Sunport ACE Project

(Gibson Blvd. East of Girard Blvd.)

Traffic Impact Study

July 28, 2014

F I N A L

Presented to:

City of Albuquerque
Transportation Development Section

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TRAFFIC IMPACT STUDY

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TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of a site development plan proposing a new commercial / office / warehouse / manufacturing center as shown in the Appendix (Page A-2) of this report. The purpose of this study is to identify the impact of the Development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system resulting from the implementation of the site development plan. This study is being prepared to meet the requirements of the City of Albuquerque Transportation Development Section. Also see companion report, Sunport ACE Project Access Justification Study dated April 2014.

STUDY PROCEDURES

A scoping meeting was held on January 13, 2014 with City of Albuquerque staff (Tony Loyd and Debbie Bauman) prior to beginning the study to discuss scope and methodology to be utilized within the report. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition (2020).

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed development consisting of the following described land uses and approximate square footages:
   a) A 10,000 S.F. High Turnover Sit-down Restaurant
   b) A Gas Station w/ convenience market with 20 fueling positions
   c) A 68,000 S.F. Shopping Center
   d) A 20,000 S.F. Variety Store
   e) 218,000 S.F. of Manufacturing
   f) 2 General Office Buildings (39,300 S.F. and 33,000 S.F.)
   g) 3 Warehouse Buildings (2 @ 330,000 S.F. and 91,700 S.F.)
   See Appendix Pages A-6 thru A-16.
2) Calculate trip distribution for the newly generated trips based on the following criteria: *Commercial Development* - based on distribution of 2020 population data within a two mile radius. *Office / Warehouse / Manufacturing Development* – based on citywide distribution of 2020 population data. See Appendix Pages A-17 thru A-20 (commercial) and A-23 thru A-28 (office).
3) Add in trips generated by previously approved development from the UNM Commercial Development at Gibson / University. See Appendix Pages A-45 and A-49.
4) Determine Trip Assignments (for 2020) for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site. See Appendix Pages A-21 thru A-22 (commercial) and A-29 thru A-32 (office).

5) Conduct new AM and PM Peak Hour turning movement counts for the intersections of Gibson Blvd. / Louisiana Blvd, Gibson Blvd. / Carlisle Blvd, and Gibson Blvd. / Girard Blvd. A 2011 traffic count will be used for Gibson Blvd / I-25 Ramps. See Appendix Pages A-103 thru A-108.
6) Determine historic traffic growth rate for the area based on a 2015 and 2035 AM and PM Peak Hour link volume data obtained from the Mid-Region Council of Governments' regional transportation model (2035 data set). See Appendix Pages A-33 thru A-35.
7) Determine 2020 NO BUILD turning movement Volumes for the intersections of Gibson Blvd. / Louisiana Blvd, Gibson Blvd. / Carlisle Blvd, Gibson Blvd. / Girard Blvd. and Gibson Blvd / I-25 W. Ramp and Gibson Blvd. / I-25 E. Ramp. See Appendix Pages A-36 thru A-58.
8) Add in data from Trip Assignments Maps and Tables to the 2020 NO BUILD Volumes to obtain 2020 BUILD Volumes for this project. See Appendix Pages A-36 thru A-58.
9) Provide signalized and unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Gibson Blvd. / Louisiana Blvd	Traffic Signal	2020	2020
2) Gibson Blvd. / Carlisle Blvd.	Traffic Signal	2020	2020
3) Gibson Blvd. / Girard	Traffic Signal	2020	2020
4) Gibson Blvd. / I-25 W. Ramp	Stop Sign	2020	2020
5) Gibson Blvd. / Driveway "A"	Stop Sign	N/A	2020
6) Gibson Blvd. / I-25 E. Ramp	Stop Sign	2020	2020
7) Miles Rd. / Girard Blvd.	Stop Sign		
8) Driveway "C" / Girard Blvd.	Stop Sign	N/A	2020
9) Driveway "D" / Girard Blvd.	Stop Sign	N/A	2020
10) Driveway "E" / Girard Blvd.	Stop Sign	N/A	2020

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There is one previously approved proposed development that was included in the background traffic volumes for this study – the UNM Commercial Development located at Gibson Blvd. / University Blvd.

GENERAL AREA CHARACTERISTICS

The proposed site development plan is for a property bounded on the north by Gibson Blvd., bounded on the east by Hickman Ave. and bounded on the west by Girard Blvd. as depicted on the Vicinity Map on Page A-1 of the Appendix of this report. The total area of the requested site development plan is approximately 70 acres. The adjacent properties of this site include a mix of Albuquerque Sunport, Kirtland Air Force Base (KAFB), commercial, and residential. More detailed zoning information may be obtained upon inspection of the Vicinity Map on Page A-1 in the Appendix.

AREA STREET NETWORK

Gibson Blvd. is classified as a Limited Access Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area and is generally a six lane paved urban section roadway with curb and gutter on both sides of the street and a raised median east of I-25. The posted speed limit on Gibson Blvd. in the vicinity of this project is 45 MPH.

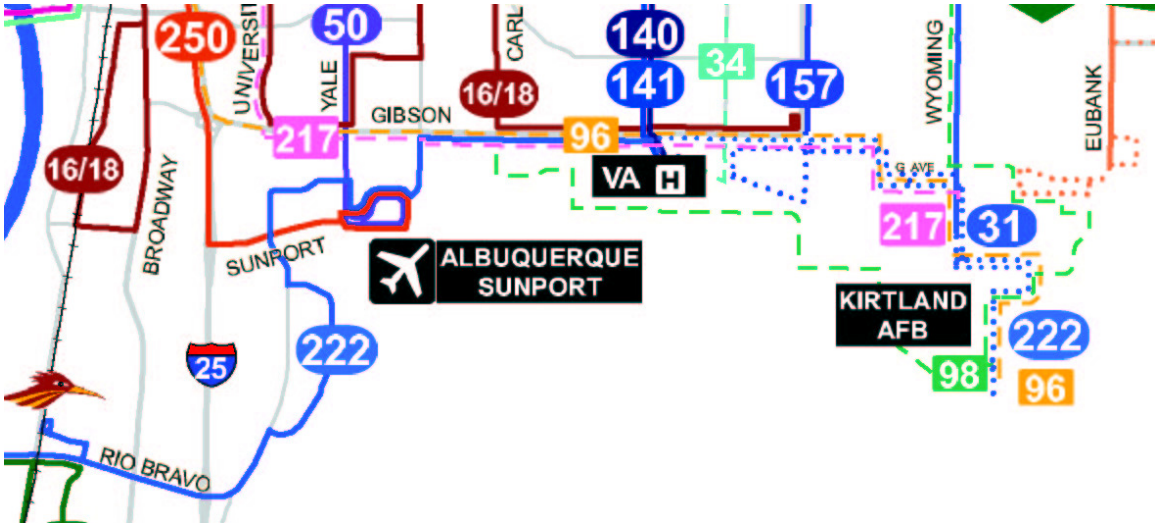
Louisiana Blvd. is classified as an Urban Principal Arterial Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area and is generally a five lane paved urban section roadway with curb and gutter on both sides of the street and a two-way, left-turn lane in the center north of Gibson Blvd. Louisiana Blvd. is generally a two lane roadway section south of Gibson Blvd. with curb and gutter and sidewalk on the west side of the street. The posted speed limit on Louisiana Blvd in the vicinity of this project is 35 MPH.

Carlisle Blvd. is classified as an Urban Minor Arterial Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area and is generally a two lane urban roadway section with sidewalk and curb and gutter on both sides of the street north of Gibson Blvd. Carlisle Blvd. is generally a four lane urban roadway section with sidewalk on the east side of the street and curb and gutter on both sides of the street south of Gibson Blvd. The posted speed limit is 30 MPH.

Girard Blvd. is classified as Collector Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area and is generally a four lane urban roadway section with sidewalk and curb and gutter on both sides of the street north of Gibson Blvd. Girard Blvd. is generally a two lane urban roadway section with a paved trail on the west side of the street and curb and gutter on both sides of the street to Miles Rd. south of Gibson Blvd. The posted speed limit is 30 MPH.

Interstate 25 is a north-south oriented freeway / expressway connecting El Paso, Texas with Denver Colorado that passes through the center of Albuquerque. There are entrance / exit ramps on I-25 at Avenida Caesar Chavez and at Gibson Blvd. near the project area.

There are several ABQ Ride routes that service this area. Route 16/18 accesses the downtown area and Broadway Blvd. before it heads east to University Blvd. and south to Gibson Blvd. It repeats this loop every 45 minutes between 6 AM and 7 PM weekdays and has a shorter weekend schedule. Route 96 (Crosstown Commuter) has varied intervals and limited stops between Unser Blvd. / Cabezon and KAFB. Route 217 (KAFB Limited) has three loops per day with limited stops, starting at the Alvarado Transportation Center downtown then south on University Blvd. to Gibson Blvd. and then to KAFB. Route 222 has two different stop schedules with limited stops and runs from Coors Blvd. / Rio Bravo Blvd. thru the ABQ Sunport, north on Girard Blvd. and east on Gibson Blvd. to either the VA Medical Center or KAFB. (See map below and schedules in the Appendix on Pages A-109 thru A-113.)



In addition, there are bicycle lanes / trails in the vicinity of this project that are shown on the following map.

EXISTING TRAFFIC VOLUMES

2012 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-5 of the Appendix.

Existing AM and PM peak hour turning movement counts for the year 2013 / 2014 obtained by the consulting engineer for the following intersections:

Gibson Blvd. / Louisiana Blvd.
Gibson Blvd. / Carlisle Blvd.
Gibson Blvd. / Girard Blvd.
Gibson Blvd. / I-25 Ramps

The counts are included on Pages A-103 thru A-108 in the Appendix of this report.

EXISTING (2014) LEVELS OF SERVICE

Current levels-of-service for the intersections analyzed in this study are not reported. Most of the offsite intersections analyzed in this study resulted in acceptable levels-of-service for the 2020 AM and PM Peak Hour NO BUILD and BUILD Conditions. Therefore, those intersections, when analyzed for existing conditions, will result in acceptable levels-of-service.

PROPOSED DEVELOPMENT

The subject area of land targeted for the site development plan totals approximately 70 acres. The proposed conceptual site development plan consists of the following approximate land uses:

a) *A 10,000 S.F. High Turnover Sit-down Restaurant*
b) *A Gas Station w/ convenience market with 20 fueling positions*
c) *A 68,000 S.F. Shopping Center*
d) *A 20,000 S.F. Variety Store*
e) *218,000 S.F. of Manufacturing*
f) *2 General Office Buildings (39,300 S.F. and 33,000 S.F.)*
g) *3 Warehouse Buildings (2 @ 330,000 S.F. and 91,700 S.F.)*

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 conceptual 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 one access point on Gibson Blvd. and four access points on Girard Blvd.

Since Gibson Blvd. is classified as a Limited Access Roadway, then the proposed Access on Gibson Blvd. will need to be approved by the Transportation Coordinating Committee (T.C.C.) and reviewed by the Roadway Access Committee (R.A.C.) A companion report, Sunport ACE Project Access Justification Study dated April 2014 for

this project analyzes the benefits and / or impacts of implementing the proposed left-turn-in, right-turn-in, right-turn-out driveway on Gibson Blvd. between Girard Blvd. and Carlisle Blvd.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (9th Edition, 2009). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plan on Page A-2 in the Appendix of this report. No adjustments were made for Pass-by Trips in this study.

The resulting number of trips generated for the proposed development is summarized in the following table:

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

COMMENT	USE (ITE CODE) DESCRIPTION		24 HR VOL GROSS	A. M. PEAK HR. ENTER	A. M. PEAK HR. EXIT	P. M. PEAK HR. ENTER	P. M. PEAK HR. EXIT
	Summary Sheet	Units					
Tract "A"	Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	135	135
Tract "A"	Shopping Center (820)	68.00	5,285	76	47	222	241
Tract "A"	Variety Store (814)	20.00	1,281	38	38	68	68
Tract "A"	High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	59	49	59	39
Tract "B"	Manufacturing (140)	218.00	867	118	33	55	99
Tract "C"	General Office Building (710)	39.30	646	80	11	21	102
Tract "C"	Warehousing (150)	91.70	458	62	17	14	42
Tract "D"	Warehousing (150)	330.00	1,376	126	33	32	96
Tract "E"	Warehousing (150)	330.00	1,376	126	33	32	96
Tract "E"	General Office Building (710)	33.00	565	69	9	20	96
	Subtotal		**16,382**	**856**	**372**	**658**	**1,014**

See Appendix Pages A-7 thru A-16 for individual trip generation worksheets.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed on the following basis:

Commercial

Primary and diverted linked trips for the land use development were distributed proportionally to the 2020 projected population of Data Analysis Subzones within a two-mile radius of the proposed development. Population data for the years 2015 and 2035 were taken from the 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid Regional Council of Governments (MRCOG). Population data from the years 2015 and 2035 was interpolated linearly to obtain 2020 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix on Pages A-17 thru A-20.

Office

Primary and diverted linked trips for the land use development were distributed proportionally to the 2020 projected population of the Subareas citywide. Population data for the years 2015 and 2035 were taken from the 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid Regional Council of Governments (MRCOG). Population data from the years 2015 and 2035 was interpolated linearly to obtain 2020 population data to utilize for this analysis. Population Subareas were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas is shown in the Appendix on Pages A-23 thru A-28.

