	729

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	298	298	45	542	542	31
Volume Left	0	0	0	0	0	31
Volume Right	0	0	45	0	0	0
cSH	1700	1700	1700	1700	1700	199
Volume to Capacity	0.18	0.18	0.03	0.32	0.32	0.15
Queue Length 95th (ft)	0	0	0	0	0	13
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	26.3
Lane LOS						D
Approach Delay (s)	0.0			0.0		26.3
Approach LOS						D

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	566	43	0	1030	26	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	596	45	0	1084	31	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.99		0.99	0.99
vC, conflicting volume			641		1138	298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			620		1121	274
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		84	100
cM capacity (veh/h)			941		197	714

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	298	298	45	542	542	31
Volume Left	0	0	0	0	0	31
Volume Right	0	0	45	0	0	0
cSH	1700	1700	1700	1700	1700	197
Volume to Capacity	0.18	0.18	0.03	0.32	0.32	0.16
Queue Length 95th (ft)	0	0	0	0	0	13
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	26.6
Lane LOS						D
Approach Delay (s)	0.0			0.0		26.6
Approach LOS						D

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	102	1028	112	0	743
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	120	1182	129	0	854
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						467
pX, platoon unblocked	0.88					
vC, conflicting volume	1673	655			1310	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1498	655			1310	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	70			100	
cM capacity (veh/h)	99	406			519	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	120	788	523	427	427
Volume Left	0	0	0	0	0
Volume Right	120	0	129	0	0
cSH	406	1700	1700	1700	1700
Volume to Capacity	0.30	0.46	0.31	0.25	0.25
Queue Length 95th (ft)	30	0	0	0	0
Control Delay (s)	17.5	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	17.5	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	137	904	139	0	1176
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	161	993	153	0	1292
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						467
pX, platoon unblocked	0.86					
vC, conflicting volume	1716	573			1146	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1506	573			1146	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	65			100	
cM capacity (veh/h)	95	460			600	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	161	662	484	646	646
Volume Left	0	0	0	0	0
Volume Right	161	0	153	0	0
cSH	460	1700	1700	1700	1700
Volume to Capacity	0.35	0.39	0.28	0.38	0.38
Queue Length 95th (ft)	39	0	0	0	0
Control Delay (s)	17.0	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	17.0	0.0		0.0	
Approach LOS	C				

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	44.6%	ICU Level of Service		A
Analysis Period (min)	15			

Cummulative Delay Worksheet (Sage / Unser - BUILD Condition)

Sage / Unser	2014 AM Peak Hour								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	53	43.4	2,300	53	43.4	2,300	53	42.1	2,231
Thru	528	37.1	19,589	528	37.1	19,589	528	46.2	24,394
Right	160	22.6	3,616	160	22.2	3,552	160	23	3,680
Westbound									
Left	236	43.6	10,290	236	43.6	10,290	236	47.5	11,210
Thru	231	23.1	5,336	231	23.1	5,336	181	25.5	4,616
Right	77	15.9	1,224	77	15.6	1,201	26	18.6	484
Northbound									
Left	140	26.6	3,724	140	24.1	3,374	190	28	5,320
Thru	602	31.8	19,144	602	32.2	19,384	653	30.9	20,178
Right	398	33.8	13,452	286	35.7	10,210	286	26.3	7,522
Southbound									
Left	152	21.9	3,329	152	21.5	3,268	152	21.3	3,238
Thru	651	31.5	20,507	651	32.5	21,158	651	29.4	19,139
Right	27	17.8	481	27	18.1	489	27	16.5	446
Vehicle Seconds of delay			102,991			100,151			102,456

Sage / Unser	2014 PM Peak Hour								
	Case "N"			Case "Y1"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound									
Left	123	41.5	5,105	123	41.5	5,105	123	44.5	5,474
Thru	462	44.2	20,420	462	44.2	20,420	462	55.7	25,733
Right	171	24.5	4,190	171	24.5	4,190	171	23	3,933
Westbound									
Left	498	57.9	28,834	498	57.9	28,834	498	49.9	24,850
Thru	627	32.7	20,503	627	32.7	20,503	559	30.6	17,105
Right	111	19.1	2,120	111	19.1	2,120	41	18.5	759
Northbound									
Left	257	52.3	13,441	257	52.5	13,493	325	53.7	17,453
Thru	561	31.9	17,896	561	32.9	18,457	630	31.1	19,593
Right	225	24.3	5,468	76	35	2,660	86	36	3,096
Southbound									
Left	160	18.7	2,992	160	18.7	2,992	160	20.8	3,328
Thru	868	36.9	32,029	868	36.9	32,029	868	49.1	42,619
Right	79	17.4	1,375	79	17.4	1,375	79	19.7	1,556
Vehicle Seconds of delay			154,372			152,177			165,499

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2030) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)

3.7% Truck	0.78			0.83			0.87			0.76			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	18	348	131	93	128	14	104	333	219	37	310	7	
2030 (NO BUILD - A.M.)	*55*	*507*	*178*	*313*	*417*	*39*	*209*	*824*	*432*	*112*	*909*	*33*	
2030 (BUILD - A.M.)	***55***	***576***	***178***	***415***	***480***	***103***	***209***	***824***	***544***	***183***	***909***	***33***	

	0.93			0.95			0.91			0.95			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	22	177	121	202	366	20	187	257	57	41	386	23	
2030 (NO BUILD - P.M.)	*129*	*419*	*201*	*337*	*498*	*21*	*457*	*835*	*147*	*129*	*1,409*	*111*	
2030 (BUILD - P.M.)	***129***	***505***	***201***	***474***	***583***	***108***	***457***	***835***	***286***	***217***	***1,409***	***111***	

Sage Rd / Driveway 'A'

(6)

3.7% Truck	0.83			0.83			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***923***	***182***	***0***	***999***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***649***	***226***	***0***	***1,165***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage Rd / Driveway 'B'

(7)

3.7% Truck	0.83			0.83			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3.0% Truck	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***907***	***35***	***84***	***770***	***0***	***229***	***0***	***38***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3.0% Truck	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***631***	***43***	***104***	***856***	***0***	***309***	***0***	***51***	***0***	***0***	***0***	

Sage Rd / Driveway 'C'

(8)

3.7% Truck	0.83			0.83			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***910***	***35***	***0***	***854***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***639***	***43***	***0***	***960***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Horizon Year **2030**

Growth Rates **1.60%** **11.72%** **4.79%** **10.00%**

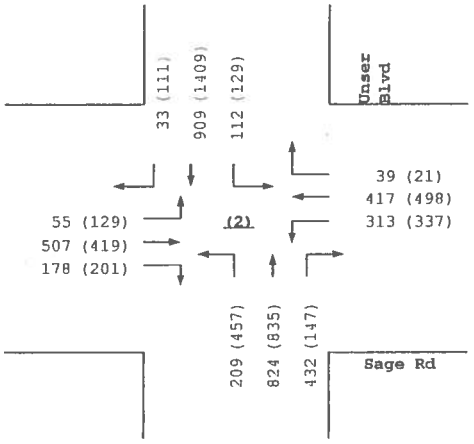
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	6	119	45	193	268	28	100	320	211	68	568	13
Subtotal	23	456	172	268	372	39	195	624	411	99	826	19
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***55***	***507***	***178***	***313***	***417***	***39***	***209***	***824***	***432***	***112***	***909***	***33***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	63	64	0	0	112	71	0	0
Total AM Peak Hour BUILD Volumes	**55**	**576**	**178**	**415**	**480**	**103**	**209**	**824**	**544**	**183**	**909**	**33**

2.12% **0.27%** **7.00%** **13.55%**

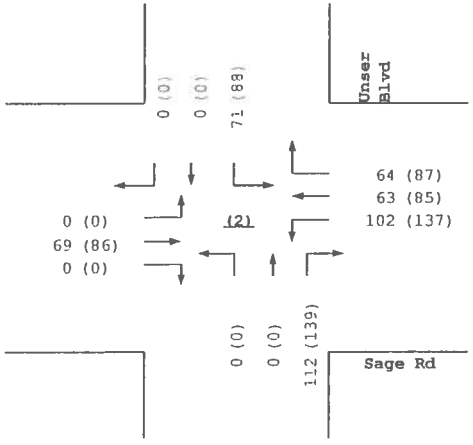
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	10	79	54	12	22	1	253	347	77	95	906	54
Subtotal	31	249	170	213	386	21	417	572	127	127	1,210	72
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***129***	***419***	***201***	***337***	***498***	***21***	***457***	***835***	***147***	***129***	***1,409***	***111***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	85	87	0	0	139	88	0	0
Total PM Peak Hour BUILD Volumes	**129**	**505**	**201**	**474**	**583**	**108**	**457**	**835**	**286**	**217**	**1,409**	**111**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

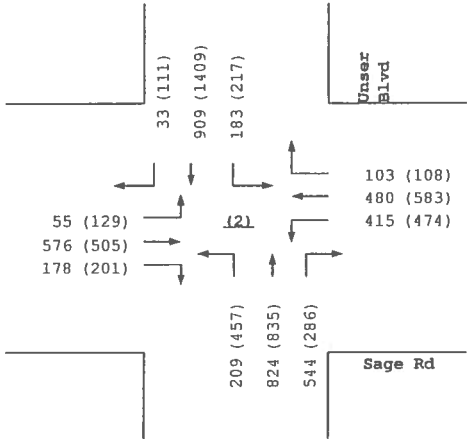
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts 2008

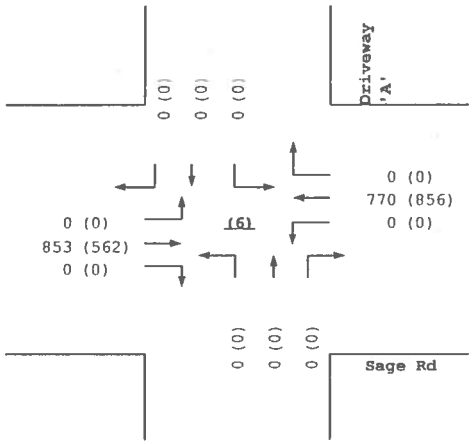
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*54.23%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	70	182	0	229	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**923**	**182**	**0**	**999**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

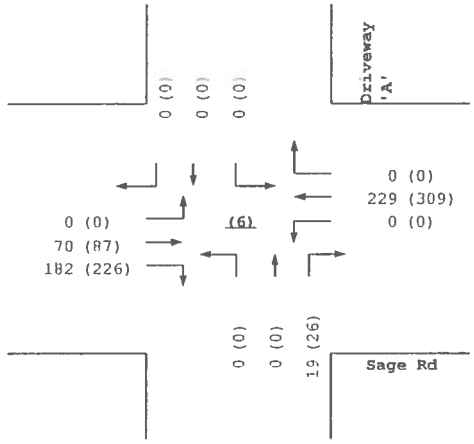
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*54.23%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	226	0	309	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**649**	**226**	**0**	**1,165**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

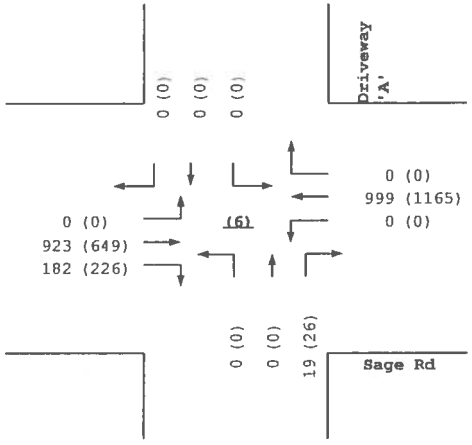
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

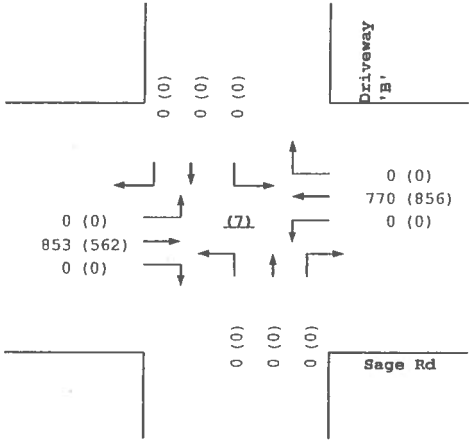
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	54	35	84	0	0	229	0	38	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**907**	**35**	**84**	**770**	**0**	**229**	**0**	**38**	**0**	**0**	**0**

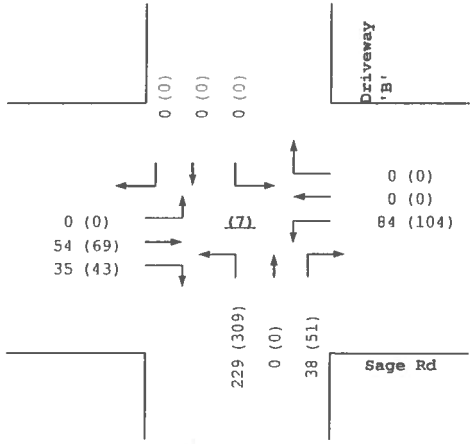
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	43	104	0	0	309	0	51	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**631**	**43**	**104**	**856**	**0**	**309**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

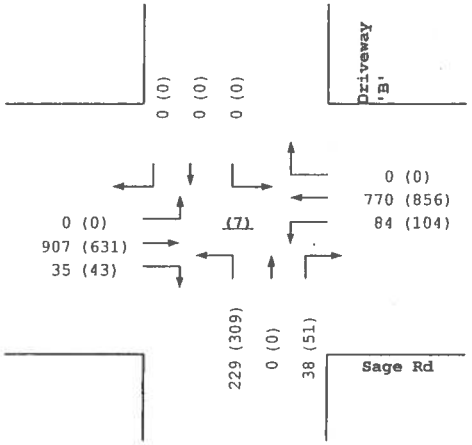
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE N