TRIP ASSIGNMENT

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and then based on logical routing to and from the site. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown on the Trip Assignments Maps on Pages A-21 thru A-22 for commercial trip assignments and on Pages A-29 thru A-32 for office trip assignments in the Appendix.

BACKGROUND TRAFFIC GROWTH

Background annual traffic growth rates were determined for the study area that was targeted for analysis based on data from the 2035 Regional Transportation Model data set from the Mid-Region Council of Governments. This study will determine the annual growth rate for each of the three or four approaches to each intersection being analyzed.

Forecast link volumes were obtained from the model for the AM and PM Peak Hours for the years 2015 and 2035. Those link volumes were utilized to establish a future growth rate for each leg of the intersection being analyzed in this study. The resulting calculated growth rates from the MRCOG model data were used to grow the existing volumes to the projected 2035 volumes shown at the bottom of the individual intersection spreadsheet in the Turning Movements pages. In some cases, the growth rate was extremely high and a maximum of 5% was substituted. Additionally, in cases of a negative growth rate, a minimum of 1% was used. The growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (See Appendix Pages A-39 thru A-58).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2020 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts (conducted by the consulting engineer) to establish the 2020 background NO BUILD traffic volumes. Then the previously approved development volumes from the UNM Commercial Development were added to the intersections of Gibson Blvd. / I-25 E. Ramp and Gibson Blvd. / I-25 W. Ramp. To those 2020 NO BUILD Volumes volumes, the generated trips based on implementation of the proposed Sunport ACE Project (100%

development) were added to obtain the 2020 BUILD volumes for the intersection analyses. See Appendix Pages A-36 thru A-58 for further information regarding 2020 turning movement counts.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using Synchro 8 software for signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for implementation year conditions (NO BUILD and BUILD). There was no Horizon Year Analysis required for this study.

Capacity analyses were performed for the following traffic conditions.

Implementation Year (2020) - NO BUILD
Implementation Year (2020) - BUILD

The results of the implementation year (2020), capacity analyses are summarized in the following sections.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2020)

Intersection #1 – Gibson Blvd. / Louisiana Blvd. - Pages A-59 thru A-62

The results of the implementation year analysis of the signalized intersection of Gibson Blvd. / Louisiana Blvd. are summarized in the following table:

Intersection: 1 - GIBSON BLVD. / LOUISIANA BLVD.

		2020 AM Peak Hour BUILD (EXIST. GEOM.)					2020 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	B - 18.6	1	B - 19.7	L	1	D - 40.8	1	D - 48.5	
	T	2	B - 17.0	2	B - 18.0	T	2	A - 7.4	2	A - 7.3	
	R	1	B - 10.1	1	B - 10.7	R	1	A - 5.0	1	A - 4.8	
WB	L	1	C - 25.8	1	C - 27.0	L	1	C - 32.1	1	C - 32.2	
	T	3	C - 26.6	3	C - 28.1	T	3	D - 49.8	3	D - 46.7	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
NB	L	1	B - 13.7	1	B - 12.8	L	1	C - 30.3	1	C - 31.9	
	T	1	B - 17.1	1	B - 16.0	T	1	D - 36.4	1	D - 38.2	
	R	1	B - 17.4	1	B - 16.2	R	1	D - 37.8	1	D - 39.7	
SB	L	2	B - 14.1	2	B - 14.3	L	2	C - 30.2	2	C - 31.7	
	T	1	B - 16.5	1	B - 16.5	T	1	C - 34.5	1	D - 36.1	
	R	1	B - 18.3	1	B - 18.9	R	1	B - 14.8	1	B - 15.5	
Intersection:		***B - 18.0***		***B - 19.0***			***D - 35.5***		***D - 36.4***		

Note: ">" designates a shared right or left turn lane.

Existing southbound geometry actually consists of one left turn lane, one shared left turn/thru lane, and one right turn

The implementation year analysis of the signalized intersection of Gibson Blvd. / Louisiana Blvd. indicates that that the levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions. The existing southbound geometry at the intersection actually consists of one left turn lane, one shared left turn/thru lane, and one exclusive right turn lane. However, Synchro 8 Software will not analyze a signalized intersection with a shared thru/turn lane, so this analysis was performed using the southbound geometry shown in the table (dual left turn lanes, one thru lane and one exclusive right turn lane) but is closely representative of the actual existing geometry described previously.

The following table summarizes the results of the queuing analysis for this intersection:

Queueing Analysis Summary Sheet

Project: Sunport ACE Project

Intersection: **Gibson Blvd / Louisiana Blvd**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*170*	*125*	*2*	*463*	*Cont*	*1*	*5*	*150*
AM NO BUILD Queue	1	280	325	2	763	450	1	8	25
AM BUILD Queue	**1**	**287**	**325**	**2**	**775**	**450**	**1**	**8**	**25**
Existing Lane Length	*1*	*389*	*125*	*2*	*162*	*Cont*	*1*	*2*	*150*
PM NO BUILD Queue	1	656	650	2	273	**200**	1	3	0
PM BUILD Queue	**1**	**684**	**650**	**2**	**320**	**225**	**1**	**3**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*10*	*50*	*3*	*174*	*Cont*	*1*	*34*	*300*
AM NO BUILD Queue	1	12	25	3	205	125	1	40	75
AM BUILD Queue	**1**	**12**	**25**	**3**	**257**	**150**	**1**	**40**	**75**
Existing Lane Length	*1*	*18*	*50*	*3*	*658*	*Cont*	*1*	*214*	*300*
PM NO BUILD Queue	1	22	50	3	816	350	1	265	300
PM BUILD Queue	**1**	**22**	**50**	**3**	**832**	**350**	**1**	**265**	**300**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*2*	*50*	*1*	*4*	*Cont*	*1*	*11*	*75*
AM NO BUILD Queue	1	3	0	1	5	25	1	15	50
AM BUILD Queue	**1**	**3**	**0**	**1**	**5**	**25**	**1**	**15**	**50**
Existing Lane Length	*1*	*33*	*50*	*1*	*57*	*Cont*	*1*	*62*	*75*
PM NO BUILD Queue	1	35	75	1	61	100	1	66	100
PM BUILD Queue	**1**	**35**	**75**	**1**	**61**	**100**	**1**	**66**	**100**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*291*	*600*	*1*	*39*	*Cont*	*1*	*440*	*600*
AM NO BUILD Queue	2	334	225	1	45	75	1	505	500
AM BUILD Queue	**2**	**334**	**225**	**1**	**45**	**75**	**1**	**535**	**525**
Existing Lane Length	*2*	*44*	*600*	*1*	*18*	*Cont*	*1*	*266*	*600*
PM NO BUILD Queue	2	56	75	1	23	50	1	340	375
PM BUILD Queue	**2**	**56**	**75**	**1**	**23**	**50**	**1**	**349**	**375**

	AM	PM
Cycle Length:	100	100

NOTE: Queue lengths are in feet.

The following table summarizes the recommendations of the queuing analysis for this intersection:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	125	650	650	**650' plus transition.**
Eastbound Right Turn:*	150	10	10	No Recommendation
Westbound Left Turn:	50	50	50	No Recommendation
Westbound Right Turn:*	300	150	150	No Recommendation
Northbound Left Turn:	50	75	75	No Recommendation
Northbound Right Turn:*	75	50	50	No Recommendation
Southbound Left Turn:	600	225	225	No Recommendation
Southbound Right Turn:*	600	250	260	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queuing analysis recommends lengthening the eastbound left turn lane from 125 feet plus transition to 650 feet plus transition. This lengthening cannot be accomplished without adversely affecting the adjacent left turn lane for the driveway to the west of the intersection. Therefore no recommendations are made for the queuing at the intersection of Gibson Blvd. / Louisiana Blvd.

Intersection #2 – Gibson Blvd. / Carlisle Blvd. - Pages A-63 thru A-66

The results of the implementation year analysis of the signalized intersection of Gibson Blvd. / Carlisle Blvd. are summarized in the following table:

Intersection: 2 - GIBSON BLVD. / CARLISLE BLVD.

		2020 AM Peak Hour BUILD						2020 PM Peak Hour BUILD					
		(EXIST. GEOM.)				(MIT. GEOM.)		(EXIST. GEOM.)				(MIT. GEOM.)	
		NO BUILD		BUILD		BUILD		NO BUILD		BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	A - 9.4	1	B - 13.4	1	B - 13.8	1	E - 66.7	1	**F** - 170	1	**F** - 153
	T	3	B - 17.2	3	C - 21.4	3	C - 22.1	3	C - 26.1	3	C - 27.9	3	D - 45.6
	R	1	B - 11.2	1	B - 13.8	1	B - 14.3	1	A - 5.1	1	A - 6.5	1	B - 10.8
WB	L	1	B - 19.8	1	C - 22.7	1	C - 23.2	1	C - 20.1	1	C - 23.3	1	C - 23.8
	T	3	B - 13.0	3	B - 16.7	3	B - 17.2	3	D - 38.8	3	E - 72.2	3	E - 62.6
	R	1	A - 7.2	1	A - 9.6	1	A - 9.9	1	B - 19.3	1	C - 22.9	1	C - 22.1
NB	L	1	C - 32.8	1	C - 33.2	1	C - 30.9	1	**F** - 110	1	**F** - 228	1	**F** - 113
	T	2	D - 35.1	2	C - 33.6	2	C - 33.4	2	C - 34.0	2	D - 35.6	2	D - 37.2
	R	>	D - 35.2	>	C - 33.7	>	C - 33.4	>	C - 34.2	>	D - 35.8	>	D - 37.4
SB	L	1	C - 32.2	1	C - 21.7	1	C - 31.5	1	D - 49.2	1	D - 47.1	1	D - 47.1
	T	2	D - 37.2	2	D - 35.8	1	D - 35.3	2	D - 52.4	2	D - 50.2	2	D - 50.2
	R	>	D - 42.9	>	**F** - 95.7	1	D - 37.4	>	E - 63.3	>	**F** - 156	>	D - 43.4
Intersection:		***B - 17.7***		***C - 24.3***		***C - 21.3***		***D - 44.6***		***F - 81.8***		***E - 65.3***	

Note: ">" designates a shared right or left turn lane.

The implementation year analysis of the signalized intersection of Gibson Blvd. / Carlisle Blvd. indicates that that the levels-of-service will be acceptable for both the AM Peak Hour NO BUILD and BUILD conditions, except for the southbound right turn movement which will experience excessive delays during the AM Peak Hour BULD condition. The intersection will also experience excessive delays during the PM Peak Hour NO BUILD and BUILD conditions for the eastbound left turn and the northbound left turn, and the southbound right turn movements. This intersection is completely built-out with buildings in close proximity to the roadway at all corners of the intersection. Therefore, no intersection expansion can be done without acquiring right-of-way and demolishing existing buildings. However, based on projected volumes, there is a potential restriping of the north leg of the intersection that would improve its operational levels-of-service. The north leg of the intersection is currently configured with a southbound exclusive left turn lane, a southbound thru lane, and a southbound thru / right turn lane. Converting the southbound thru / right turn lane to an exclusive right turn lane with a right turn overlap arrow indication on the signal will improve operation. It appears that the right turn overlap arrow is already installed on the signal head and is probably operational. Therefore, to effect this new approach plan, the outside southbound lane would need to be clearly marked as a right turn only lane with an arrow on the pavement plus supplemental signage.

The following table summarizes the results of the queuing analysis for this intersection:

Queueing Analysis Summary Sheet

Project: Sunport ACE Project

Intersection: **Gibson Blvd / Carlisle Blvd**

2020

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*78*	*250*	*3*	*1,361*	*Cont*		*1*	*281*	*550*
AM NO BUILD Queue	1	104	150	3	1,809	675		1	373	400
AM BUILD Queue	**1**	**163**	**200**	**3**	**1,874**	**700**		**1**	**374**	**400**
Existing Lane Length	*1*	*127*	*250*	*3*	*972*	*Cont*		*1*	*7*	*550*
PM NO BUILD Queue	1	186	**275**	3	1,423	**675**		1	10	50
PM BUILD Queue	**1**	**324**	**450**	**3**	**1,601**	**750**		**1**	**13**	**50**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*109*	*325*	*3*	*961*	*Cont*		*1*	*43*	*220*
AM NO BUILD Queue	1	115	150	3	1,013	400		1	45	75
AM BUILD Queue	**1**	**115**	**150**	**3**	**1,164**	**450**		**1**	**45**	**75**
Existing Lane Length	*1*	*14*	*325*	*3*	*1,747*	*Cont*		*1*	*121*	*220*
PM NO BUILD Queue	1	15	50	3	1,926	**875**		1	133	225
PM BUILD Queue	**1**	**15**	**50**	**3**	**2,040**	**>1,000**	*	**1**	**133**	**225**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*23*	*200*	*2*	*3*	*Cont*		*0*	*3*	*0*
AM NO BUILD Queue	1	62	100	2	8	25		0	8	25
AM BUILD Queue	**1**	**63**	**100**	**2**	**8**	**25**		**0**	**8**	**25**
Existing Lane Length	*1*	*352*	*200*	*2*	*79*	*Cont*		*0*	*48*	*0*
PM NO BUILD Queue	1	569	700	2	128	125		0	78	150
PM BUILD Queue	**1**	**572**	**700**	**2**	**128**	**125**		**0**	**78**	**150**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*87*	*175*	*2*	*71*	*Cont*		*0*	*97*	*0*
AM NO BUILD Queue	1	135	175	2	110	100		0	150	200
AM BUILD Queue	**1**	**135**	**175**	**2**	**110**	**100**		**0**	**248**	**275**
Existing Lane Length	*1*	*63*	*175*	*2*	*6*	*Cont*		*0*	*91*	*0*
PM NO BUILD Queue	1	67	125	2	6	25		0	97	**175**
PM BUILD Queue	**1**	**67**	**125**	**2**	**6**	**25**		**0**	**211**	**300**

	AM	PM
Cycle Length:	100	130

NOTE: Queue lengths are in feet.

The following table summarizes the recommendations of the queuing analysis for this intersection:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	250	275	450	**450' plus transition.**
Eastbound Right Turn:*	550	200	200	No Recommendation
Westbound Left Turn:	325	150	150	No Recommendation
Westbound Right Turn:*	220	110	110	No Recommendation
Northbound Left Turn:	200	700	700	**700' plus transition.**
Northbound Right Turn:*	0	80	80	No Recommendation
Southbound Left Turn:	175	175	175	No Recommendation
Southbound Right Turn:*	0	100	150	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queuing analysis recommends lengthening the eastbound left turn lane from 250 feet plus transition to 450 feet plus transition and lengthening the northbound left turn lane from 200 feet plus transition to 700 feet plus transition. However, this lengthening cannot be accomplished due to the intersection being completely built-out with buildings in close proximity to the roadway at all corners of the intersection, as previously described. Therefore no recommendations are made for the queuing at the intersection of Gibson Blvd. / Carlisle. NOTE: It may be possible to lengthen the northbound left turn lane a slight amount based on sufficient pavement width. It is recommended that an accurate topographic survey of the existing south approach be obtained to determine if the northbound left turn lane can be extended somewhat. The minimum left turn lane width should be 10.5 feet. The left turn lane should not be extended such that the width does not meet that width requirement.

Intersection #3 – Gibson Blvd. / Girard Blvd. - Pages A-67 thru A-72

The results of the implementation year analysis of the signalized intersection of Gibson Blvd. / Girard Blvd. are summarized in the following table:

Intersection: 3 - GIBSON BLVD. / GIRARD BLVD.

2020 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) CASE "Y"	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	A - 7.4	1	B - 13.0	1	B - 15.1
	T	3	B - 17.8	3	D - 45.0	3	D - 38.2
	R	1	A - 8.1	1	C - 22.0	1	C - 21.2
WB	L	1	C - 24.5	1	**F** - 96.4	1	E - 74.3
	T	3	A - 6.0	3	A - 8.3	3	B - 13.0
	R	1	A - 4.9	1	A - 6.8	1	A - 7.6
NB	L	1	D - 35.4	1	D - 47.2	2	**F** - 84.6
	T	2	D - 36.7	2	D - 38.0	2	D - 49.4
	R	>	D - 45.0	>	**F** - 95.4	1	D - 39.1
SB	L	1	C - 34.4	1	E - 56.2	1	D - 48.4
	T	1	C - 34.1	1	D - 38.4	1	D - 54.6
	R	1	C - 30.7	1	C - 33.0	1	D - 48.0
Intersection:		***B - 15.8***		***D - 39.1***		***D - 35.2***	

2020 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) CASE "Y"	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	C - 33.5	1	E - 77.0	1	D - 49.5
	T	3	B - 14.1	3	C - 34.4	3	C - 30.9
	R	1	A - 8.2	1	B - 10.4	1	B - 10.2
WB	L	1	B - 12.5	1	D - 54.3	1	D - 44.9
	T	3	B - 17.5	3	D - 53.0	3	B - 19.5
	R	1	A - 9.5	1	A - 3.0	1	A - 0.4
NB	L	1	D - 42.4	1	**F** - 155	2	E - 79.4
	T	2	D - 45.7	2	D - 41.8	2	D - 42.8
	R	>	E - 72.3	>	E - 76.1	1	D - 49.7
SB	L	1	D - 43.9	1	D - 45.8	1	D - 44.5
	T	1	D - 42.2	1	D - 50.9	1	E - 55.4
	R	1	D - 41.3	1	D - 46.6	1	D - 50.7
Intersection:		***B - 19.7***		***E - 55.6***		***C - 32.8***	

Note: ">" designates a shared right or left turn lane.

Mitigated northbound geometry actually consists of dual left turn lanes, one thru lane, one shared thru/right turn lane, and one right turn lane.

The implementation year analysis of the signalized intersection of Gibson Blvd. / Girard Blvd. indicates that that some of the delays will be excessive for both the AM Peak Hour and PM Peak Hour NO BUILD conditions and will experience excessive delays for the westbound left turn and northbound right turn movements during the AM Peak Hour BUILD condition. The intersection will also experience excessive delays for the PM Peak Hour BUILD condition for the eastbound left turn and the northbound left and right turn movements. The intersection may be mitigated by constructing northbound dual left turn lanes, two thru lanes, and one exclusive right turn lane. This will require acquiring right-of-way north of Gibson Blvd. in order to widen the median and align the northbound thru lanes through the intersection. As an alternative, if the northbound right turn queuing becomes excessive in the future, the outside northbound thru lane could optionally be reconfigured as a thru / right lane to ease the demand on the exclusive right turn lane. The forecast northbound thru volume is relatively low. The City can make the determination in the future if the alternate geometry is necessary. Synchro 8 Software will not analyze a signalized intersection with a shared thru/turn lane, so this mitigated analysis was performed using the northbound geometry shown in the table, dual left turn lanes, two thru lanes and one exclusive right turn lane, but is closely representative of the proposed mitigated geometry described previously. TEAPAC was also used to analyze this intersection with the existing geometry with the shared thru/right turn lane and is included in the Appendix on Pages A-114 thru A-116. The results do not significantly differ from the Synchro 8 results.

The following table summarizes the results of the queuing analysis for this mitigated intersection:

Queueing Analysis Summary Sheet

Project: Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Intersection: **Gibson Blvd / Girard Blvd**

2020

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*65*	*200*	*3*	*1,697*	*Cont*		*1*	*16*	*200*
AM NO BUILD Queue	1	78	150	3	2,031	>1,000	*	1	19	50
AM BUILD Queue	**1**	**78**	**150**	**3**	**2,079**	**>1,000**	*	**1**	**466**	**600**
Existing Lane Length	*1*	*93*	*200*	*3*	*1,282*	*Cont*		*1*	*7*	*200*
PM NO BUILD Queue	1	111	200	3	1,523	**725**		1	8	**25**
PM BUILD Queue	**1**	**111**	**200**	**3**	**1,608**	**750**		**1**	**203**	**300**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*122*	*340*	*3*	*904*	*Cont*		*1*	*42*	*120*
AM NO BUILD Queue	1	141	225	3	1,048	525		1	49	100
AM BUILD Queue	**1**	**284**	**400**	**3**	**1,048**	**525**		**1**	**49**	**100**
Existing Lane Length	*1*	*128*	*340*	*3*	*1,980*	*Cont*		*1*	*119*	*120*
PM NO BUILD Queue	1	152	**250**	3	2,344	>1,000	*	1	141	225
PM BUILD Queue	**1**	**195**	**300**	**3**	**2,344**	**>1,000**	*	**1**	**141**	**225**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*8*	*150*	*2*	*9*	*Cont*		*1*	*72*	*325*
AM NO BUILD Queue	2	11	25	2	12	25		1	97	175
AM BUILD Queue	**2**	**183**	**175**	**2**	**85**	**100**		**1**	**155**	**250**
Existing Lane Length	*2*	*12*	*150*	*2*	*37*	*Cont*		*1*	*111*	*325*
PM NO BUILD Queue	2	16	**25**	2	50	**75**		1	150	**225**
PM BUILD Queue	**2**	**544**	**400**	**2**	**213**	**200**		**1**	**329**	**450**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*68*	*100*	*1*	*34*	*Cont*		*1*	*61*	*350*
AM NO BUILD Queue	1	73	150	1	36	75		1	65	125
AM BUILD Queue	**1**	**112**	**200**	**1**	**103**	**175**		**1**	**65**	**125**
Existing Lane Length	*1*	*61*	*100*	*1*	*30*	*Cont*		*1*	*103*	*350*
PM NO BUILD Queue	1	71	**125**	1	35	**75**		1	120	200
PM BUILD Queue	**1**	**139**	**225**	**1**	**113**	**200**		**1**	**120**	**200**

	AM	PM
Cycle Length:	130	130

NOTE: Queue lengths are in feet.

The following table summarizes the recommendations of the queuing analysis for this mitigated intersection:

Lane Description	Existing Length (Ft)	NO BUILD Length (Ft)	BUILD Length (Ft)	Lengthen Existing Auxiliary Lane to:
Eastbound Left Turn:	200	200	200	No Recommendation
Eastbound Right Turn:*	200	30	300	**300' plus transition.**
Westbound Left Turn:	340	250	400	**400' plus transition.**
Westbound Right Turn:*	120	110	110	No Recommendation
Northbound Left Turn:	150	25	400	**400' plus transition.**
Northbound Right Turn:*	325	110	230	No Recommendation
Southbound Left Turn:	100	150	225	**225' plus transition.**
Southbound Right Turn:*	350	100	100	No Recommendation

* - Calculated right turn queue lengths have been reduced by 50% to account for right-turns-on red and overlap phases.

The queuing analysis recommends lengthening the eastbound right turn lane from 200 feet plus transition to 300 feet plus transition, lengthening the westbound left turn lane from 340 feet plus transition to 400 feet plus transition, and lengthening the southbound left turn lane from 100 feet plus transition to 225 feet plus transition. The lengthening of the eastbound right turn lane can be accomplished by restriping to reduce the width of the existing excessively wide bike lane to use for the right turn lane. The westbound left turn lane may also be lengthened as recommended. This will require relocation of a street light pole, an electric pull box, meters, and possibly some landscape irrigation lines. The lengthening of the southbound left turn lane cannot be done without adversely affecting the driveway to the north. Therefore, it I not recommended. The queuing analysis also demonstrates that the dual left turn lanes of the mitigated northbound geometry should be 400 feet plus transition and the exclusive right turn lane should be 225 feet plus transition (calculated right turn queuing is reduced by 50% to account for right-turns-on-red and right turn overlap phasing).

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

Intersection #4 - Gibson Blvd. / I-25 W. Ramp - Pages A-73 thru A-80

The results of the analysis of the unsignalized intersection of Gibson Blvd. / I-25 W. Ramp are summarized in the following table:

Intersection: 4 - GIBSON BLVD. / I-25 W. RAMP

		2020 AM Peak Hour BUILD (EXIST. GEOM.)				2020 PM Peak Hour BUILD (EXIST. GEOM.)			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	C - 20.5	1	C - 22.9	1	D - 34.9	1	**F** - 61.2
Intersection:		*u - N/A*		*u - N/A*		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane.

The implementation year analysis of the intersection of Gibson Blvd. / I-25 W. Ramp indicates that that the levels-of-service of the westbound left turn movement will be acceptable for both the AM Peak Hour NO BUILD and BUILD conditions and for the PM Peak Hour NO BUILD condition and will experience excessive delays for the PM Peak HOUR BUILD condition. There is no way to mitigate the intersection without rebuilding the entire interchange due to the placement of the abutments of the I-25 Bridge. Therefore, no recommendation is made for the intersection of Gibson Blvd. / I-25 W. Ramp.

Intersection #5 - Gibson Blvd. / Driveway "A" - Pages A-81 thru A-82

The results of the analysis of the unsignalized intersection of Gibson Blvd. / Driveway "A" are summarized in the following table:

Intersection: 5 - GIBSON BLVD. / DRIVEWAY "A"

		2020 Peak Hour BUILD (EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	B - 14.5	1	B - 14.0
NB	R	1	C - 16.3	1	C - 15.9
Intersection:		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane.

This access is proposed to be a right-in, right-out, left-in only intersection which will serve primarily the northern commercial portion of the proposed development. The HCM 2010 implementation year analysis of Driveway "A" based on Synchro 8 indicates

that that the levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour Build conditions. Also, it will be demonstrated that the intersection of Gibson Blvd. / Girard Blvd. will be improved by implementation of Driveway "A" on Gibson Blvd. The westbound left turn lane on Gibson Blvd. at Driveway "A" will serve as a virtual second left turn lane to assist the one that exists on Gibson Blvd. at Girard Blvd. See the companion report, Sunport ACE Project Access Justification Study dated April 2014 for further details. The design of Driveway "A" should incorporate one exiting lane and two entering lanes so that the left and right turns in will not conflict with one another. Also, see Page 24a for a diagram of the recommended geometry for Driveway "A".

The City of Albuquerque's Development Process Manual requires deceleration lanes for driveways generating 60 or more left or right turns. Therefore, Driveway "A" warrants an eastbound right turn deceleration lane as well as a westbound left turn deceleration lane along Gibson Blvd. Both the eastbound right turn deceleration lane and the westbound left turn deceleration lane should be 400 feet long plus 12.5:1 taper per Table 18.K-1 of the State Access Management Manual.

Intersection #6 - Gibson Blvd. / I-25 E. Ramp - Pages A-83 thru A-90

The results of the analysis of the unsignalized intersection of Gibson Blvd. / I-25 E. Ramp are summarized in the following table:

Intersection: 6 - GIBSON BLVD. / I-25 E. RAMP

		2020 AM Peak Hour BUILD					**2020 PM Peak Hour BUILD**				
		(EXIST. GEOM.)					**(EXIST. GEOM.)**				
		NO BUILD		**BUILD**			**NO BUILD**		**BUILD**		
		Lanes	**LOS-Delay**	**Lanes**	**LOS-Delay**		**Lanes**	**LOS-Delay**	**Lanes**	**LOS-Delay**	
NB	L	1	**F** - 1683	1	**F** - 1908	L	1	**F** - 52.8	1	**F** - 56.9	
Intersection:		***u - N/A***		***u - N/A***			***u - N/A***		***u - N/A***		

Note: ">" designates a shared right or left turn lane.