Projected Turning Movements Worksheet

Sage Rd / Driveway 'C'

INTERSECTION: E-W Street: **Sage Rd** (8)

N-S Street: **Driveway 'C'**

Year of Existing Counts 2008

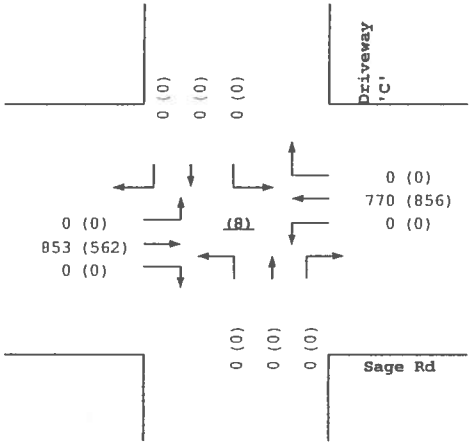
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	57	35	0	84	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**910**	**35**	**0**	**854**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

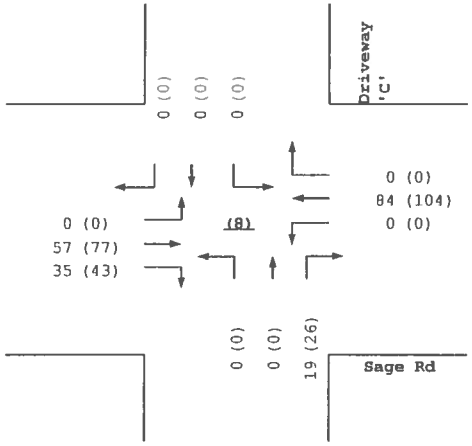
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	77	43	0	104	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**639**	**43**	**0**	**960**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

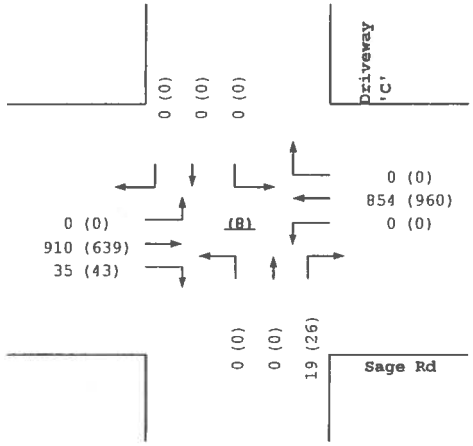
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'C'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2030) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)

3.7% Truck

	0.78			0.83			0.87			0.76		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	18	348	131	93	128	14	104	333	219	37	310	7
2030 (NO BUILD - A.M.)	*55*	*507*	*178*	*313*	*417*	*39*	*209*	*824*	*432*	*112*	*909*	*33*
2030 (BUILD - A.M.)	***55***	***576***	***178***	***415***	***480***	***103***	***209***	***824***	***432***	***183***	***909***	***33***

	0.93			0.95			0.91			0.95		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	22	177	121	202	366	20	187	257	57	41	386	23
2030 (NO BUILD - P.M.)	*129*	*419*	*201*	*337*	*498*	*21*	*457*	*835*	*147*	*129*	*1,409*	*111*
2030 (BUILD - P.M.)	***129***	***505***	***201***	***474***	***583***	***108***	***457***	***835***	***147***	***217***	***1,409***	***111***

Sage Rd / Driveway 'A'

(6)

3.7% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - A.M.)	***0***	***923***	***70***	***0***	***999***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - P.M.)	***0***	***649***	***87***	***0***	***1,165***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage Rd / Driveway 'B'

(7)

3.7% Truck

3.0% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	586	0	0	235	0	0	0	0	0	0	0
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - A.M.)	***0***	***907***	***35***	***84***	***770***	***0***	***229***	***0***	***38***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
3.0% Truck	0	263	0	0	588	0	0	0	0	0	0	0
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - P.M.)	***0***	***631***	***43***	***104***	***856***	***0***	***309***	***0***	***51***	***0***	***0***	***0***

Sage Rd / Driveway 'C'

(8)

3.7% Truck

	0.83			0.83			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - A.M.)	***0***	***910***	***35***	***0***	***854***	***0***	***0***	***0***	***19***	***0***	***0***	***0***

	0.95			0.95			0.85			0.85		PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2030 (BUILD - P.M.)	***0***	***639***	***43***	***0***	***960***	***0***	***0***	***0***	***26***	***0***	***0***	***0***

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2030) - 100% Development

INTERSECTION: **Summary**

Driveway "D" / Unser Blvd

(9)

3.7% Truck

	0.85			0.85			0.87			0.87			PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	0	0	0	0	0	0	664	0	0	510	0	
2030 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,546*	*0*	*0*	*1,140*	*0*	
2030 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,546***	***112***	***0***	***1,140***	***0***	

	0.85			0.85			0.91			0.91			PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	0	0	0	0	0	0	486	0	0	688	0	
2030 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,284*	*0*	*0*	*1,713*	*0*	
2030 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,284***	***139***	***0***	***1,713***	***0***	

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Horizon Year **2030**

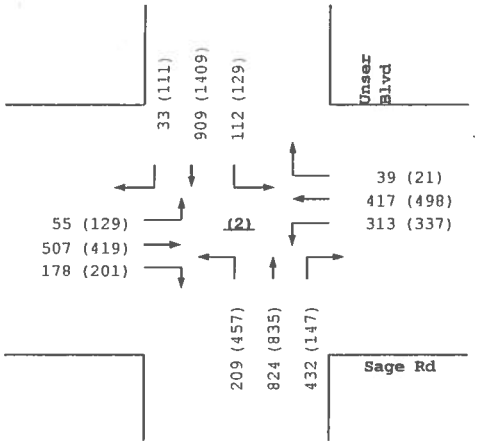
Growth Rates

	1.60%			11.72%			4.79%			10.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	6	119	45	193	268	28	100	320	211	68	568	13
Subtotal	23	456	172	268	372	39	195	624	411	99	826	19
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***55***	***507***	***178***	***313***	***417***	***39***	***209***	***824***	***432***	***112***	***909***	***33***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	63	64	0	0	0	71	0	0
Total AM Peak Hour BUILD Volumes	**55**	**576**	**178**	**415**	**480**	**103**	**209**	**824**	**432**	**183**	**909**	**33**

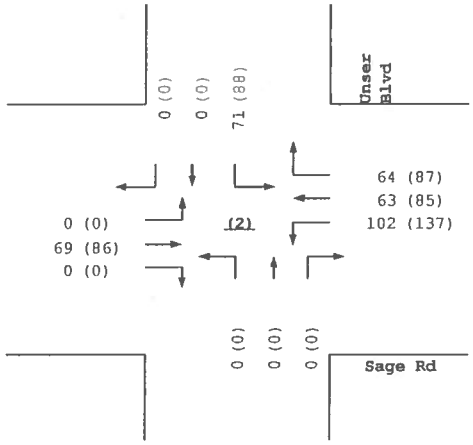
	2.12%			0.27%			7.00%			13.55%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	10	79	54	12	22	1	253	347	77	95	906	54
Subtotal	31	249	170	213	386	21	417	572	127	127	1,210	72
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***129***	***419***	***201***	***337***	***498***	***21***	***457***	***835***	***147***	***129***	***1,409***	***111***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*20.59%*	*21.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	85	87	0	0	0	88	0	0
Total PM Peak Hour BUILD Volumes	**129**	**505**	**201**	**474**	**583**	**108**	**457**	**835**	**147**	**217**	**1,409**	**111**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

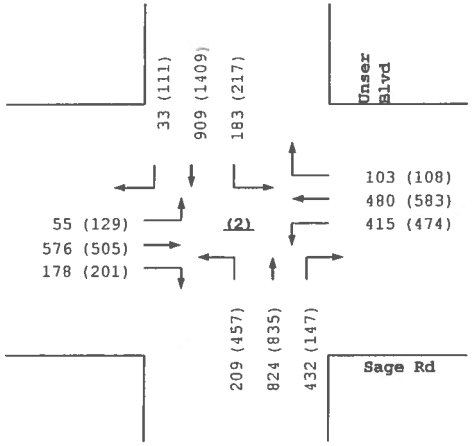
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts 2008

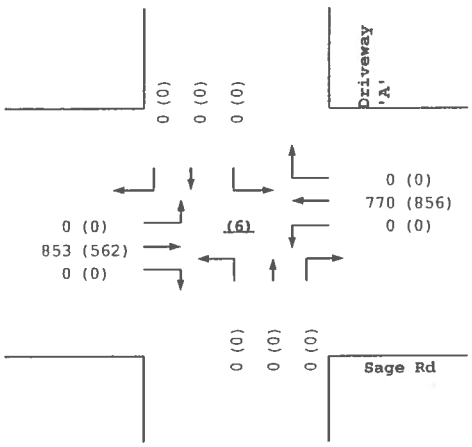
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	70	70	0	229	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**923**	**70**	**0**	**999**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

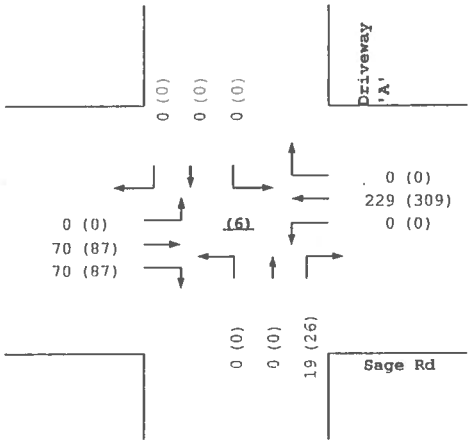
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	87	0	309	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**649**	**87**	**0**	**1,165**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

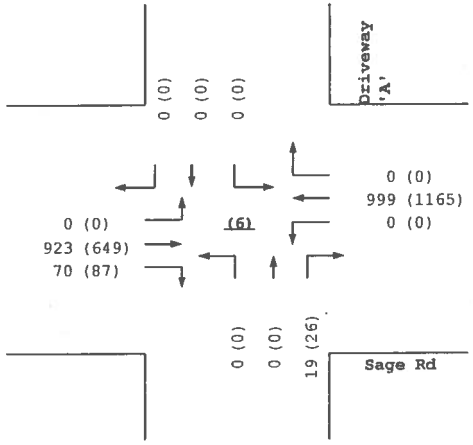
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

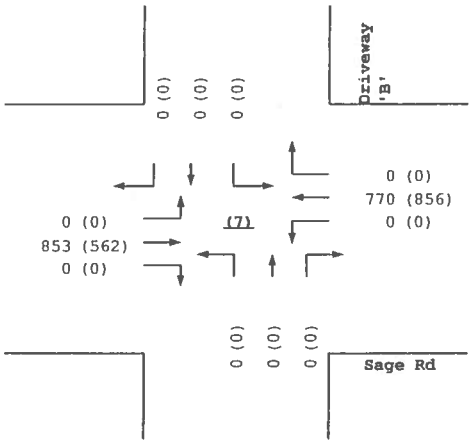
Horizon Year **2030**

	Growth Rates	1.60%			11.72%			3.00%			3.00%		
		Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth		0	200	0	0	490	0	0	0	0	0	0	0
Subtotal		0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights		0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development		0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below		0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	54	35	84	0	0	229	0	38	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**907**	**35**	**84**	**770**	**0**	**229**	**0**	**38**	**0**	**0**	**0**

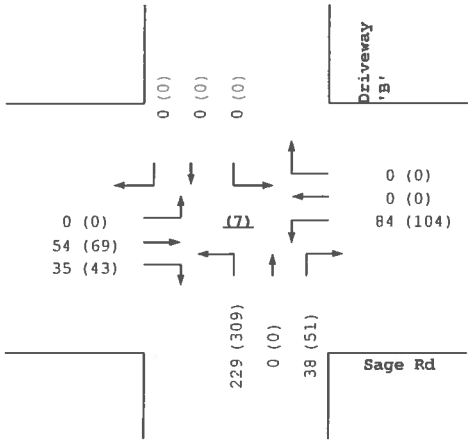
		2.12%			0.27%			3.00%			3.00%		
		Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth		0	118	0	0	35	0	0	0	0	0	0	0
Subtotal		0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights		0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development		0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below		0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)		***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.07%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	69	43	104	0	0	309	0	51	0	0	0
Total PM Peak Hour BUILD Volumes		**0**	**631**	**43**	**104**	**856**	**0**	**309**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

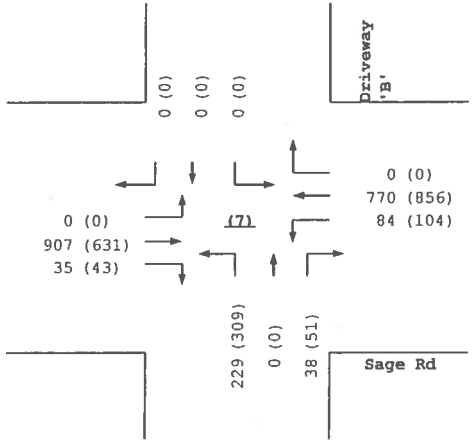
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Sage Rd / Driveway 'C'

INTERSECTION: E-W Street: **Sage Rd** (8)

N-S Street: **Driveway 'C'**

Year of Existing Counts 2008

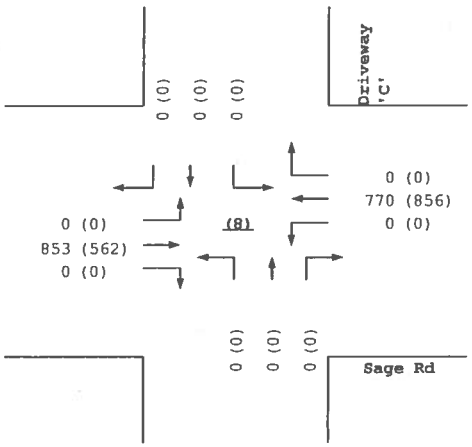
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	57	35	0	84	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**910**	**35**	**0**	**854**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

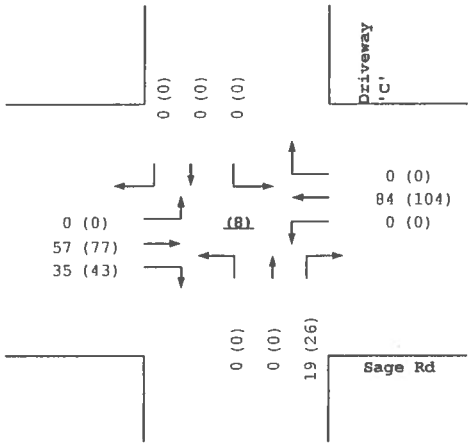
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	77	43	0	104	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**639**	**43**	**0**	**960**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

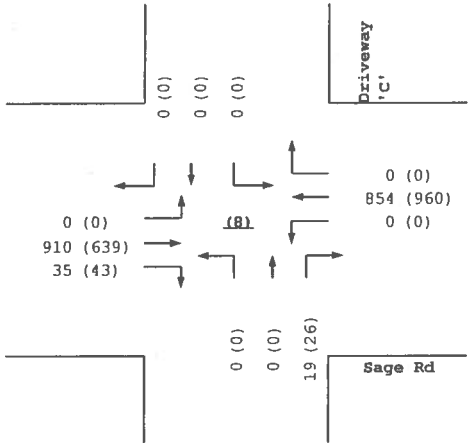
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'C'

Sage / Unser Commercial Development (SE Corner) - CASE Y1

Projected Turning Movements Worksheet

Driveway "D" / Unser Blvd

INTERSECTION: E-W Street: **Driveway "D"** (9)

N-S Street: **Unser Blvd**

NO EXITING TRAFFIC BECAUSE DRIVE IS RIGHT-IN ONLY

Year of Existing Counts 2008

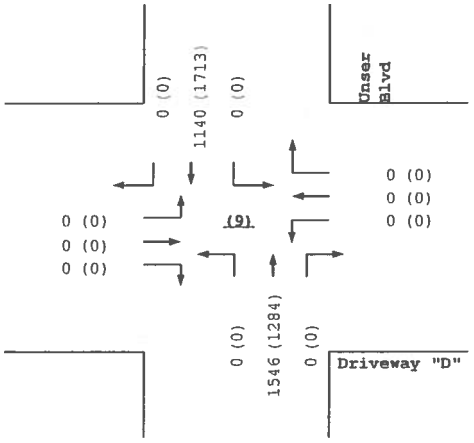
Horizon Year **2030**

Growth Rates	3.00%			3.00%			5.40%			5.40%		
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	599	0	0	460	0
Background Traffic Growth	0	0	0	0	0	0	0	712	0	0	546	0
Subtotal	0	0	0	0	0	0	0	1,311	0	0	1,006	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	172	0	0	74	0
Greg Sanchez Development	0	0	0	0	0	0	0	8	0	0	5	0
Previous development from below	0	0	0	0	0	0	0	55	0	0	55	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,546***	***0***	***0***	***1,140***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	0	0	0	112	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,546**	**112**	**0**	**1,140**	**0**

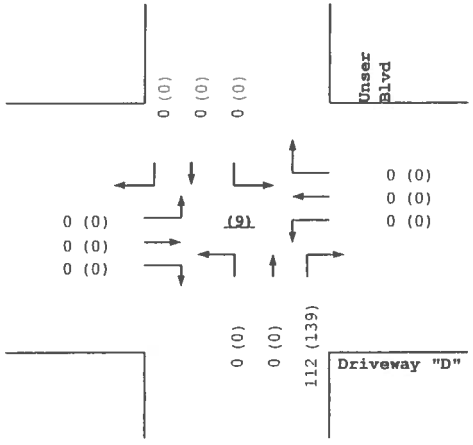
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	439	0	0	621	0
Background Traffic Growth	0	0	0	0	0	0	0	522	0	0	738	0
Subtotal	0	0	0	0	0	0	0	961	0	0	1,359	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	217	0	0	182	0
Greg Sanchez Development	0	0	0	0	0	0	0	24	0	0	26	0
Previous development from below	0	0	0	0	0	0	0	82	0	0	146	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,284***	***0***	***0***	***1,713***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	0	0	0	139	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,284**	**139**	**0**	**1,713**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

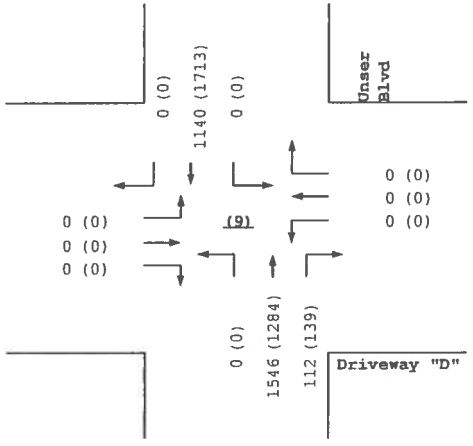
2030
NO BUILD



Trips



2030
BUILD



Driveway "D" / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2030) - 100% Development

INTERSECTION: **Summary**

Sage Rd / Unser Blvd

(2)	0.78			0.83			0.87			0.76			PHF
3.7% Truck	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	18	348	131	93	128	14	104	333	219	37	310	7	
2030 (NO BUILD - A.M.)	*55*	*507*	*178*	*313*	*417*	*39*	*209*	*824*	*432*	*112*	*909*	*33*	
2030 (BUILD - A.M.)	***55***	***576***	***178***	***415***	***430***	***52***	***259***	***875***	***432***	***183***	***909***	***33***	

	0.93			0.95			0.91			0.95			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	22	177	121	202	366	20	187	257	57	41	386	23	
2030 (NO BUILD - P.M.)	*129*	*419*	*201*	*337*	*498*	*21*	*457*	*835*	*147*	*129*	*1,409*	*111*	
2030 (BUILD - P.M.)	***129***	***505***	***201***	***474***	***515***	***38***	***525***	***904***	***147***	***217***	***1,409***	***111***	

Sage Rd / Driveway 'A'

(6)	0.83			0.83			0.85			0.85			PHF
3.7% Truck	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***923***	***70***	***0***	***897***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***649***	***87***	***0***	***1,028***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage Rd / Driveway 'B'

(7)	0.83			0.83			0.85			0.85			PHF
3.7% Truck	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3.0% Truck	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***907***	***35***	***84***	***770***	***0***	***127***	***0***	***38***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3.0% Truck	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***631***	***43***	***104***	***856***	***0***	***172***	***0***	***51***	***0***	***0***	***0***	

Sage Rd / Driveway 'C'

(8)	0.83			0.83			0.85			0.85			PHF
3.7% Truck	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	586	0	0	235	0	0	0	0	0	0	0	
2030 (NO BUILD - A.M.)	*0*	*853*	*0*	*0*	*770*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - A.M.)	***0***	***910***	***35***	***0***	***854***	***0***	***0***	***0***	***19***	***0***	***0***	***0***	

	0.95			0.95			0.85			0.85			PHF
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2010)	0	263	0	0	588	0	0	0	0	0	0	0	
2030 (NO BUILD - P.M.)	*0*	*562*	*0*	*0*	*856*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2030 (BUILD - P.M.)	***0***	***639***	***43***	***0***	***960***	***0***	***0***	***0***	***26***	***0***	***0***	***0***	

Sage / Unser Commercial Devlopment (SE Corner) - CASE Y2

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2030) - 100% Development

INTERSECTION: **Summary**

Driveway "D" / Unser Blvd

(9)

3.7% Truck

	0.85			0.85			0.87			0.87		PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	0	0	0	0	0	0	664	0	0	510	0
2030 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,546*	*0*	*0*	*1,140*	*0*
2030 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***102***	***0***	***1,546***	***112***	***0***	***1,140***	***0***

	0.85			0.85			0.91			0.91		PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2010)	0	0	0	0	0	0	0	486	0	0	688	0
2030 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,284*	*0*	*0*	*1,713*	*0*
2030 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***137***	***0***	***1,284***	***139***	***0***	***1,713***	***0***

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Unser Blvd

INTERSECTION: E-W Street: **Sage Rd** (2)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Horizon Year **2030**

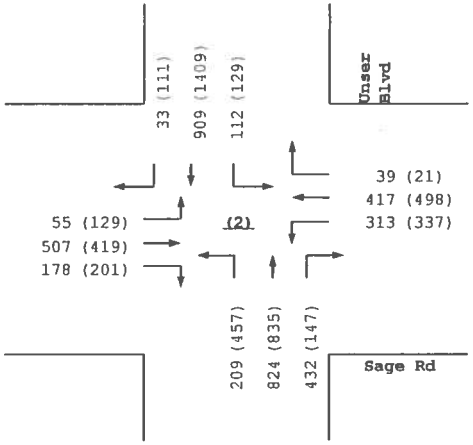
Growth Rates

	1.60%			11.72%			4.79%			10.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	337	127	75	104	11	95	304	200	31	258	6
Background Traffic Growth	6	119	45	193	268	28	100	320	211	68	568	13
Subtotal	23	456	172	268	372	39	195	624	411	99	826	19
Anderson Hills / Anderson Heights	0	0	0	3	0	0	0	155	17	0	71	0
Greg Sanchez Development	5	5	5	0	9	0	8	0	0	0	0	8
Previous development from below	27	46	1	42	36	0	6	45	4	13	12	6
Subtotal (NO BUILD - A.M.)	***55***	***507***	***178***	***313***	***417***	***39***	***209***	***824***	***432***	***112***	***909***	***33***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*4.12%*	*4.22%*	*16.47%*	*16.87%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	0	102	13	13	50	51	0	71	0	0
Total AM Peak Hour BUILD Volumes	**55**	**576**	**178**	**415**	**430**	**52**	**259**	**875**	**432**	**183**	**909**	**33**

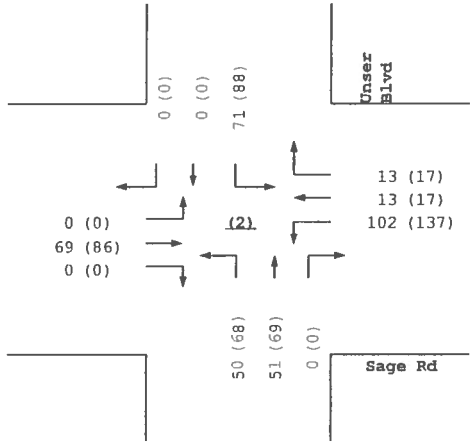
	2.12%			0.27%			7.00%			13.55%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	170	116	201	364	20	164	225	50	32	304	18
Background Traffic Growth	10	79	54	12	22	1	253	347	77	95	906	54
Subtotal	31	249	170	213	386	21	417	572	127	127	1,210	72
Anderson Hills / Anderson Heights	0	0	0	16	0	0	0	198	19	0	166	0
Greg Sanchez Development	25	23	26	0	22	0	24	0	0	0	0	23
Previous development from below	73	147	5	108	90	0	16	65	1	2	33	16
Subtotal (NO BUILD - P.M.)	***129***	***419***	***201***	***337***	***498***	***21***	***457***	***835***	***147***	***129***	***1,409***	***111***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.09%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*4.12%*	*4.22%*	*16.47%*	*16.87%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	86	0	137	17	17	68	69	0	88	0	0
Total PM Peak Hour BUILD Volumes	**129**	**505**	**201**	**474**	**515**	**38**	**525**	**904**	**147**	**217**	**1,409**	**111**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

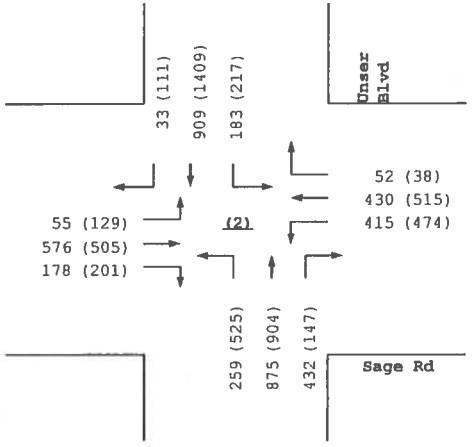
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Unser Blvd

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'A'

INTERSECTION: E-W Street: **Sage Rd** (6)

N-S Street: **Driveway 'A'**

Year of Existing Counts 2008

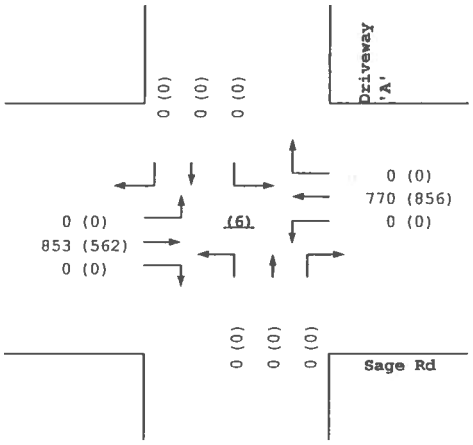
Horizon Year **2030**

Growth Rates	**1.60%**			**11.72%**			**3.00%**			**3.00%**		
	Eastbound (Sage Rd)			**Westbound (Sage Rd)**			**Northbound (Driveway 'A')**			**Southbound (Driveway 'A')**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	70	70	0	127	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**923**	**70**	**0**	**897**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