The implementation year analysis of the intersection of Gibson Blvd. / I-25 E. Ramp indicates that that the northbound left turn movement will experience excessive delays for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions. There is no way to mitigate the already failing condition at the intersection without rebuilding the interchange. Due to the fact that this is a NO BUILD failing situation and based on the type of intersection, this is more likely a regional issue than one caused by any one development in the area. Therefore, this study concludes that there are no recommendations at the intersection of Gibson Blvd. / I-25 E. Ramp.

Intersection #7 – Miles Rd. (Driveway "B") / Girard Blvd. - Pages A-91 thru A-96

The results of the analysis of the unsignalized intersection of Miles Rd. (Driveway "B") / Girard Blvd. are summarized in the following table:

Standard Two-Way Stop Intersection Option

Intersection: 7 - MILES RD. / GIRARD BLVD.

2020 Peak Hour BUILD

		(EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	>	E - 46.6	>	**F** - 192
	T	1	E - 46.6	1	**F** - 192
	R	>	E - 46.6	>	**F** - 192
WB	L	>	E - 38.1	>	E - 38.7
	T	1	E - 38.1	1	E - 38.7
	R	1	A - 0.0	1	A - 0.0
NB	L	>	A - 9.0	>	A - 8.0
	T	1	A - 0.0	1	A - 8.0
	R	>	A - 0.0	>	A - 8.0
SB	L	1	A - 8.4	1	A - 9.6
	T	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0
Intersection:		***u - 6.0***		***u - 23.9***	

Note: ">" designates a shared right or left turn lane.

Roundabout Option

Intersection: 7 - MILES RD. / GIRARD BLVD.

2020 Peak Hour BUILD

		(MITIGATED GEOMETRY)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	>	B - 10.9	>	A - 9.1
	T	1	B - 10.9	1	A - 9.1
	R	>	B - 10.9	>	A - 9.1
WB	L	>	A - 4.6	>	A - 8.9
	T	1	A - 4.6	1	A - 8.9
	R	1	A - 0.0	1	A - 0.0
NB	L	>	A - 7.9	>	C - 20.3
	T	1	A - 7.9	1	C - 20.3
	R	>	A - 7.9	>	C - 20.3
SB	L	>	C - 22.4	>	B - 12.1
	T	1	C - 22.4	1	B - 12.1
	R	1	A - 4.4	1	A - 3.6
Intersection:		***u - 14.7***		***u - 10.2***	

This access will be the extension of an existing tee intersection of Miles Rd. / Girard Blvd. The implementation year analysis of the intersection of Miles Rd. / Girard Blvd. (proposed Driveway "B") indicates that that the intersection will experience excessive delays for the eastbound and westbound movements as a four-legged two-way stop controlled intersection for both the AM Peak Hour and PM Peak Hour BUILD conditions. The intersection may be mitigated as a roundabout with a westbound free right turn and an exclusive southbound right turn lane. Both scenarios are acceptable. No recommendation is made for either option. If the developer opts for the Standard Two-Way Stop Intersection Option, then the intersection should include a southbound right turn lane and a westbound right turn (free right) lane with an add lane.

If the roundabout option is implemented, then the northbound and eastbound approach may be single lane approaches, but the westbound and southbound approaches should include a right turn lane. In the case of the westbound right turn lane, it should be a free right turn with an add lane.

Intersection #8 - Driveway "C" / Girard Blvd. - Pages A-97 thru A-98

The results of the analysis of the unsignalized intersection of Driveway "C" / Girard Blvd. are summarized in the following table:

Intersection: 8 - DRIVEWAY "C" / GIRARD BLVD.

2020 Peak Hour BUILD

		(EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 9.9	>	B - 11.6
	R	>	A - 9.9	>	B - 11.6
SB	L	>	A - 8.1	>	A - 8.0
	T	1	A - 8.1	1	A - 8.0
Intersection:		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane.

This access is proposed to be a full access tee intersection. The implementation year analysis of Driveway "C" indicates that that the levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour BUILD conditions. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Driveway "C" / Girard Blvd.

Intersection #9 - Driveway "D" / Girard Blvd. - Pages A-99 thru A-100

The results of the analysis of the unsignalized intersection of Driveway "D" / Girard Blvd. are summarized in the following table:

Intersection: 9 - DRIVEWAY "D" / GIRARD BLVD.

2020 Peak Hour BUILD

		(EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 9.0	>	A - 9.8
	R	>	A - 9.0	1	A - 9.8
SB	L	>	A - 7.7	>	A - 7.6
	T	1	A - 7.7	1	A - 7.6
Intersection:		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane.

This access is proposed to be a full access tee intersection. The implementation year analysis of Driveway "D" indicates that that the levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour BUILD conditions. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Driveway "D" / Girard Blvd.

Intersection #10 - Driveway "E" / Girard Blvd. - Pages A-101 thru A-102

The results of the analysis of the unsignalized intersection of Driveway "E" / Girard Blvd. are summarized in the following table:

Intersection: 10 - DRIVEWAY "E" / GIRARD BLVD.

2020 Peak Hour BUILD

		(EXIST. GEOM.)			
		AM BUILD		PM BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 8.8	>	A - 9.0
	R	>	A - 8.8	>	A - 9.0
SB	L	>	A - 7.5	>	A - 7.4
	T	1	A - 7.5	1	A - 7.4
Intersection:		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane.

This access is proposed to be a full access tee intersection. The implementation year analysis of Driveway "E" indicates that that the levels-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour BUILD conditions. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Driveway "E" / Girard Blvd.

It should be noted that Levels of Service (LOS) for unsignalized intersections cannot be compared directly with Levels of Service for signalized intersections. There are different level-of-service thresholds for signalized and unsignalized intersections. Following are two tables that define the differentiation between the two.

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

Generally speaking, a Level-of-Service D or better is an acceptable parameter for design purposes.

CONCLUSIONS

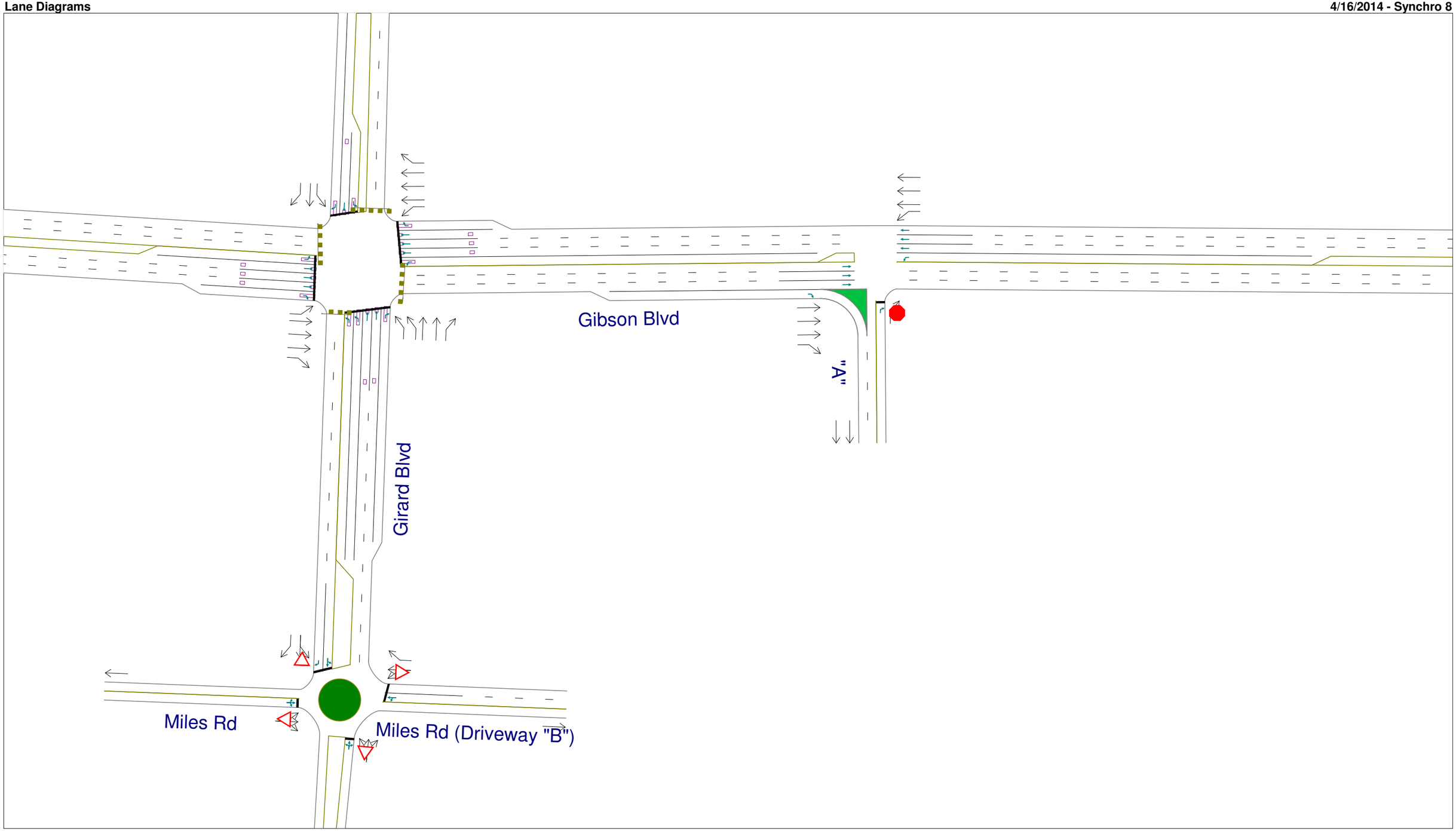
The results of the analyses of this study demonstrate that the implementation of the Sunport ACE Project as shown on Appendix Page A-2 will have some adverse impact on the adjacent transportation system for the 2020 Implementation Year, specifically near the proposed project site that need to be mitigated as well as regional issues that should be explored and mitigated by a governmental agency. Utilizing projected traffic volumes resulting from the development of this site into a facility such as the one shown on Appendix Page A-2 in conjunction with projected 2020 traffic volumes in this report concludes that impact to the adjacent transportation system can be mitigated, provided that the following recommendations are followed:

RECOMMENDATIONS

- Design of the project should maintain adequate sight distances for traffic approaching, entering, and exiting the site from the proposed driveways.
- All driveways should be constructed utilizing 30 feet minimum radius curb returns or larger if needed to accommodate delivery trucks and buses. The new development should be implemented utilizing one access point on Gibson Blvd. (See companion report, Sunport ACE Project Access Justification Study dated April 2014 for further details) and four access points on Girard Blvd.
    - Driveway "A" (on Gibson Blvd. approximately 685 feet [centerline-to-centerline] east of the Gibson Blvd. / Girard Blvd. intersection) should be constructed as a right-in, right-out, left-in only intersection with two entering lanes and one exiting lane. An eastbound right turn deceleration lane and a westbound left turn deceleration lane are warranted on Gibson Blvd. at Driveway "A". Each should be designed and constructed as described on Pages 18 and 19 of this report. Also, the eastbound right turn movement should be designed with a right turn channelized ramp (approximately 75 feet radius) with an add lane to avoid conflict with entering traffic from the westbound left turn movement.
    - Miles Rd. / Girard Blvd. (Driveway "B") (on Girard Blvd. approximately 690 feet [centerline-to-centerline] south of the Gibson Blvd. / Girard Blvd. intersection) should be constructed either as a roundabout or a standard two-way stop controlled intersection to include one free westbound right turn lane and to comply with the recommendations on Page 20 of this report.
    - Driveway "C" (on Girard Blvd. approximately 1,285 feet [centerline-to-centerline] south of the Gibson Blvd. / Girard Blvd. intersection) should be constructed as a full access tee intersection with one entering lane and one exiting lane.
    - Driveway "D" (on Girard Blvd. approximately 2,500 feet [centerline-to-centerline] south of the Gibson Blvd. / Girard Blvd. intersection) should be constructed as a full access tee intersection with one entering lane and one exiting lane.