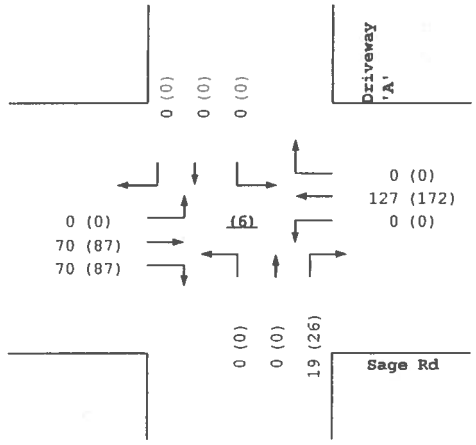
	2.12%			**0.27%**			**3.00%**			**3.00%**		
	Eastbound (Sage Rd)			**Westbound (Sage Rd)**			**Northbound (Driveway 'A')**			**Southbound (Driveway 'A')**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*20.84%*	*20.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	87	87	0	172	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**649**	**87**	**0**	**1,028**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

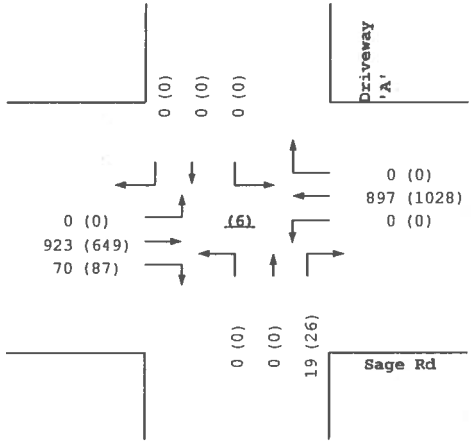
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'A'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'B'

INTERSECTION: E-W Street: **Sage Rd** (7)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2008

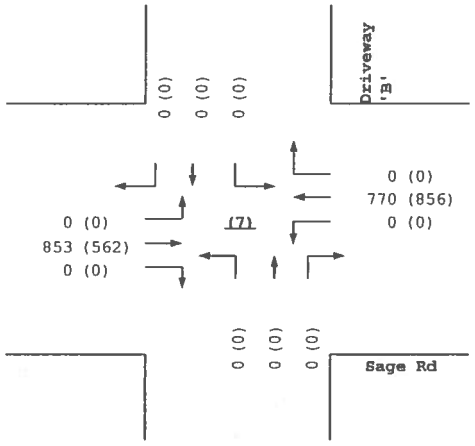
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	*0*	*0*	*0*
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	54	35	84	0	0	127	0	38	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**907**	**35**	**84**	**770**	**0**	**127**	**0**	**38**	**0**	**0**	**0**

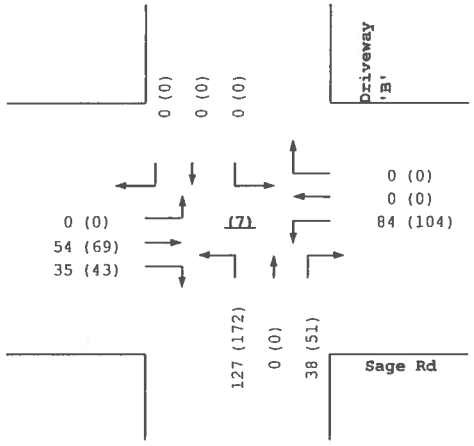
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	*0*	***0***	***0***	***0***	*0*	*0*	*0*
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.42%*	*10.42%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*12.47%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	69	43	104	0	0	172	0	51	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**631**	**43**	**104**	**856**	**0**	**172**	**0**	**51**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

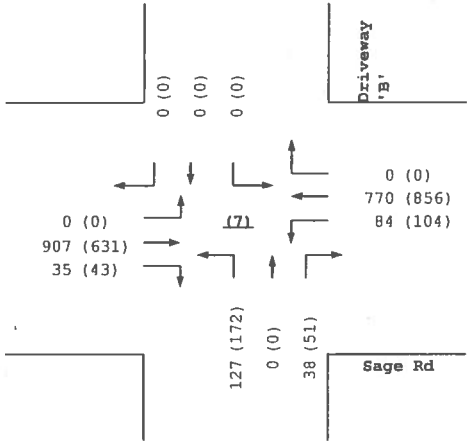
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'B'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Sage Rd / Driveway 'C'

INTERSECTION: E-W Street: **Sage Rd** (8)

N-S Street: **Driveway 'C'**

Year of Existing Counts 2008

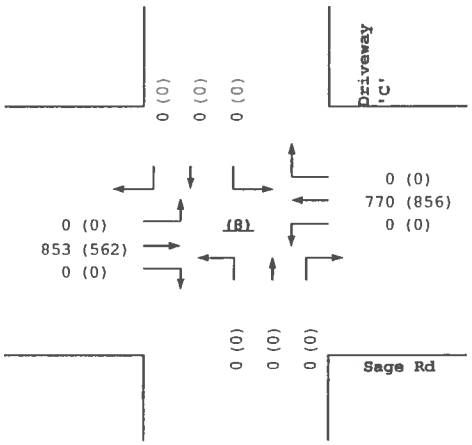
Horizon Year **2030**

Growth Rates	1.60%			11.72%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	568	0	0	190	0	0	0	0	0	0	0
Background Traffic Growth	0	200	0	0	490	0	0	0	0	0	0	0
Subtotal	0	768	0	0	680	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	17	0	0	3	0	0	0	0	0	0	0
Greg Sanchez Development	0	5	0	0	9	0	0	0	0	0	0	0
Previous development from below	0	63	0	0	78	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***853***	***0***	***0***	***770***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	57	35	0	84	0	0	0	19	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**910**	**35**	**0**	**854**	**0**	**0**	**0**	**19**	**0**	**0**	**0**

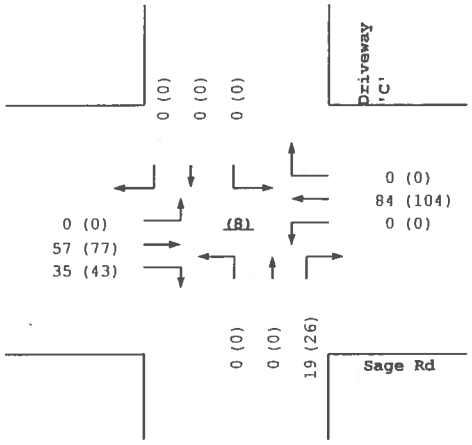
	2.12%			0.27%			3.00%			3.00%		
	Eastbound (Sage Rd)			Westbound (Sage Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	252	0	0	585	0	0	0	0	0	0	0
Background Traffic Growth	0	118	0	0	35	0	0	0	0	0	0	0
Subtotal	0	370	0	0	620	0	0	0	0	0	0	0
Anderson Hills / Anderson Heights	0	19	0	0	16	0	0	0	0	0	0	0
Greg Sanchez Development	0	23	0	0	22	0	0	0	0	0	0	0
Previous development from below	0	150	0	0	198	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***562***	***0***	***0***	***856***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*10.42%*	*0.00%*	*24.95%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*18.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.24%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	77	43	0	104	0	0	0	26	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**639**	**43**	**0**	**960**	**0**	**0**	**0**	**26**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

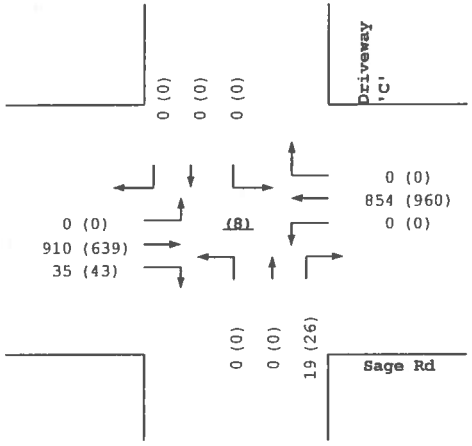
2030
NO BUILD



Trips



2030
BUILD



Sage Rd / Driveway 'C'

Sage / Unser Commercial Development (SE Corner) - CASE Y2

Projected Turning Movements Worksheet

Driveway "D" / Unser Blvd

INTERSECTION: E-W Street: **Driveway "D"** (9)

N-S Street: **Unser Blvd**

NO EXITING TRAFFIC BECAUSE DRIVE IS RIGHT-IN ONLY

Year of Existing Counts 2008

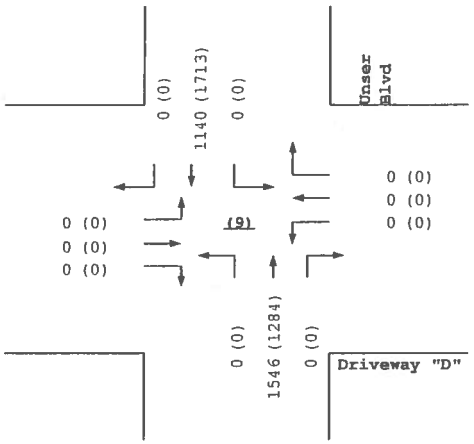
Horizon Year **2030**

	Growth Rates	3.00%			3.00%			5.40%			5.40%		
		Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	0	599	0	0	460	0
Background Traffic Growth		0	0	0	0	0	0	0	712	0	0	546	0
Subtotal		0	0	0	0	0	0	0	1,311	0	0	1,006	0
Anderson Hills / Anderson Heights		0	0	0	0	0	0	0	172	0	0	74	0
Greg Sanchez Development		0	0	0	0	0	0	0	8	0	0	5	0
Previous development from below		0	0	0	0	0	0	0	55	0	0	55	0
Subtotal (NO BUILD - A.M.)		***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,546***	***0***	***0***	***1,140***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.34%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	0	0	102	0	0	112	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**0**	**0**	**0**	**0**	**102**	**0**	**1,546**	**112**	**0**	**1,140**	**0**

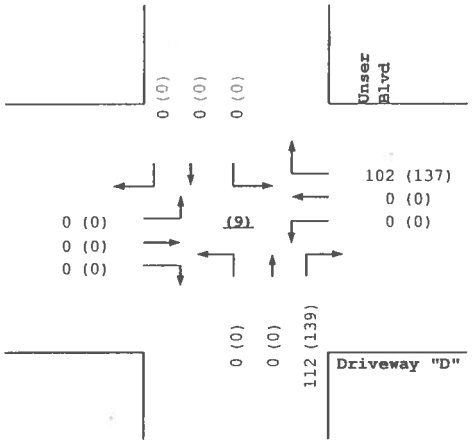
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	439	0	0	621	0
Background Traffic Growth	0	0	0	0	0	0	0	522	0	0	738	0
Subtotal	0	0	0	0	0	0	0	961	0	0	1,359	0
Anderson Hills / Anderson Heights	0	0	0	0	0	0	0	217	0	0	182	0
Greg Sanchez Development	0	0	0	0	0	0	0	24	0	0	26	0
Previous development from below	0	0	0	0	0	0	0	82	0	0	146	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,284***	***0***	***0***	***1,713***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.39%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.34%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	137	0	0	139	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**137**	**0**	**1,284**	**139**	**0**	**1,713**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**335**	**305**	A.M.	100% Commercial Development
	416	**411**	P.M.	

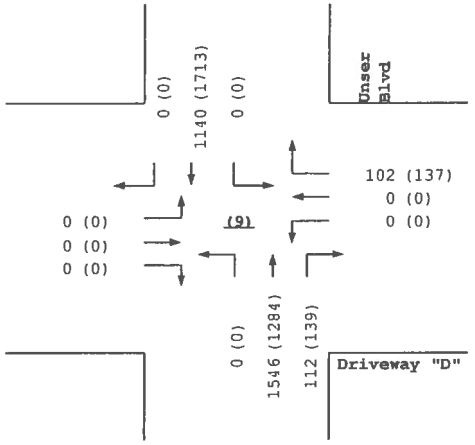
2030
NO BUILD



Trips



2030
BUILD



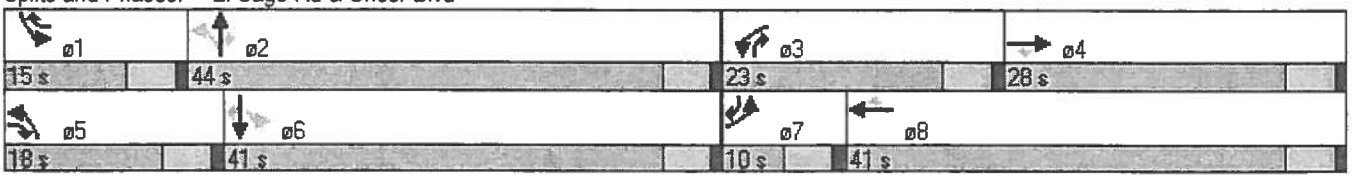
Driveway "D" / Unser Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	480	103	209	824	544	183	909	33
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	28.0	18.0	23.0	41.0	15.0	18.0	44.0	23.0	15.0	41.0	10.0
Total Split (%)	9.1%	25.5%	16.4%	20.9%	37.3%	13.6%	16.4%	40.0%	20.9%	13.6%	37.3%	9.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	5.0	22.4	39.9	17.7	35.1	50.0	52.5	40.0	62.7	47.2	37.4	47.4
Actuated g/C Ratio	0.05	0.20	0.36	0.16	0.32	0.45	0.48	0.36	0.57	0.43	0.34	0.43
v/c Ratio	0.39	0.90	0.34	0.84	0.48	0.15	0.85	0.70	0.64	0.75	0.83	0.05
Control Delay	58.7	59.0	24.5	60.0	31.5	9.8	54.0	33.8	18.0	36.7	41.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	59.0	24.5	60.0	31.5	9.8	54.0	33.8	18.0	36.7	41.1	6.4
LOS	E	E	C	E	C	A	D	C	B	D	D	A
Approach Delay		51.4			41.1			31.0			39.3	
Approach LOS		D			D			C			D	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 39.0 — Intersection LOS: D
Intersection Capacity Utilization 81.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



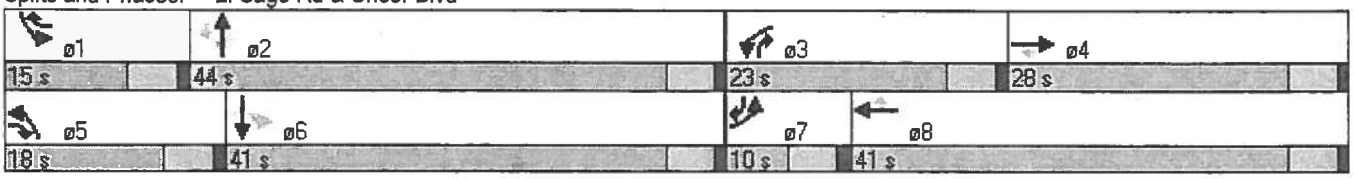
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	480	103	209	824	544	183	909	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.10	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	184	3505	1568	318	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	640	198	461	533	114	227	896	591	199	988	36
RTOR Reduction (vph)	0	0	13	0	0	33	0	0	33	0	0	22
Lane Group Flow (vph)	61	640	185	461	533	81	227	896	558	199	988	14
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.0	22.4	34.9	17.7	35.1	44.9	52.6	40.1	57.8	47.2	37.4	42.4
Effective Green, g (s)	5.0	22.4	34.9	17.7	35.1	44.9	52.6	40.1	57.8	47.2	37.4	42.4
Actuated g/C Ratio	0.05	0.20	0.32	0.16	0.32	0.41	0.48	0.36	0.53	0.43	0.34	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	155	714	569	547	1118	711	266	1278	895	264	1192	676
v/s Ratio Prot	0.02	c0.18	0.04	c0.14	0.15	0.01	c0.10	0.26	0.10	0.07	0.28	0.00
v/s Ratio Perm			0.08			0.04	c0.31		0.26	0.26		0.01
v/c Ratio	0.39	0.90	0.33	0.84	0.48	0.11	0.85	0.70	0.62	0.75	0.83	0.02
Uniform Delay, d1	51.0	42.7	28.6	44.8	30.1	20.2	27.2	29.8	18.4	22.2	33.4	20.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	13.9	0.3	11.3	0.3	0.1	22.4	3.2	1.4	11.5	6.7	0.0
Delay (s)	52.7	56.5	28.9	56.1	30.4	20.3	49.6	33.1	19.8	33.8	40.1	20.9
Level of Service	D	E	C	E	C	C	D	C	B	C	D	C
Approach Delay (s)		50.2			40.1			30.7			38.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	38.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	480	103	209	824	432	183	909	33
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	28.0	18.0	23.0	41.0	15.0	18.0	44.0	23.0	15.0	41.0	10.0
Total Split (%)	9.1%	25.5%	16.4%	20.9%	37.3%	13.6%	16.4%	40.0%	20.9%	13.6%	37.3%	9.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	5.0	22.4	39.9	17.5	34.9	49.8	52.7	40.2	62.7	47.4	37.6	47.6
Actuated g/C Ratio	0.05	0.20	0.36	0.16	0.32	0.45	0.48	0.37	0.57	0.43	0.34	0.43
v/c Ratio	0.39	0.90	0.34	0.85	0.48	0.15	0.85	0.70	0.51	0.75	0.83	0.05
Control Delay	58.7	59.0	24.5	60.9	31.7	9.8	54.1	33.6	14.4	36.1	40.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	59.0	24.5	60.9	31.7	9.8	54.1	33.6	14.4	36.1	40.7	6.4
LOS	E	E	C	E	C	A	D	C	B	D	D	A
Approach Delay		51.4			41.6			30.9			39.0	
Approach LOS		D			D			C			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 39.2	Intersection LOS: D
Intersection Capacity Utilization 81.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	480	103	209	824	432	183	909	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.10	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	183	3505	1568	320	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	640	198	461	533	114	227	896	470	199	988	36
RTOR Reduction (vph)	0	0	13	0	0	33	0	0	33	0	0	22
Lane Group Flow (vph)	61	640	185	461	533	81	227	896	437	199	988	14
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.0	22.4	34.9	17.5	34.9	44.7	52.8	40.3	57.8	47.4	37.6	42.6
Effective Green, g (s)	5.0	22.4	34.9	17.5	34.9	44.7	52.8	40.3	57.8	47.4	37.6	42.6
Actuated g/C Ratio	0.05	0.20	0.32	0.16	0.32	0.41	0.48	0.37	0.53	0.43	0.34	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	155	714	569	541	1112	708	266	1284	895	265	1198	679
v/s Ratio Prot	0.02	c0.18	0.04	c0.14	0.15	0.01	c0.10	0.26	0.08	0.07	0.28	0.00
v/s Ratio Perm			0.08			0.04	c0.31		0.20	0.26		0.01
v/c Ratio	0.39	0.90	0.33	0.85	0.48	0.11	0.85	0.70	0.49	0.75	0.82	0.02
Uniform Delay, d1	51.0	42.7	28.6	45.0	30.2	20.3	27.2	29.7	16.7	22.1	33.2	20.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	13.9	0.3	12.3	0.3	0.1	22.4	3.2	0.4	11.3	6.5	0.0
Delay (s)	52.7	56.5	28.9	57.3	30.6	20.4	49.6	32.8	17.1	33.4	39.7	20.8
Level of Service	D	E	C	E	C	C	D	C	B	C	D	C
Approach Delay (s)		50.2			40.6			30.6			38.1	
Approach LOS		D			D			C			D	

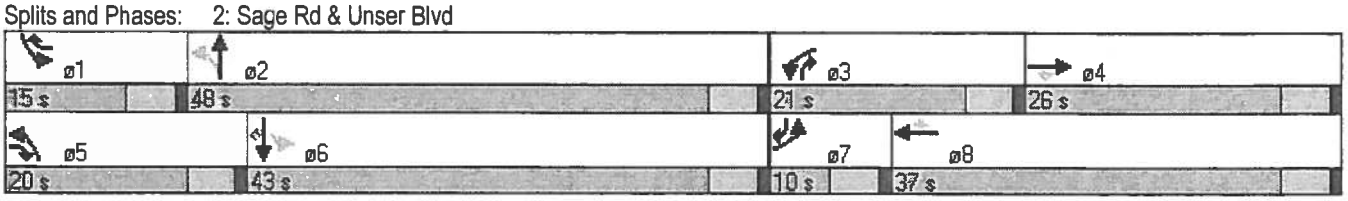
Intersection Summary			
HCM Average Control Delay	38.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	430	52	259	875	432	183	909	33
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	26.0	20.0	21.0	37.0	15.0	20.0	48.0	21.0	15.0	43.0	10.0
Total Split (%)	9.1%	23.6%	18.2%	19.1%	33.6%	13.6%	18.2%	43.6%	19.1%	13.6%	39.1%	9.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	5.0	21.0	40.8	16.0	32.0	46.8	58.0	43.2	64.2	48.0	38.2	48.2
Actuated g/C Ratio	0.05	0.19	0.37	0.15	0.29	0.43	0.53	0.39	0.58	0.44	0.35	0.44
v/c Ratio	0.39	0.96	0.33	0.93	0.47	0.08	0.93	0.69	0.50	0.74	0.81	0.05
Control Delay	58.7	70.3	23.9	73.6	33.9	5.3	64.6	31.1	13.3	33.8	39.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	70.3	23.9	73.6	33.9	5.3	64.6	31.1	13.3	33.8	39.1	6.0
LOS	E	E	C	E	C	A	E	C	B	C	D	A
Approach Delay		59.3			50.6			31.7			37.3	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 42.2 — Intersection LOS: D
Intersection Capacity Utilization 83.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



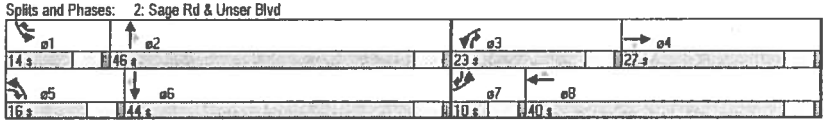
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	430	52	259	875	432	183	909	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.09	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	174	3505	1568	326	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	640	198	461	478	58	282	951	470	199	988	36
RTOR Reduction (vph)	0	0	14	0	0	36	0	0	34	0	0	22
Lane Group Flow (vph)	61	640	184	461	478	22	282	951	436	199	988	14
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.0	21.0	35.8	16.0	32.0	41.8	58.0	43.2	59.2	48.0	38.2	43.2
Effective Green, g (s)	5.0	21.0	35.8	16.0	32.0	41.8	58.0	43.2	59.2	48.0	38.2	43.2
Actuated g/C Ratio	0.05	0.19	0.33	0.15	0.29	0.38	0.53	0.39	0.54	0.44	0.35	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	155	669	582	495	1020	667	304	1377	915	269	1217	687
v/s Ratio Prot	0.02	c0.18	0.04	c0.14	0.14	0.00	c0.12	0.27	0.07	0.07	0.28	0.00
v/s Ratio Perm			0.07			0.01	c0.36		0.21	0.26		0.01
v/c Ratio	0.39	0.96	0.32	0.93	0.47	0.03	0.93	0.69	0.48	0.74	0.81	0.02
Uniform Delay, d1	51.0	44.0	27.9	46.5	32.0	21.4	31.0	27.8	15.8	21.5	32.6	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	24.3	0.3	24.4	0.3	0.0	32.9	2.9	0.4	10.2	6.0	0.0
Delay (s)	52.7	68.4	28.2	70.9	32.4	21.4	63.9	30.7	16.2	31.6	38.6	20.5
Level of Service	D	E	C	E	C	C	E	C	B	C	D	C
Approach Delay (s)		58.5			49.5			32.2			36.9	
Approach LOS		E			D			C			D	

Intersection Summary			
HCM Average Control Delay	41.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	430	52	259	875	432	183	909	33
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	27.0	16.0	23.0	40.0	14.0	16.0	46.0	23.0	14.0	44.0	10.0
Total Split (%)	9.1%	24.5%	14.5%	20.9%	36.4%	12.7%	14.5%	41.8%	20.9%	12.7%	40.0%	9.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	5.0	21.8	37.8	17.5	34.3	48.2	11.0	41.8	64.3	8.9	39.7	49.7
Actuated g/C Ratio	0.05	0.20	0.34	0.16	0.31	0.44	0.10	0.38	0.58	0.08	0.36	0.45
v/c Ratio	0.39	0.92	0.36	0.85	0.44	0.08	0.83	0.71	0.51	0.72	0.78	0.05
Control Delay	58.7	63.6	25.6	60.9	31.5	6.1	69.3	32.9	15.2	64.8	36.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	63.6	25.6	60.9	31.5	6.1	69.3	32.9	15.2	64.8	36.7	5.8
LOS	E	E	C	E	C	A	E	C	B	E	D	A
Approach Delay		54.9			43.6			34.1			40.4	
Approach LOS		D			D			C			D	

Intersection Summary			
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 41.5		Intersection LOS: D	
Intersection Capacity Utilization 76.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	576	178	415	430	52	259	875	432	183	909	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3506	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	640	198	461	478	58	282	951	470	199	988	36
RTOR Reduction (vph)	0	0	18	0	0	32	0	0	10	0	0	21
Lane Group Flow (vph)	61	640	180	461	478	26	282	951	460	199	988	15
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.0	21.8	32.8	17.5	34.3	43.2	11.0	41.8	59.3	8.9	39.7	44.7
Effective Green, g (s)	5.0	21.8	32.8	17.5	34.3	43.2	11.0	41.8	59.3	8.9	39.7	44.7
Actuated g/C Ratio	0.05	0.20	0.30	0.16	0.31	0.39	0.10	0.38	0.54	0.08	0.36	0.41
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	155	695	539	541	1093	687	340	1332	917	275	1265	708
v/s Ratio Prot	0.02	c0.18	0.03	c0.14	0.14	0.00	c0.08	0.27	0.08	0.06	c0.28	0.00
v/s Ratio Perm			0.08			0.01			0.21			0.01
v/c Ratio	0.39	0.92	0.33	0.85	0.44	0.04	0.83	0.71	0.50	0.72	0.78	0.02
Uniform Delay, d1	51.0	43.3	30.1	45.0	30.2	20.6	48.6	29.0	16.0	49.3	31.3	19.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	17.6	0.4	12.3	0.3	0.0	15.3	3.3	0.4	9.1	4.8	0.0
Delay (s)	52.7	60.8	30.5	57.3	30.4	20.6	63.9	32.3	16.4	58.4	36.1	19.6
Level of Service	D	E	C	E	C	C	E	C	B	E	D	B
Approach Delay (s)		53.6			42.3			33.2			39.3	
Approach LOS		D			D			C			D	