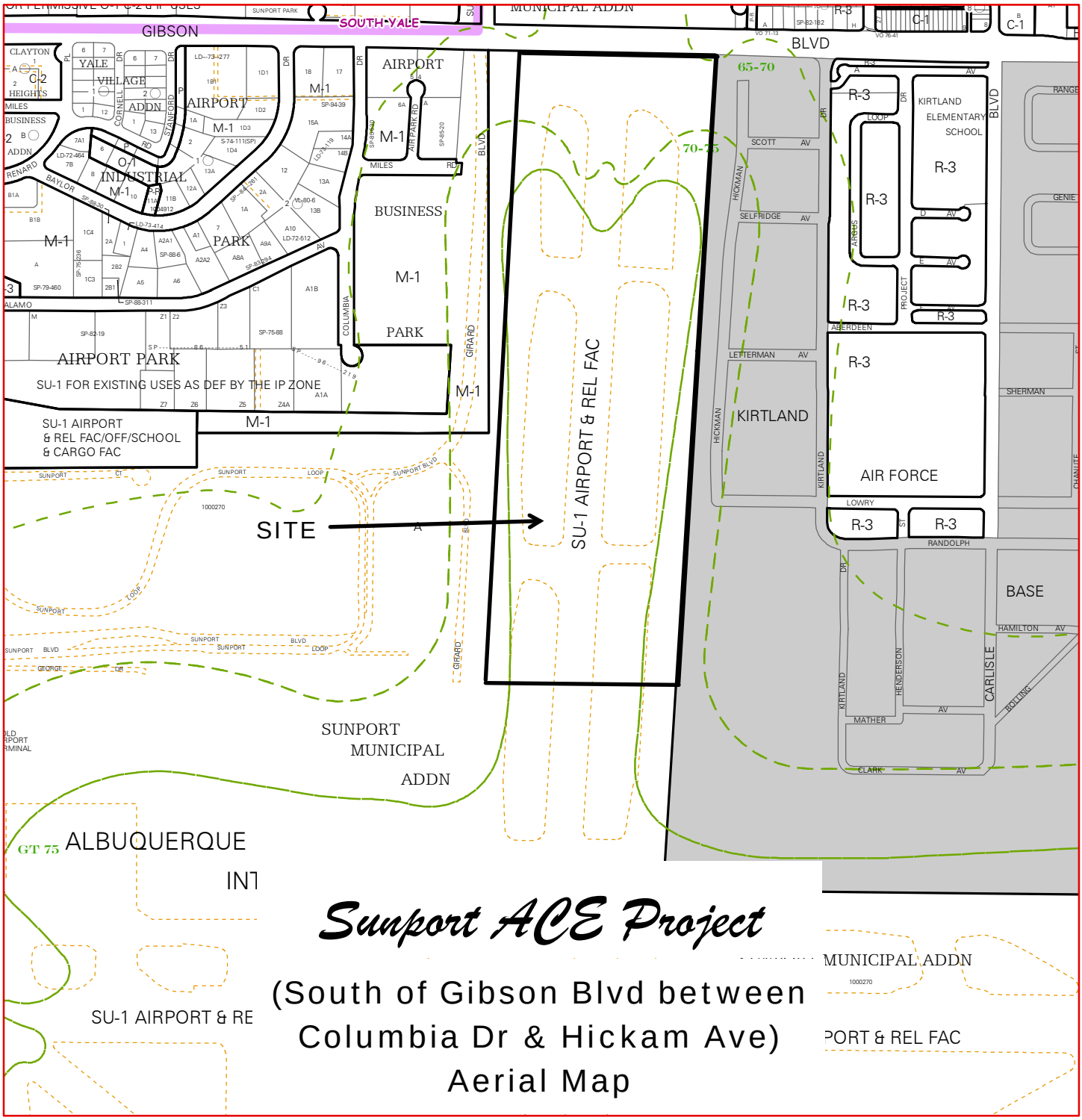
- Driveway “E” (on Girard Blvd. approximately 3,500 feet [centerline-to-centerline] south of the Gibson Blvd. / Girard Blvd. intersection) should be constructed as a full access tee intersection with one entering lane and one exiting lane.

- **Gibson Blvd. / Girard Blvd.** - Construct northbound dual left turn lanes (400 feet plus transition), two thru lanes, and one exclusive right turn lane (225 feet plus transition). (This may require acquiring right-of-way north of Gibson Blvd. in order to widen the median and align the northbound thru lanes through the intersection.) Lengthen the eastbound right turn lane from 200 feet plus transition to 300 feet plus transition (This will require restriping to take some of the length and width of the existing bike lane) and the westbound left turn lane from 340 feet plus transition to 400 feet plus transition (This will require relocation of a street light pole, an electric pull box, meters, and possibly some landscape irrigation lines.) It may be necessary to reduce the number of southbound lanes on Girard Blvd. south of Gibson Blvd. to accommodate the northbound recommended geometry. This may be necessary, but is not highly recommended.
- **Gibson Blvd. / Carlisle Blvd.** – designate the outside southbound approach land on Carlisle Blvd. at Gibson Blvd. as a right turn only lane with appropriate pavement markings and supplemental signage. Ensure that the right turn overlap phase arrow is operational. Also, obtain a topographic survey of the south leg of Carlisle Blvd. at Gibson Blvd. for the purpose of determining if the northbound left turn lane can be extended within the pavement taper of Carlisle Blvd. Minimum left turn lane width shall be 10.5 feet.


Gibson Blvd
"A"
Girard Blvd
Miles Rd
Miles Rd (Driveway "B")

Appendix

APPENDIX



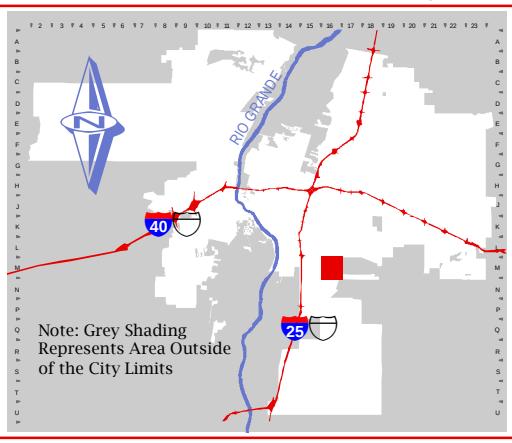
Sunport ACE Project

(South of Gibson Blvd between Columbia Dr & Hickam Ave) Aerial Map

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

Albuquerque Geographic Information System

Map amended through: 1/24/2011



Zone Atlas Page:

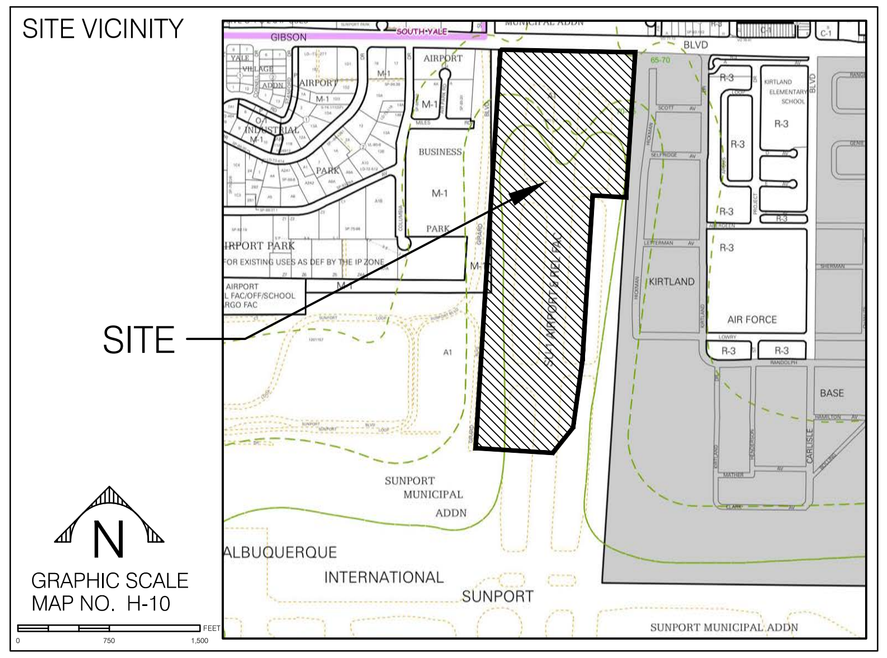
M-16-Z

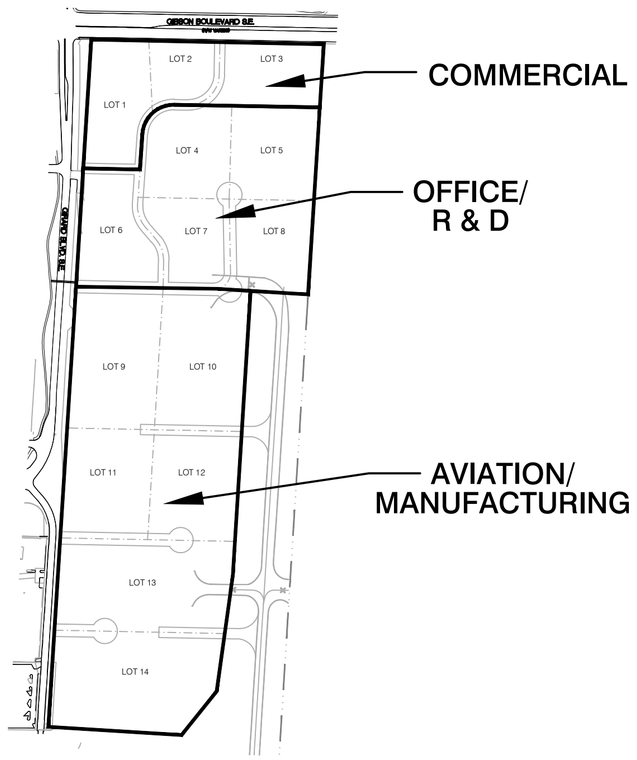
Selected Symbols

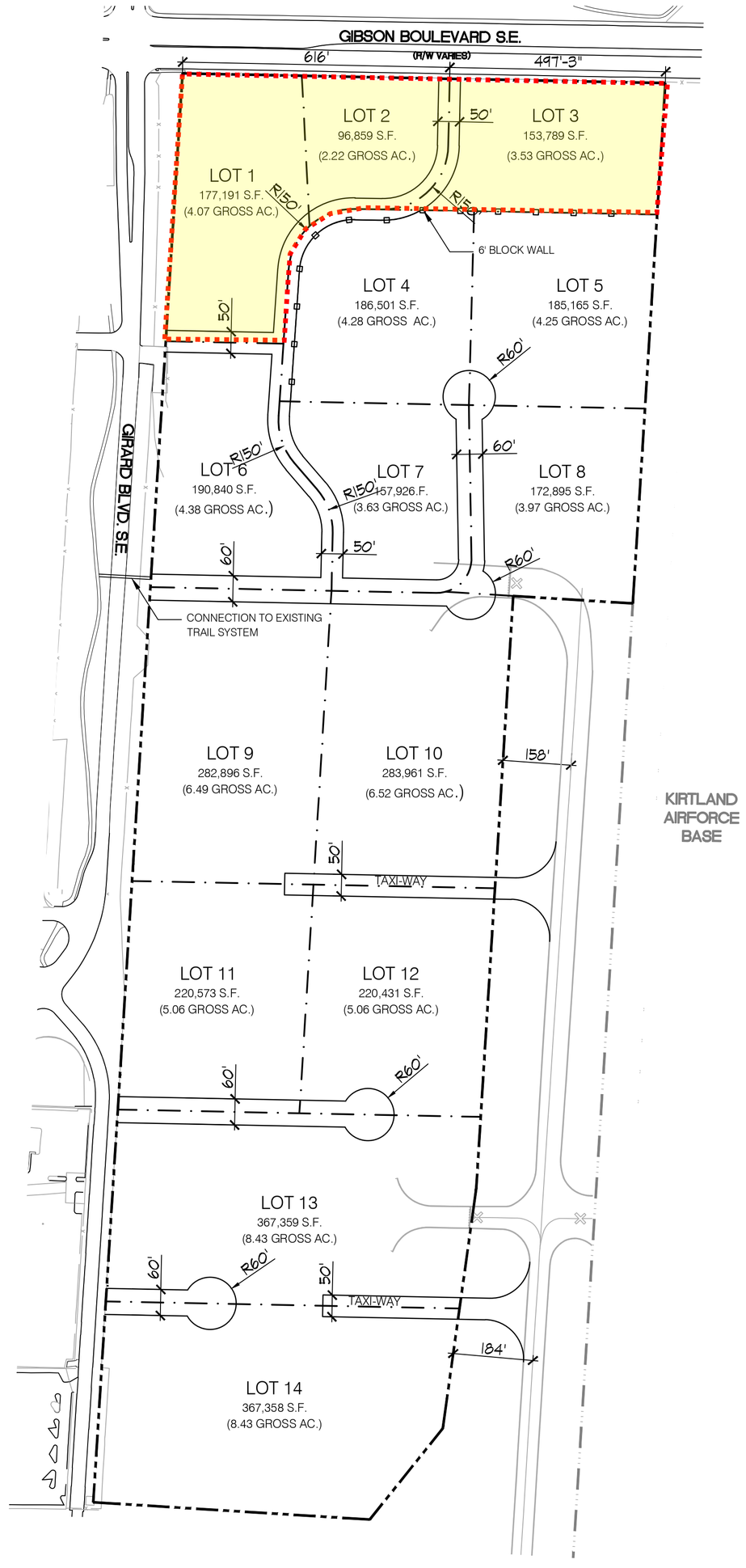
- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

A-1







LEGEND

PROPERTY BOUNDARY LINE

SUNPORT PROPERTY LINE

SITE PLAN FOR SUBDIVISION - REQUIRED INFORMATION

THE SITE:
The Site consists of approximately 70.35 acres. The property is bounded on the west by Girard Boulevard, to the north by Gibson Boulevard, to the east by Kirtland AFB, and Albuquerque International Sunport to the south.

ZONING AND PROPOSED USE:
The Site is zoned SU-1 Airport and Related Facilities and is part of the Sunport Master Plan. Land use includes commercial, retail and office along Gibson Boulevard, and industrial, manufacturing, warehousing, and office uses to the south. The property ownership will remain with City of Albuquerque Aviation Department and individual parcels will be leased to users. No subdivision actions are anticipated for this property. Lot lines shown on the site plan are illustrative.

APPLICABLE PLANS: Albuquerque Sunport Master Development Plan governs this site and the rest of the Sunport property.

PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS:

Vehicular Access: The primary access to the ACE property is from Gibson Boulevard, a limited access arterial, and from Girard Boulevard, an urban collector.

Transit - Transit routes 217 and 96 run along Gibson Boulevard and route 222 runs along Girard Boulevard. A bus stop is located in front of this property along Gibson Boulevard and another one is located across the street along Girard Boulevard.

Bicycle Access - The Gibson Trail, a multi-use, paved trail runs along the north side of Gibson Boulevard and south along Girard Boulevard and bike lanes are within the Gibson right-of-way.

Pedestrian Access - Internal sidewalk and pedestrian facilities will be designed consistent with the design guidelines included in this site plan and future site plans for building permits. Six foot sidewalks shall be constructed adjacent to Gibson Boulevard and Girard Boulevard.

BUILDING HEIGHTS AND SETBACKS: Maximum building height for the commercial area along Gibson Boulevard shall be pursuant to the O-1 Zone. The maximum building height for the southern parcels shall be pursuant to the O-1 Zone and Federal Aviation Administration Airspace Review and Regulations (See Design Standards, Section H. Building and Structure Heights).

MAXIMUM FAR/DENSITY: Maximum F.A.R. is .30

LANDSCAPE PLAN:
Landscape plans shall be submitted with future Site Plans for Building Permit and shall be consistent with the Water Conservation Landscaping and Water Waste Ordinance, Pollen Control Ordinance, and the Design Standards (Sheet 2).

PROJECT NUMBER:
Application Number:

This Plan is consistent with the specific Site Development Plan approved by the Environmental Planning Commission (EPC), dated _____ and the Findings and Conditions in the Official Notification of Decision are satisfied.

Is an Infrastructure List required? ( ) Yes ( ) No If yes, then a set of approved DRC plans with a work order is required for any construction within Public Right-of-Way or for construction of public improvements.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL:

Traffic Engineering, Transportation Division	Date
ABCWUA	Date
Parks and Recreation Department	Date
City Engineer	Date
Solid Waste Management	Date
DRB Chairperson, Planning Department	Date

AVIATION CENTER OF EXCELLENCE

SITE PLAN FOR SUBDIVISION

Prepared For:
City of Albuquerque
Aviation Department

Prepared By:
Consensus Planning, Inc.
302 8th Street NW
Albuquerque, NM 87102

Molzen Corbin
2701 Miles Road SE
Albuquerque, NM 87106

Scale: 1" = 200'

NORTH 100 0 200 400

MARCH, 2014

Sunport ACE Project

(South of Gibson Blvd between Columbia Dr & Hickam Ave)
Aerial Map

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.

Ronald Brown

Ron Brown
Chair, MRCOG/MTB

MR COG
Mid-Region Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

2012 Traffic Flows
for the Greater Albuquerque Area

Standard Data 9500 — Link Volume is based on traffic count data accepted by the NM Department of Transportation Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NMSTMS).

Non-Standard Data *9500* — Link Volume is based either on traffic count data not in compliance with the NMSTMS or on professional judgement. NMDOT recommends that nonstandard data be used with caution.

Map prepared by the Mid-Region Council of Governments in cooperation with the New Mexico Department of Transportation, the local governments in the Albuquerque Metropolitan Planning Area, and the U.S. Department of Transportation, Federal Highway Administration.

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

COMMENT	USE (ITE CODE) / DESCRIPTION		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
			GROSS	ENTER	EXIT	ENTER	EXIT
	Summary Sheet	Units					
Tract "A"	Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	135	135
Tract "A"	Shopping Center (820)	68.00	5,285	76	47	222	241
Tract "A"	Variety Store (814)	20.00	1,281	38	38	68	68
Tract "A"	High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	59	49	59	39
Tract "B"	Manufacturing (140)	218.00	867	118	33	55	99
Tract "C"	General Office Building (710)	39.30	646	80	11	21	102
Tract "C"	Warehousing (150)	91.70	458	62	17	14	42
Tract "D"	Warehousing (150)	330.00	1,376	126	33	32	96
Tract "E"	Warehousing (150)	330.00	1,376	126	33	32	96
Tract "E"	General Office Building (710)	33.00	565	69	9	20	96
	Subtotal		**16,382**	**856**	**372**	**658**	**1,014**

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Gasoline / Service Station w/ Convenience Market (945)	***20***	3,256	102	102	135	135
	Fueling Positions					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***162.78*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

T = ***10.16*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***13.51*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Comments:

Tract "A"

Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Shopping Center (820)	***68.00***	5,285	76	47	222	241
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.65*** **Ln(X) +** ***5.83***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = ***0.61*** **Ln(X) +** ***2.24***
62% Enter, ***38%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

Ln(T) = ***0.67*** **Ln(X) +** ***3.31***
48% Enter, ***52%*** Exit

Comments:
Tract "A"
9 Acres at 0.25 FAR = 2.25 Acres (98,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Variety Store (814)	*20.00*	1,281	38	38	68	68
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***64.03*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

T = ***3.81*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***6.82*** **(X) +** ***0***

50% Enter, ***50%*** Exit

Comments:

Tract "A"
9 Acres at 0.25 FAR = 2.25 Acres (98,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
High Turnover (Sit-Down) Restaurant (932)	***10.00***	1,272	59	49	59	39
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***127.15*** **(X) +** ***0***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

T = ***10.81*** **(X) +** ***0***
55% Enter, ***45%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***9.85*** **(X) +** ***0***
60% Enter, ***40%*** Exit

Comments:
Tract "A"
9 Acres at 0.25 FAR = 2.25 Acres (98,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Manufacturing (140)	*218.00*	867	118	33	55	99
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = *3.88* (X) + *20.7*

50% Enter, *50%* Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

T = *0.83* (X) + *-29.52*

78% Enter, *22%* Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = *0.78* (X) + *-15.97*

36% Enter, *64%* Exit

Comments:

Tract "B"
20 Acres at 0.25 FAR - 5 Acres (218,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
General Office Building (710)	***39.30***	646	80	11	21	102
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.76*** **Ln(X) +** ***3.68***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = ***0.8*** **Ln(X) +** ***1.57***
88% Enter, ***12%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***1.12*** **(X) +** ***78.45***
17% Enter, ***83%*** Exit

Comments:
Tract "C"
10 Acres @ 0.3 FAR = 3 Acres (131,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Warehousing (150)	***91.70***	458	62	17	14	42
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.86*** **Ln(X) +** ***2.24***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

Ln(T) = ***0.55*** **Ln(X) +** ***1.88***
79% Enter, ***21%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

Ln(T) = ***0.64*** **Ln(X) +** ***1.14***
25% Enter, ***75%*** Exit

Comments:
Tract "C"
10 Acres @ 0.3 FAR = 3 Acres (131,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Warehousing (150)	***330.00***	1,376	126	33	32	96
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.86*** **Ln(X) +** ***2.24***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = ***0.55*** **Ln(X) +** ***1.88***
79% Enter, ***21%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

Ln(T) = ***0.64*** **Ln(X) +** ***1.14***
25% Enter, ***75%*** Exit

Comments:
Tract "D"
15 Acres @ 0.5 FAR = 7.5 Acres (330,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Warehousing (150)	***330.00***	1,376	126	33	32	96
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.86*** **Ln(X) +** ***2.24***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = ***0.55*** **Ln(X) +** ***1.88***
79% Enter, ***21%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

Ln(T) = ***0.64*** **Ln(X) +** ***1.14***
25% Enter, ***75%*** Exit

Comments:
Tract "E"
15 Acres @ 0.5 FAR = 7.5 Acres (330,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition

ACE Sunport Project (Gibson Blvd. / Hickam Ave.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
General Office Building (710)	***33.00***	565	69	9	20	96
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

Ln(T) = ***0.76*** **Ln(X) +** ***3.68***
50% Enter, ***50%*** Exit

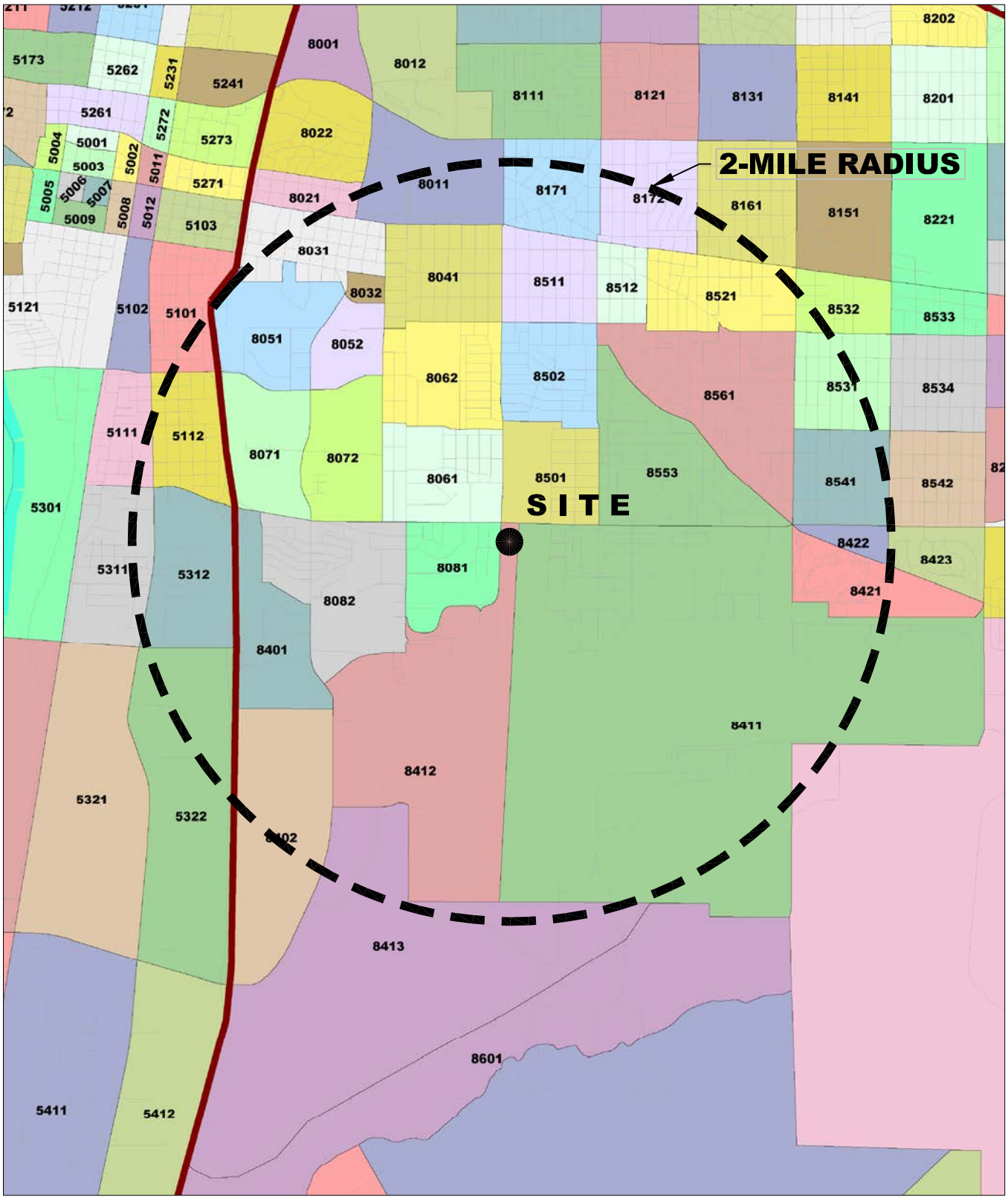
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

Ln(T) = ***0.8*** **Ln(X) +** ***1.57***
88% Enter, ***12%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

T = ***1.12*** **(X) +** ***78.45***
17% Enter, ***83%*** Exit

Comments:
Tract "E"
3 Acres @ 0.25 FAR = 0.75 Acres (33,000 S.F.)
Based on ITE Trip Generation Manual - 9th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Sunport ACE (S. of Gibson between Columbia Dr & Hickam Ave)

Trip Distribution Table

Sunport ACE Project (S. of Gibson between Columbia Dr & Hickam Ave)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(GC2) Gibson Central 2			(GN) Girard Blvd North			(CN) Carlisle Blvd North		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	2020											
Boundary Specified on DASZ Map															
8041	50%	2724	2665	2,695	1,348	**7.29%**	50%	3.65%	674	50%	3.65%	674	0%	0.00%	0
8052	85%	462	447	455	387	**2.09%**	100%	2.09%	387	0%	0.00%	0	0%	0.00%	0
8061	100%	1188	1265	1,227	1,227	**6.64%**	25%	1.66%	307	75%	4.98%	920	0%	0.00%	0
8062	100%	2681	2594	2,638	2,638	**14.27%**	50%	7.14%	1,319	50%	7.14%	1,319	0%	0.00%	0
8071	55%	773	2580	1,677	922	**4.99%**	100%	4.99%	922	0%	0.00%	0	0%	0.00%	0
8072	100%	1227	1397	1,312	1,312	**7.10%**	100%	7.10%	1,312	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	**0.21%**	25%	0.05%	10	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,075	1,075	**5.82%**	100%	5.82%	1,075	0%	0.00%	0	0%	0.00%	0
8401	70%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8411	50%	501	496	499	250	**1.35%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8412	70%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8501	100%	1847	1951	1,899	1,899	**10.27%**	0%	0.00%	0	75%	7.71%	1,424	25%	2.57%	475
8502	100%	1186	1149	1,168	1,168	**6.32%**	0%	0.00%	0	50%	3.16%	584	50%	3.16%	584
8511	60%	1184	1164	1,174	704	**3.81%**	0%	0.00%	0	50%	1.90%	352	50%	1.90%	352
8512	40%	395	371	383	153	**0.83%**	0%	0.00%	0	0%	0.00%	0	100%	0.83%	153
8421	5%	20	26	23	1	**0.01%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8422	100%	484	593	539	539	**2.92%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8521	60%	1287	1505	1,396	838	**4.53%**	0%	0.00%	0	0%	0.00%	0	50%	2.27%	419
8541	5%	2952	2959	2,956	148	**0.80%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8553	100%	2277	2269	2,273	2,273	**12.30%**	0%	0.00%	0	0%	0.00%	0	50%	6.15%	1,137
8561	60%	2624	2579	2,602	1,561	**8.45%**	0%	0.00%	0	0%	0.00%	0	50%	4.22%	781
				26,030	18,482	100.00%			**6,006**			**5,274**			**3,900**
									32.49%			28.53%			21.10%