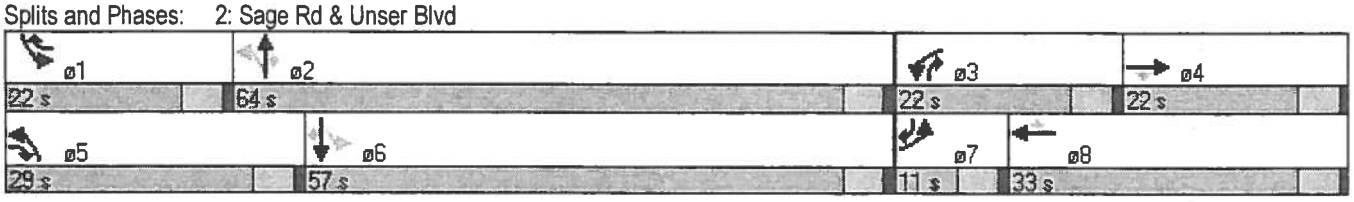
Intersection Summary					
HCM Average Control Delay	40.4	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.83				
Actuated Cycle Length (s)	110.0	Sum of lost time (s)		20.0	
Intersection Capacity Utilization	76.9%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	583	108	457	835	286	217	1409	111
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	11.0	22.0	29.0	22.0	33.0	22.0	29.0	64.0	22.0	22.0	57.0	11.0
Total Split (%)	8.5%	16.9%	22.3%	16.9%	25.4%	16.9%	22.3%	49.2%	16.9%	16.9%	43.8%	8.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	6.0	17.0	46.0	17.0	28.0	46.2	81.0	62.8	84.8	65.2	52.0	63.0
Actuated g/C Ratio	0.05	0.13	0.35	0.13	0.22	0.36	0.62	0.48	0.65	0.50	0.40	0.48
v/c Ratio	0.91	1.22	0.40	1.18	0.86	0.20	1.34	0.55	0.30	0.65	1.09	0.16
Control Delay	112.8	165.9	33.5	151.8	61.5	14.0	202.0	25.5	5.9	21.5	90.8	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.8	165.9	33.5	151.8	61.5	14.0	202.0	25.5	5.9	21.5	90.8	14.4
LOS	F	F	C	F	E	B	F	C	A	C	F	B
Approach Delay		125.9			93.9			73.1			77.3	
Approach LOS		F			F			E			E	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 87.4 — Intersection LOS: F
Intersection Capacity Utilization 108.4% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	583	108	457	835	286	217	1409	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.07	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	129	3505	1568	467	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	143	561	223	527	648	120	508	928	318	236	1532	121
RTOR Reduction (vph)	0	0	3	0	0	45	0	0	58	0	0	17
Lane Group Flow (vph)	143	561	220	527	648	75	508	928	260	236	1532	104
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.0	17.0	41.0	17.0	28.0	41.2	81.0	62.8	79.8	65.2	52.0	58.0
Effective Green, g (s)	6.0	17.0	41.0	17.0	28.0	41.2	81.0	62.8	79.8	65.2	52.0	58.0
Actuated g/C Ratio	0.05	0.13	0.32	0.13	0.22	0.32	0.62	0.48	0.61	0.50	0.40	0.45
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	157	458	555	445	755	557	380	1693	1023	365	1402	760
v/s Ratio Prot	0.04	c0.16	0.07	c0.16	0.18	0.01	c0.25	0.26	0.03	0.07	0.44	0.01
v/s Ratio Perm			0.07			0.03	c0.58		0.13	0.26		0.06
v/c Ratio	0.91	1.22	0.40	1.18	0.86	0.13	1.34	0.55	0.25	0.65	1.09	0.14
Uniform Delay, d1	61.7	56.5	34.8	56.5	49.1	31.7	43.6	23.6	11.5	19.2	39.0	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	46.5	119.4	0.5	103.7	9.5	0.1	168.5	1.3	0.1	3.9	53.5	0.1
Delay (s)	108.2	175.9	35.3	160.2	58.6	31.8	212.1	24.9	11.6	23.1	92.5	21.3
Level of Service	F	F	D	F	E	C	F	C	B	C	F	C
Approach Delay (s)		131.6			97.5			76.7			79.3	
Approach LOS		F			F			E			E	

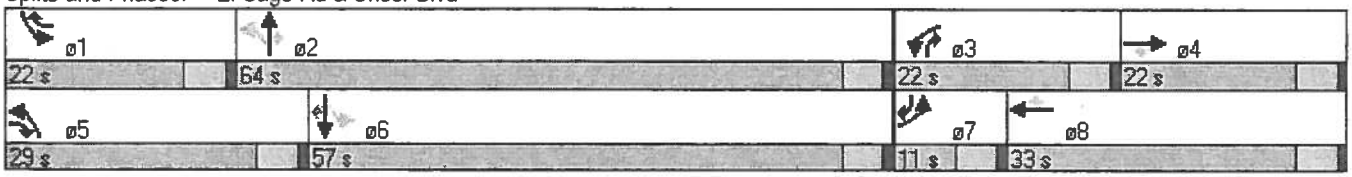
Intersection Summary			
HCM Average Control Delay	90.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	108.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	583	108	457	835	147	217	1409	111
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	11.0	22.0	29.0	22.0	33.0	22.0	29.0	64.0	22.0	22.0	57.0	11.0
Total Split (%)	8.5%	16.9%	22.3%	16.9%	25.4%	16.9%	22.3%	49.2%	16.9%	16.9%	43.8%	8.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	6.0	17.0	46.0	17.0	28.0	46.2	81.0	62.8	84.8	65.2	52.0	63.0
Actuated g/C Ratio	0.05	0.13	0.35	0.13	0.22	0.36	0.62	0.48	0.65	0.50	0.40	0.48
v/c Ratio	0.91	1.22	0.40	1.18	0.86	0.20	1.34	0.55	0.15	0.65	1.09	0.16
Control Delay	112.8	165.9	33.5	151.8	61.5	14.0	202.0	25.5	2.1	21.5	90.8	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.8	165.9	33.5	151.8	61.5	14.0	202.0	25.5	2.1	21.5	90.8	14.4
LOS	F	F	C	F	E	B	F	C	A	C	F	B
Approach Delay		125.9			93.9			79.2			77.3	
Approach LOS		F			F			E			E	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 89.5 — Intersection LOS: F
Intersection Capacity Utilization 108.4% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	583	108	457	835	147	217	1409	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.07	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	129	3505	1568	467	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	143	561	223	527	648	120	508	928	163	236	1532	121
RTOR Reduction (vph)	0	0	3	0	0	45	0	0	58	0	0	17
Lane Group Flow (vph)	143	561	220	527	648	75	508	928	105	236	1532	104
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.0	17.0	41.0	17.0	28.0	41.2	81.0	62.8	79.8	65.2	52.0	58.0
Effective Green, g (s)	6.0	17.0	41.0	17.0	28.0	41.2	81.0	62.8	79.8	65.2	52.0	58.0
Actuated g/C Ratio	0.05	0.13	0.32	0.13	0.22	0.32	0.62	0.48	0.61	0.50	0.40	0.45
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	157	458	555	445	755	557	380	1693	1023	365	1402	760
v/s Ratio Prot	0.04	c0.16	0.07	c0.16	0.18	0.01	c0.25	0.26	0.01	0.07	0.44	0.01
v/s Ratio Perm			0.07			0.03	c0.58		0.05	0.26		0.06
v/c Ratio	0.91	1.22	0.40	1.18	0.86	0.13	1.34	0.55	0.10	0.65	1.09	0.14
Uniform Delay, d1	61.7	56.5	34.8	56.5	49.1	31.7	43.6	23.6	10.3	19.2	39.0	21.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	46.5	119.4	0.5	103.7	9.5	0.1	168.5	1.3	0.0	3.9	53.5	0.1
Delay (s)	108.2	175.9	35.3	160.2	58.6	31.8	212.1	24.9	10.4	23.1	92.5	21.3
Level of Service	F	F	D	F	E	C	F	C	B	C	F	C
Approach Delay (s)		131.6			97.5			82.9			79.3	
Approach LOS		F			F			F			E	

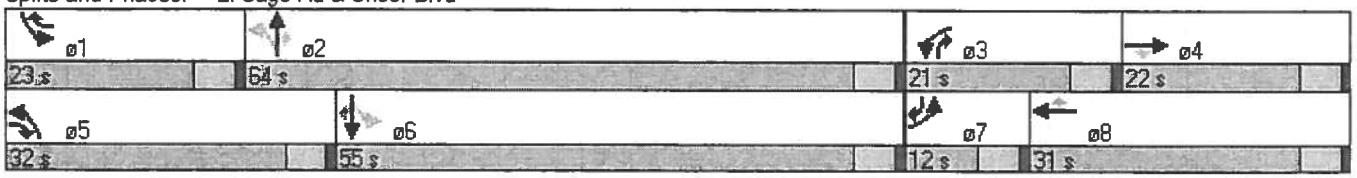
Intersection Summary			
HCM Average Control Delay	92.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	108.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	515	38	525	904	147	217	1409	111
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	22.0	32.0	21.0	31.0	23.0	32.0	64.0	21.0	23.0	55.0	12.0
Total Split (%)	9.2%	16.9%	24.6%	16.2%	23.8%	17.7%	24.6%	49.2%	16.2%	17.7%	42.3%	9.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	7.0	17.0	49.0	16.0	26.0	44.4	82.0	63.6	84.6	63.4	50.0	62.0
Actuated g/C Ratio	0.05	0.13	0.38	0.12	0.20	0.34	0.63	0.49	0.65	0.49	0.38	0.48
v/c Ratio	0.78	1.22	0.38	1.26	0.82	0.07	1.38	0.59	0.15	0.68	1.14	0.16
Control Delay	88.3	165.9	31.2	181.0	60.2	7.9	220.0	26.0	2.1	23.9	108.3	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.3	165.9	31.2	181.0	60.2	7.9	220.0	26.0	2.1	23.9	108.3	14.6
LOS	F	F	C	F	E	A	F	C	A	C	F	B
Approach Delay		121.5			114.1			88.4			91.8	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.38
Intersection Signal Delay: 100.0 — Intersection LOS: F
Intersection Capacity Utilization 112.2% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: Sage Rd & Unser Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	515	38	525	904	147	217	1409	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.07	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	134	3505	1568	432	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	143	561	223	527	572	42	583	1004	163	236	1532	121
RTOR Reduction (vph)	0	0	3	0	0	29	0	0	59	0	0	18
Lane Group Flow (vph)	143	561	220	527	572	13	583	1004	104	236	1532	103
Turn Type	Prot		pm+ov	Prot		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.0	17.0	44.0	16.0	26.0	39.4	82.0	63.6	79.6	63.4	50.0	57.0
Effective Green, g (s)	7.0	17.0	44.0	16.0	26.0	39.4	82.0	63.6	79.6	63.4	50.0	57.0
Actuated g/C Ratio	0.05	0.13	0.34	0.12	0.20	0.30	0.63	0.49	0.61	0.49	0.38	0.44
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	183	458	591	418	701	536	421	1715	1020	347	1348	748
v/s Ratio Prot	0.04	c0.16	0.08	c0.16	0.16	0.00	c0.29	0.29	0.01	0.07	0.44	0.01
v/s Ratio Perm			0.06			0.01	c0.59		0.05	0.26		0.06
v/c Ratio	0.78	1.22	0.37	1.26	0.82	0.02	1.38	0.59	0.10	0.68	1.14	0.14
Uniform Delay, d1	60.7	56.5	32.6	57.0	49.7	31.8	42.9	23.8	10.4	20.3	40.0	21.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.2	119.4	0.4	135.4	7.3	0.0	187.4	1.5	0.0	5.4	71.0	0.1
Delay (s)	79.9	175.9	33.0	192.4	57.0	31.8	230.3	25.2	10.5	25.7	111.0	21.9
Level of Service	E	F	C	F	E	C	F	C	B	C	F	C
Approach Delay (s)		126.7			118.6			92.2			94.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	103.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	515	38	525	904	147	217	1409	111
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	23.0	25.0	23.0	34.0	20.0	25.0	64.0	23.0	20.0	59.0	12.0
Total Split (%)	9.2%	17.7%	19.2%	17.7%	26.2%	15.4%	19.2%	49.2%	17.7%	15.4%	45.4%	9.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	7.0	18.0	43.0	18.0	29.0	47.5	20.0	60.5	83.5	13.5	54.0	66.0
Actuated g/C Ratio	0.05	0.14	0.33	0.14	0.22	0.37	0.15	0.47	0.64	0.10	0.42	0.51
v/c Ratio	0.78	1.16	0.43	1.12	0.73	0.07	1.11	0.62	0.16	0.67	1.05	0.15
Control Delay	88.3	140.4	36.0	128.5	53.2	7.8	124.4	28.3	7.9	65.7	75.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.3	140.4	36.0	128.5	53.2	7.8	124.4	28.3	7.9	65.7	75.8	14.3
LOS	F	F	D	F	D	A	F	C	A	E	E	B
Approach Delay		107.2			86.3			58.4			70.6	
Approach LOS		F			F			E			E	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 76.0		Intersection LOS: E	
Intersection Capacity Utilization 98.1%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 2: Sage Rd & Unser Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	505	201	474	515	38	525	904	147	217	1409	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3505	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3505	1568	3400	3505	1568	3400	3505	1568	3400	3505	1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	143	561	223	527	572	42	583	1004	163	236	1532	121
RTOR Reduction (vph)	0	0	4	0	0	28	0	0	13	0	0	12
Lane Group Flow (vph)	143	561	219	527	572	14	583	1004	150	236	1532	109
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.0	18.0	38.0	16.0	29.0	42.5	20.0	60.5	78.5	13.5	54.0	61.0
Effective Green, g (s)	7.0	18.0	38.0	18.0	29.0	42.5	20.0	60.5	78.5	13.5	54.0	61.0
Actuated g/C Ratio	0.05	0.14	0.29	0.14	0.22	0.33	0.15	0.47	0.60	0.10	0.42	0.47
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	183	485	519	471	782	573	523	1631	1007	353	1456	796
v/s Ratio Prot	0.04	c0.16	0.06	c0.16	0.16	0.00	c0.17	0.29	0.02	0.07	c0.44	0.01
v/s Ratio Perm			0.07			0.01			0.07			0.06
v/c Ratio	0.78	1.16	0.42	1.12	0.73	0.02	1.11	0.62	0.15	0.67	1.05	0.14
Uniform Delay, d1	60.7	56.0	37.1	56.0	46.9	29.7	55.0	26.0	11.2	56.1	38.0	19.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.2	91.6	0.6	78.1	3.5	0.0	74.7	1.7	0.1	4.7	38.6	0.1
Delay (s)	79.9	147.6	37.7	134.1	50.4	29.7	129.7	27.8	11.3	60.8	76.6	19.6
Level of Service	E	F	D	F	D	C	F	C	B	E	E	B
Approach Delay (s)		110.7			88.3			60.2			71.0	
Approach LOS		F			F			E			E	