Trip Distribution Table

Sunport ACE Project (S. of Gibson between Columbia Dr & Hickam Ave)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercia**

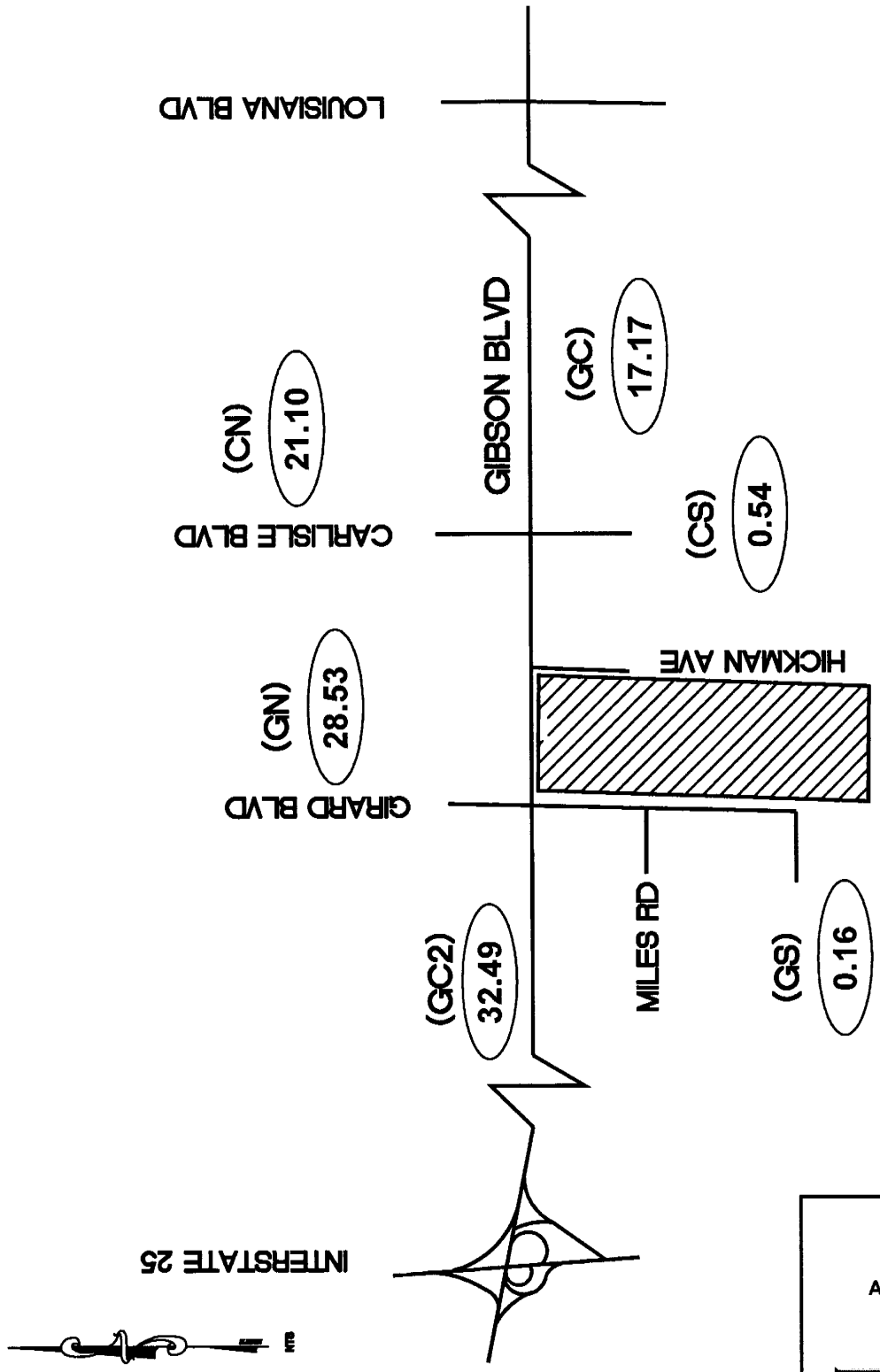
2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CS) Carlisle Blvd South			(GS) Girard Blvd South			(GC) Gibson Blvd Central		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	2020											
Boundary Specified on DASZ Map															
8041	50%	2724	2665	2,695	1,348	**7.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8052	85%	462	447	455	387	**2.09%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8061	100%	1188	1265	1,227	1,227	**6.64%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8062	100%	2681	2594	2,638	2,638	**14.27%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8071	55%	773	2580	1,677	922	**4.99%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8072	100%	1227	1397	1,312	1,312	**7.10%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	**0.21%**	0%	0.00%	0	75%	0.16%	29	0%	0.00%	0
8082	100%	1095	1055	1,075	1,075	**5.82%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8401	70%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8411	50%	501	496	499	250	**1.35%**	40%	0.54%	100	0%	0.00%	0	60%	0.81%	150
8412	70%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8501	100%	1847	1951	1,899	1,899	**10.27%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8502	100%	1186	1149	1,168	1,168	**6.32%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8511	60%	1184	1164	1,174	704	**3.81%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8512	40%	395	371	383	153	**0.83%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8421	5%	20	26	23	1	**0.01%**	0%	0.00%	0	0%	0.00%	0	100%	0.01%	1
8422	100%	484	593	539	539	**2.92%**	0%	0.00%	0	0%	0.00%	0	100%	2.92%	539
8521	60%	1287	1505	1,396	838	**4.53%**	0%	0.00%	0	0%	0.00%	0	50%	2.27%	419
8541	5%	2952	2959	2,956	148	**0.80%**	0%	0.00%	0	0%	0.00%	0	100%	0.80%	148
8553	100%	2277	2269	2,273	2,273	**12.30%**	0%	0.00%	0	0%	0.00%	0	50%	6.15%	1,137
8561	60%	2624	2579	2,602	1,561	**8.45%**	0%	0.00%	0	0%	0.00%	0	50%	4.22%	781
				26,030	18,482	100.00%			**100**			**29**			**3,174**
									0.54%			0.16%			17.17%

Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Distribution Map (%) - Commercial



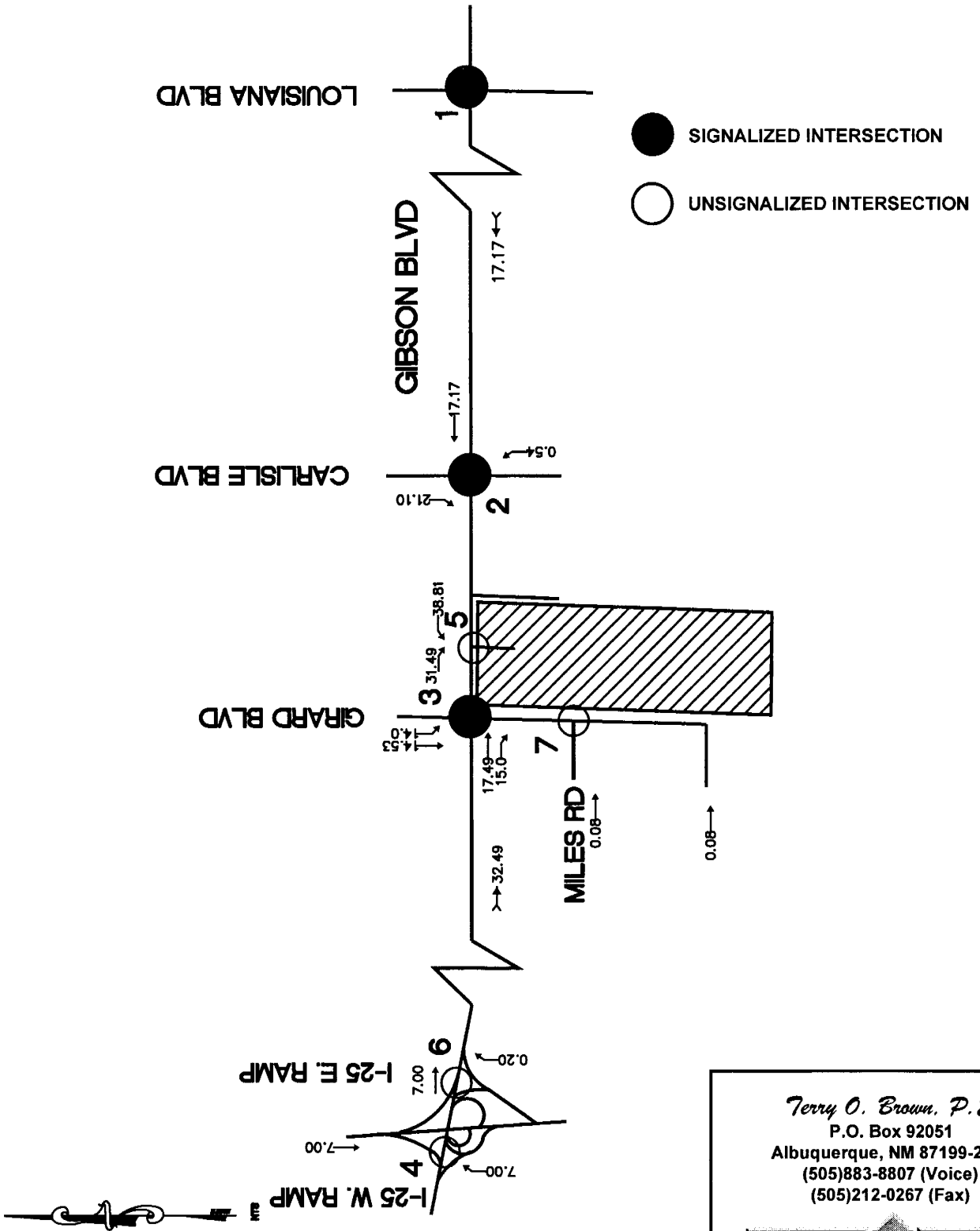
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Entering) - Commercial

Case "Y" - Drive on Gibson



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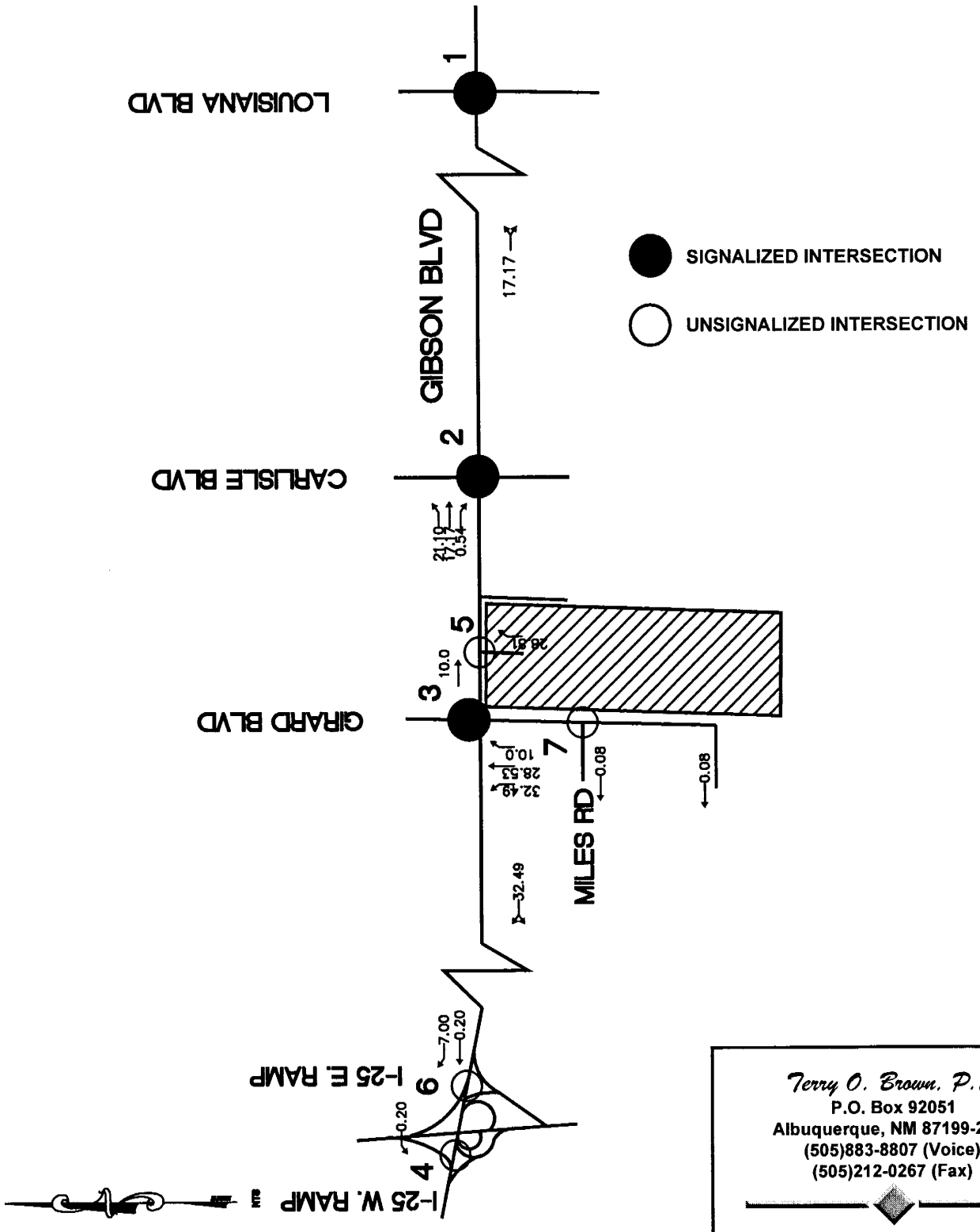
Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Exiting) - Commercial