Intersection Summary					
HCM Average Control Delay	77.6	HCM Level of Service		E	
HCM Volume to Capacity ratio	1.09				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		20.0	
Intersection Capacity Utilization	98.1%	ICU Level of Service		F	
Analysis Period (min)	15				
c Critical Lane Group					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	923	182	0	999	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1026	202	0	1110	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			1228		1581	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			908		1325	64
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			626		124	833

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	513	513	202	555	555	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	202	0	0	22
cSH	1700	1700	1700	1700	1700	833
Volume to Capacity	0.30	0.30	0.12	0.33	0.33	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.4
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.4
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	923	70	0	999	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1026	78	0	1110	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.84		0.84	0.84
vC, conflicting volume			1103		1581	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			741		1309	37
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			718		125	859

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	513	513	78	555	555	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	78	0	0	22
cSH	1700	1700	1700	1700	1700	859
Volume to Capacity	0.30	0.30	0.05	0.33	0.33	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.3
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	923	70	0	897	0	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1026	78	0	997	0	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.84		0.84	0.84
vC, conflicting volume			1103		1524	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			733		1236	27
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			720		140	869

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	513	513	78	498	498	22
Volume Left	0	0	0	0	0	0
Volume Right	0	0	78	0	0	22
cSH	1700	1700	1700	1700	1700	869
Volume to Capacity	0.30	0.30	0.05	0.29	0.29	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.3
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	649	226	0	1165	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	721	251	0	1294	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			972		1368	361
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			708		1156	17
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			778		167	933

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	361	361	251	647	647	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	251	0	0	31
cSH	1700	1700	1700	1700	1700	933
Volume to Capacity	0.21	0.21	0.15	0.38	0.38	0.03
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.0
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	649	87	0	1165	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	721	97	0	1294	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			818		1368	361
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			513		1140	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			914		169	948

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	361	361	97	647	647	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	97	0	0	31
cSH	1700	1700	1700	1700	1700	948
Volume to Capacity	0.21	0.21	0.06	0.38	0.38	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	8.9
Lane LOS						A
Approach Delay (s)	0.0			0.0		8.9
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑		↱
Volume (veh/h)	649	87	0	1028	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	721	97	0	1142	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	259					
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			818		1292	361
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			513		1053	0
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			914		193	948

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	361	361	97	571	571	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	97	0	0	31
cSH	1700	1700	1700	1700	1700	948
Volume to Capacity	0.21	0.21	0.06	0.34	0.34	0.03
Queue Length 95th (ft)	0	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	8.9
Lane LOS						A
Approach Delay (s)	0.0			0.0		8.9
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	31.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	907	35	84	770	229	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1008	39	93	856	269	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			1047		1622	504
vC1, stage 1 conf vol					1008	
vC2, stage 2 conf vol					614	
vCu, unblocked vol			757		1418	134
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		0	94
cM capacity (veh/h)			734		231	773

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	504	504	39	93	428	428	314
Volume Left	0	0	0	93	0	0	269
Volume Right	0	0	39	0	0	0	45
cSH	1700	1700	1700	734	1700	1700	256
Volume to Capacity	0.30	0.30	0.02	0.13	0.25	0.25	1.22
Queue Length 95th (ft)	0	0	0	11	0	0	376
Control Delay (s)	0.0	0.0	0.0	10.6	0.0	0.0	171.1
Lane LOS				B			F
Approach Delay (s)	0.0			1.0			171.1
Approach LOS							F

Intersection Summary			
Average Delay	23.7		
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	907	35	84	770	229	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1008	39	93	856	269	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			1047		1622	504
vC1, stage 1 conf vol					1008	
vC2, stage 2 conf vol					614	
vCu, unblocked vol			719		1391	85
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		0	95
cM capacity (veh/h)			746		235	817

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	504	504	39	93	428	428	314
Volume Left	0	0	0	93	0	0	269
Volume Right	0	0	39	0	0	0	45
cSH	1700	1700	1700	746	1700	1700	262
Volume to Capacity	0.30	0.30	0.02	0.13	0.25	0.25	1.20
Queue Length 95th (ft)	0	0	0	11	0	0	365
Control Delay (s)	0.0	0.0	0.0	10.5	0.0	0.0	160.9
Lane LOS				B			F
Approach Delay (s)	0.0			1.0			160.9
Approach LOS							F

Intersection Summary			
Average Delay	22.3		
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	907	35	84	770	127	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1008	39	93	856	149	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			1047		1622	504
vC1, stage 1 conf vol					1008	
vC2, stage 2 conf vol					614	
vCu, unblocked vol			712		1386	76
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		37	95
cM capacity (veh/h)			749		236	825

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	504	504	39	93	428	428	194
Volume Left	0	0	0	93	0	0	149
Volume Right	0	0	39	0	0	0	45
cSH	1700	1700	1700	749	1700	1700	283
Volume to Capacity	0.30	0.30	0.02	0.12	0.25	0.25	0.69
Queue Length 95th (ft)	0	0	0	11	0	0	116
Control Delay (s)	0.0	0.0	0.0	10.5	0.0	0.0	41.7
Lane LOS				B			E
Approach Delay (s)	0.0			1.0			41.7
Approach LOS							E

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	631	43	104	856	309	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	701	48	116	951	364	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			749		1408	351
vC1, stage 1 conf vol					701	
vC2, stage 2 conf vol					707	
vCu, unblocked vol			507		1236	65
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		0	93
cM capacity (veh/h)			946		267	886

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	351	351	48	116	476	476	424
Volume Left	0	0	0	116	0	0	364
Volume Right	0	0	48	0	0	0	60
cSH	1700	1700	1700	946	1700	1700	296
Volume to Capacity	0.21	0.21	0.03	0.12	0.28	0.28	1.43
Queue Length 95th (ft)	0	0	0	10	0	0	573
Control Delay (s)	0.0	0.0	0.0	9.3	0.0	0.0	245.8
Lane LOS				A			F
Approach Delay (s)	0.0			1.0			245.8
Approach LOS							F

Intersection Summary			
Average Delay	47.0		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	631	43	104	856	309	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	701	48	116	951	364	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			749		1408	351
vC1, stage 1 conf vol					701	
vC2, stage 2 conf vol					707	
vCu, unblocked vol			466		1207	17
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		0	94
cM capacity (veh/h)			964		271	936

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	351	351	48	116	476	476	424
Volume Left	0	0	0	116	0	0	364
Volume Right	0	0	48	0	0	0	60
cSH	1700	1700	1700	964	1700	1700	301
Volume to Capacity	0.21	0.21	0.03	0.12	0.28	0.28	1.41
Queue Length 95th (ft)	0	0	0	10	0	0	559
Control Delay (s)	0.0	0.0	0.0	9.2	0.0	0.0	234.1
Lane LOS				A			F
Approach Delay (s)	0.0			1.0			234.1
Approach LOS							F

Intersection Summary			
Average Delay	44.8		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	631	43	104	856	172	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	701	48	116	951	202	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	510					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			749		1408	351
vC1, stage 1 conf vol					701	
vC2, stage 2 conf vol					707	
vCu, unblocked vol			466		1207	17
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)			2.2		3.5	3.3
p0 queue free %			88		25	94
cM capacity (veh/h)			964		271	936

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	351	351	48	116	476	476	262
Volume Left	0	0	0	116	0	0	202
Volume Right	0	0	48	0	0	0	60
cSH	1700	1700	1700	964	1700	1700	324
Volume to Capacity	0.21	0.21	0.03	0.12	0.28	0.28	0.81
Queue Length 95th (ft)	0	0	0	10	0	0	170
Control Delay (s)	0.0	0.0	0.0	9.2	0.0	0.0	50.2
Lane LOS				A			F
Approach Delay (s)	0.0			1.0			50.2
Approach LOS							F

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	910	35	0	854	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1011	39	0	949	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.93		0.93	0.93
vC, conflicting volume			1050		1486	506
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			894		1364	305
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		82	100
cM capacity (veh/h)			693		127	637

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	506	506	39	474	474	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	39	0	0	0
cSH	1700	1700	1700	1700	1700	127
Volume to Capacity	0.30	0.30	0.02	0.28	0.28	0.18
Queue Length 95th (ft)	0	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	39.2
Lane LOS						E
Approach Delay (s)	0.0			0.0		39.2
Approach LOS						E

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱		↑↑	↰	
Volume (veh/h)	910	35	0	854	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1011	39	0	949	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			1050		1486	506
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			823		1309	215
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	100
cM capacity (veh/h)			713		134	705

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	506	506	39	474	474	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	39	0	0	0
cSH	1700	1700	1700	1700	1700	134
Volume to Capacity	0.30	0.30	0.02	0.28	0.28	0.17
Queue Length 95th (ft)	0	0	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	37.2
Lane LOS						E
Approach Delay (s)	0.0			0.0		37.2
Approach LOS						E

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	910	35	0	854	19	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.85	0.85
Hourly flow rate (vph)	1011	39	0	949	22	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			1050		1486	506
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			817		1305	208
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	100
cM capacity (veh/h)			715		134	710

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	506	506	39	474	474	22
Volume Left	0	0	0	0	0	22
Volume Right	0	0	39	0	0	0
cSH	1700	1700	1700	1700	1700	134
Volume to Capacity	0.30	0.30	0.02	0.28	0.28	0.17
Queue Length 95th (ft)	0	0	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	37.1
Lane LOS						E
Approach Delay (s)	0.0			0.0		37.1
Approach LOS						E

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	639	43	0	960	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	770	52	0	1157	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			822		1348	385
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			698		1255	237
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			840		154	721

Direction, Lane,#	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	385	385	52	578	578	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	52	0	0	31
cSH	1700	1700	1700	1700	1700	721
Volume to Capacity	0.23	0.23	0.03	0.34	0.34	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS						B
Approach Delay (s)	0.0			0.0		10.2
Approach LOS						B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	639	43	0	960	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	770	52	0	1157	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			822		1348	385
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			620		1195	143
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			869		163	802

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	385	385	52	578	578	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	52	0	0	31
cSH	1700	1700	1700	1700	1700	802
Volume to Capacity	0.23	0.23	0.03	0.34	0.34	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.7
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	639	43	0	960	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	770	52	0	1157	0	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	791					
pX, platoon unblocked			0.92		0.92	0.92
vC, conflicting volume			822		1348	385
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			620		1195	143
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			869		163	802

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	385	385	52	578	578	31
Volume Left	0	0	0	0	0	0
Volume Right	0	0	52	0	0	31
cSH	1700	1700	1700	1700	1700	802
Volume to Capacity	0.23	0.23	0.03	0.34	0.34	0.04
Queue Length 95th (ft)	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.7
Approach LOS						A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	102	1546	112	0	1140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	120	1627	118	0	1200
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						467
pX, platoon unblocked	0.79					
vC, conflicting volume	2286	873			1745	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2093	873			1745	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	59			100	
cM capacity (veh/h)	35	292			352	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	120	1085	660	600	600
Volume Left	0	0	0	0	0
Volume Right	120	0	118	0	0
cSH	292	1700	1700	1700	1700
Volume to Capacity	0.41	0.64	0.39	0.35	0.35
Queue Length 95th (ft)	48	0	0	0	0
Control Delay (s)	25.7	0.0	0.0	0.0	0.0
Lane LOS	D				
Approach Delay (s)	25.7	0.0		0.0	
Approach LOS	D				

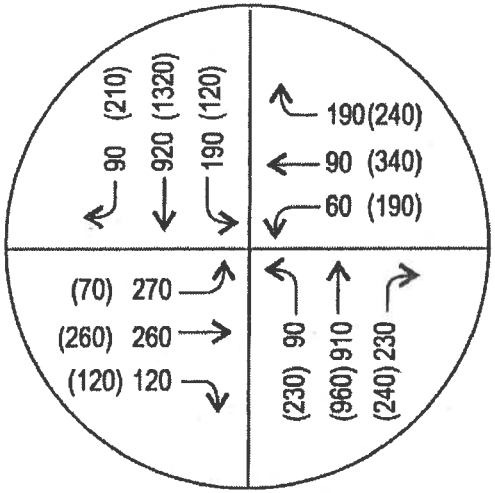
Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	59.3%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	137	1284	139	0	1713
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	161	1396	151	0	1862
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						467
pX, platoon unblocked	0.63					
vC, conflicting volume	2402	773			1547	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2051	773			1547	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	53			100	
cM capacity (veh/h)	30	339			420	

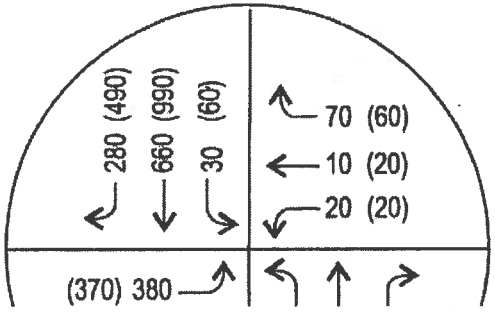
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	161	930	616	931	931
Volume Left	0	0	0	0	0
Volume Right	161	0	151	0	0
cSH	339	1700	1700	1700	1700
Volume to Capacity	0.47	0.55	0.36	0.55	0.55
Queue Length 95th (ft)	61	0	0	0	0
Control Delay (s)	24.8	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	24.8	0.0		0.0	
Approach LOS	C				

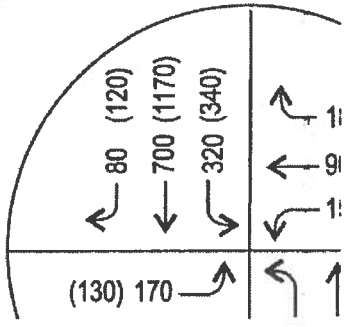
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

Exhibit 6 Year 2030 AM and PM Peak Hour Traffic Forecasts



Unser @ Sage Rd





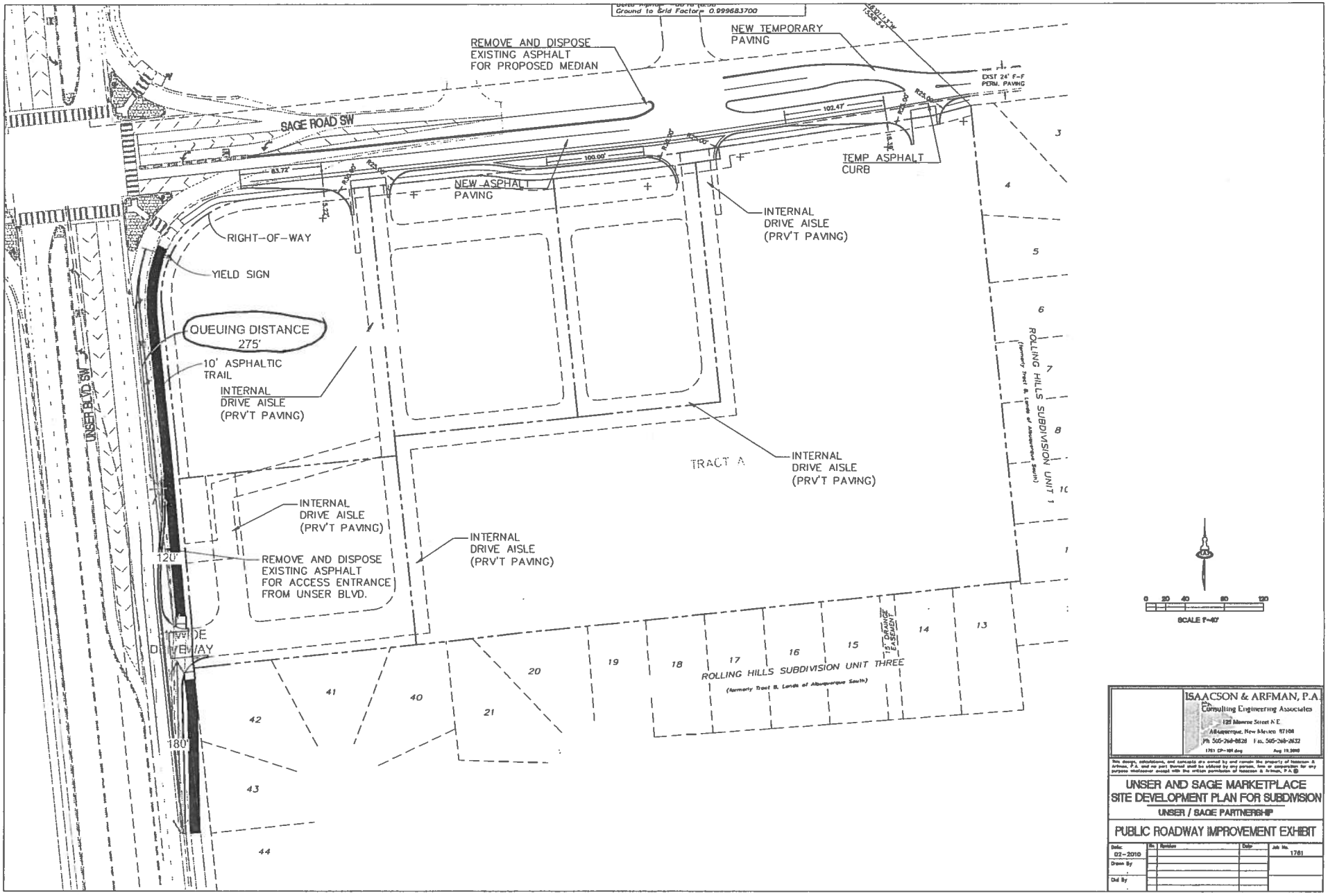
Cummulative Delay Worksheet (Sage / Unser - BUILD Condition)

Sage / Unser — **2030 AM Peak Hour**

	Case "N"			Case "Y1"			Case "Y2"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound												
Left	55	52.7	2,899	55	52.7	2,899	55	52.7	2,899	55	52.7	2,899
Thru	576	56.5	32,544	576	56.5	32,544	576	68.4	39,398	576	60.8	35,021
Right	178	28.9	5,144	178	28.9	5,144	178	28.2	5,020	178	30.5	5,429
Westbound												
Left	415	56.1	23,282	415	57.3	23,780	415	70.9	29,424	415	57.3	23,780
Thru	480	30.4	14,592	480	30.6	14,688	430	32.4	13,932	430	30.4	13,072
Right	103	20.3	2,091	103	20.4	2,101	52	21.4	1,113	52	20.6	1,071
Northbound												
Left	209	49.6	10,366	209	49.6	10,366	259	63.9	16,550	259	63.9	16,550
Thru	824	33.1	27,274	824	32.8	27,027	875	30.7	26,863	875	32.3	28,263
Right	544	19.8	10,771	432	17.1	7,387	432	16.2	6,998	432	16.4	7,085
Southbound												
Left	183	33.8	6,185	183	33.4	6,112	183	31.6	5,783	183	58.4	10,687
Thru	909	40.1	36,451	909	39.7	36,087	909	38.6	35,087	909	36.1	32,815
Right	33	20.9	690	33	20.8	686	33	20.5	677	33	19.6	647
Vehicle Seconds of delay			172,289			168,822			183,743			177,317

Sage / Unser — **2030 PM Peak Hour**

	Case "N"			Case "Y1"			Case "Y2"			Case "Y2"		
	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay	Volume	Delay (Sec)	Vol x Delay
Eastbound												
Left	129	108.2	13,958	129	108.2	13,958	129	79.9	10,307	129	79.9	10,307
Thru	505	175.9	88,830	505	175.9	88,830	505	175.9	88,830	505	147.6	74,538
Right	201	35.3	7,095	201	35.3	7,095	201	33	6,633	201	37.7	7,578
Westbound												
Left	474	160.2	75,935	474	160.2	75,935	474	192.4	91,198	474	134.1	63,563
Thru	583	58.6	34,164	583	58.6	34,164	515	57	29,355	515	50.4	25,956
Right	108	31.8	3,434	108	31.8	3,434	38	31.8	1,208	38	29.7	1,129
Northbound												
Left	457	212.1	96,930	457	212.1	96,930	525	230.3	120,908	525	129.7	68,093
Thru	835	24.9	20,792	835	24.9	20,792	904	25.5	23,052	904	27.8	25,131
Right	286	11.6	3,318	147	10.4	1,529	147	10.5	1,544	147	11.3	1,661
Southbound												
Left	217	23.1	5,013	217	23.1	5,013	217	25.7	5,577	217	60.8	13,194
Thru	1409	92.5	130,333	1409	92.5	130,333	1409	111	156,399	1409	76.6	107,929
Right	111	21.3	2,364	111	21.3	2,364	111	21.9	2,431	111	19.6	2,176
Vehicle Seconds of delay			482,164			480,375			537,440			401,254



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UNSER AND SAGE MARKETPLACE
SITE DEVELOPMENT PLAN FOR SUBDIVISION
UNSER / SAGE PARTNERSHIP

PUBLIC ROADWAY IMPROVEMENT EXHIBIT

Date:	No.	Revision	Date	Job No.
02-2010				1761
Drawn By				
Chd By				

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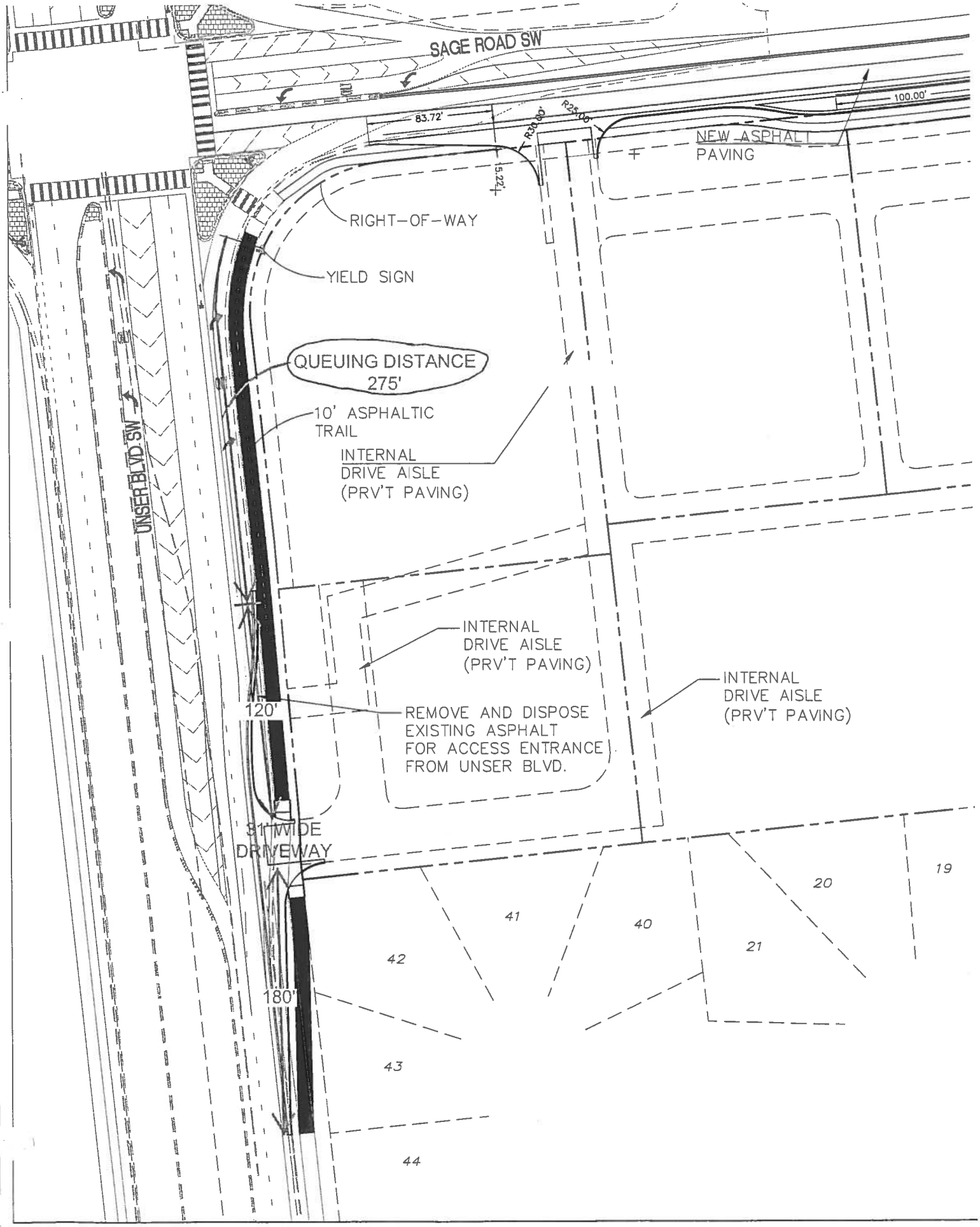
SAGE ROAD SW
83.72'
R30.00'
R25.06'
100.00'
15.22'
NEW ASPHALT PAVING
RIGHT-OF-WAY
YIELD SIGN
QUEUING DISTANCE 275'
10' ASPHALTIC TRAIL
INTERNAL DRIVE AISLE (PRV'T PAVING)
UNSER BLVD SW
INTERNAL DRIVE AISLE (PRV'T PAVING)
120'
REMOVE AND DISPOSE EXISTING ASPHALT FOR ACCESS ENTRANCE FROM UNSER BLVD.
INTERNAL DRIVE AISLE (PRV'T PAVING)
31' WIDE DRIVEWAY
180'
19
20
21
40
41
42
43
44

A-138a

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	640	198	461	478	58	282	951	470	199	988	36
v/c Ratio	0.39	0.92	0.36	0.85	0.44	0.08	0.83	0.71	0.51	0.72	0.78	0.05
Control Delay	58.7	63.6	25.6	60.9	31.5	6.1	69.3	32.9	15.2	64.8	36.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	63.6	25.6	60.9	31.5	6.1	69.3	32.9	15.2	64.8	36.7	5.8
Queue Length 50th (ft)	22	234	90	164	139	2	102	300	177	71	326	0
Queue Length 95th (ft)	44	#340	153	#242	188	26	#171	377	264	#121	410	19
Internal Link Dist (ft)		972			179			387			1071	
Turn Bay Length (ft)	250		250	250		250	550		375	550		550
Base Capacity (vph)	155	701	555	556	1115	717	341	1332	932	278	1266	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.91	0.36	0.83	0.43	0.08	0.83	0.71	0.50	0.72	0.78	0.05

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	143	561	223	527	572	42	583	1004	163	236	1532	121
v/c Ratio	0.78	1.16	0.43	1.12	0.73	0.07	1.11	0.62	0.16	0.67	1.05	0.15
Control Delay	88.3	140.4	36.0	128.5	53.2	7.8	124.4	28.3	7.9	65.7	75.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.3	140.4	36.0	128.5	53.2	7.8	124.4	28.3	7.9	65.7	75.8	14.3
Queue Length 50th (ft)	62	~293	142	~263	237	0	~290	331	40	99	~741	42
Queue Length 95th (ft)	#117	#411	219	#376	304	25	#407	406	72	143	#881	78
Internal Link Dist (ft)		972			179			387			1071	
Turn Bay Length (ft)	250		250	250		250	550		375	550		550
Base Capacity (vph)	183	485	523	471	782	617	523	1632	1020	392	1456	807
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.16	0.43	1.12	0.73	0.07	1.11	0.62	0.16	0.60	1.05	0.15

Intersection Summary

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

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