Case "Y" - Drive on Gibson



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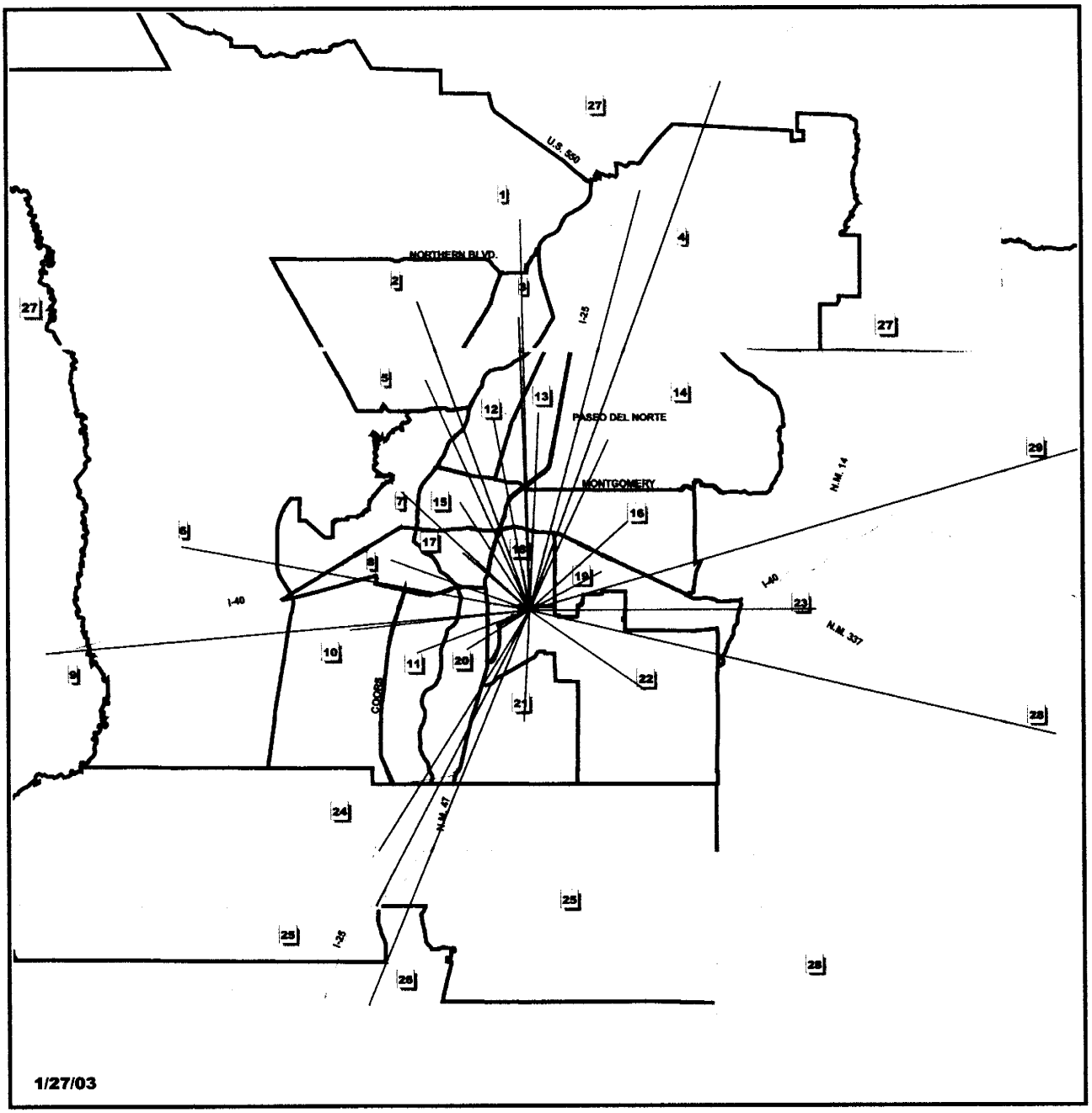


Figure 6

22 Subarea Identification Number

Subareas of the MRCOG Region

Mid-Region
Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

Subarea boundaries extend to county boundary
where full extent of subarea not shown except for Subarea 29
which only includes southern Santa Fe County.

Sunport ACE Project
(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)
Trip Distribution Subarea Map

Trip Distribution Table

Sunport ACE Project (S. of Gibson btwn Columbia Dr & Hickman Ave)

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

									(IN) Interstate 25 North			(GN) Girard Blvd North			(CN) Carlisle Blvd North		
Sub Area I.D.#	**% Sub Area in Study**	**2015 Population**	**2025 Population**	**Interpolated Population for the Year**	**Population in Study**	**Dist. (Mi.)**	**Population / Distance**	**% Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2015	2025	2020													
1	100%	58,191	127,178	92,685	92,685	16.7	5,550	3.41%	100%	3.41%	5,550	0%	0.00%	0	0%	0.00%	0
2	100%	51,766	65,774	58,770	58,770	14.0	4,198	2.58%	100%	2.58%	4,198	0%	0.00%	0	0%	0.00%	0
3	100%	8,277	10,139	9,208	9,208	12.5	737	0.45%	100%	0.45%	737	0%	0.00%	0	0%	0.00%	0
4	100%	14,557	16,645	15,601	15,601	18.5	843	0.52%	100%	0.52%	843	0%	0.00%	0	0%	0.00%	0
5	100%	62,713	67,834	65,274	65,274	10.8	6,044	3.72%	100%	3.72%	6,044	0%	0.00%	0	0%	0.00%	0
6	100%	14,282	52,588	33,435	33,435	15.2	2,200	1.35%	100%	1.35%	2,200	0%	0.00%	0	0%	0.00%	0
7	100%	60,860	79,163	70,012	70,012	7.5	9,335	5.74%	100%	5.74%	9,335	0%	0.00%	0	0%	0.00%	0
8	100%	30,322	30,045	30,184	30,184	6.3	4,791	2.95%	100%	2.95%	4,791	0%	0.00%	0	0%	0.00%	0
9	100%	1,878	2,156	2,017	2,017	20.8	97	0.06%	100%	0.06%	97	0%	0.00%	0	0%	0.00%	0
10	100%	65,364	67,358	66,361	66,361	7.8	8,508	5.23%	25%	1.31%	2,127	0%	0.00%	0	0%	0.00%	0
11	100%	33,469	34,155	33,812	33,812	5.2	6,502	4.00%	25%	1.00%	1,626	0%	0.00%	0	0%	0.00%	0
12	100%	17,724	17,964	17,844	17,844	8.3	2,150	1.32%	100%	1.32%	2,150	0%	0.00%	0	0%	0.00%	0
13	100%	10,624	9,340	9,982	9,982	8.4	1,188	0.73%	100%	0.73%	1,188	0%	0.00%	0	0%	0.00%	0
14	100%	103,826	102,925	103,376	103,376	8.0	12,922	7.95%	100%	7.95%	12,922	0%	0.00%	0	0%	0.00%	0
15	100%	26,850	27,053	26,952	26,952	5.5	4,900	3.01%	100%	3.01%	4,900	0%	0.00%	0	0%	0.00%	0
16	100%	107,409	104,793	106,101	106,101	5.7	18,614	11.45%	40%	4.58%	7,446	0%	0.00%	0	10%	1.14%	1,861
17	100%	23,810	25,804	24,807	24,807	3.8	6,528	4.01%	60%	2.41%	3,917	10%	0.40%	653	0%	0.00%	0
18	100%	43,626	48,198	45,912	45,912	1.8	25,507	15.69%	10%	1.57%	2,551	20%	3.14%	5,101	25%	3.92%	6,377
19	100%	65,561	65,783	65,672	65,672	3.5	18,763	11.54%	0%	0.00%	0	10%	1.15%	1,876	15%	1.73%	2,815
20	100%	9,536	12,198	10,867	10,867	3.2	3,396	2.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	4,225	72,808	38,517	38,517	4.8	8,024	4.93%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22*	100%	3,874	4,214	4,044	4,044	6.0	674	0.41%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	24,135	32,739	28,437	28,437	12.3	2,312	1.42%	100%	1.42%	2,312	0%	0.00%	0	0%	0.00%	0
24	100%	2,815	3,209	3,012	3,012	12.2	247	0.15%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	995	1,136	1,066	1,066	14.2	75	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	86,303	132,754	109,529	109,529	18.3	5,985	3.68%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	23,414	26,278	24,846	24,846	24.0	1,035	0.64%	100%	0.64%	1,035	0%	0.00%	0	0%	0.00%	0
28	100%	20,001	24,230	22,116	22,116	23.2	953	0.59%	100%	0.59%	953	0%	0.00%	0	0%	0.00%	0
29	100%	11,554	14,407	12,981	12,981	24.5	530	0.33%	100%	0.33%	530	0%	0.00%	0	0%	0.00%	0
		987,961	1,278,868	1,133,415	1,133,415		162,609	100.00%		47.63%	77,451		4.69%	7,630		6.80%	11,053
											47.63%			4.69%			6.80%

* - Subarea in which the site it located.

Trip Distribution Table

Sunport ACE Project (S. of Gibson btwn Columbia Dr & Hickman Ave)

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

								(LN) Louisiana Blvd North			(GE) Gibson Blvd East			(GC2) Gibson Central 2		
Sub Area I.D.#	**% Sub Area in Study**	**2015 Population**	**2025 Population**	**Interpolated Population for the Year**	Population in Study	Dist. (Mi.)	**Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2015	**2025**	2020												
1	100%	58,191	127,178	92,685	92,685	16.7	**5,550**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	51,766	65,774	58,770	58,770	14.0	**4,198**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	8,277	10,139	9,208	9,208	12.5	**737**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	14,557	16,645	15,601	15,601	18.5	**843**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	62,713	67,834	65,274	65,274	10.8	**6,044**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	14,282	52,588	33,435	33,435	15.2	**2,200**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7	100%	60,860	79,163	70,012	70,012	7.5	**9,335**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8	100%	30,322	30,045	30,184	30,184	6.3	**4,791**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,878	2,156	2,017	2,017	20.8	**97**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	65,364	67,358	66,361	66,361	7.8	**8,508**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	33,469	34,155	33,812	33,812	5.2	**6,502**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	17,724	17,964	17,844	17,844	8.3	**2,150**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	10,624	9,340	9,982	9,982	8.4	**1,188**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	103,826	102,925	103,376	103,376	8.0	**12,922**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	26,850	27,053	26,952	26,952	5.5	**4,900**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	107,409	104,793	106,101	106,101	5.7	**18,614**	10%	1.14%	1,861	40%	4.58%	7,446	0%	0.00%	0
17	100%	23,810	25,804	24,807	24,807	3.8	**6,528**	0%	0.00%	0	0%	0.00%	0	10%	0.40%	653
18	100%	43,626	48,198	45,912	45,912	1.8	**25,507**	0%	0.00%	0	0%	0.00%	0	10%	1.57%	2,551
19	100%	65,561	65,783	65,672	65,672	3.5	**18,763**	35%	4.04%	6,567	35%	4.04%	6,567	0%	0.00%	0
20	100%	9,536	12,198	10,867	10,867	3.2	**3,396**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	4,225	72,808	38,517	38,517	4.8	**8,024**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22*	100%	3,874	4,214	4,044	4,044	6.0	**674**	0%	0.00%	0	78%	0.32%	526	9%	0.04%	61
23	100%	24,135	32,739	28,437	28,437	12.3	**2,312**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,815	3,209	3,012	3,012	12.2	**247**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	995	1,136	1,066	1,066	14.2	**75**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	86,303	132,754	109,529	109,529	18.3	**5,985**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	23,414	26,278	24,846	24,846	24.0	**1,035**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	20,001	24,230	22,116	22,116	23.2	**953**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,554	14,407	12,981	12,981	24.5	**530**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		987,961	1,278,868	1,133,415	1,133,415		**162,609**		5.18%	**8,429**		8.94%	**14,539**		2.01%	**3,264**
										5.18%			8.94%			2.01%

* - Subarea in which the site it located.

Trip Distribution Table

Sunport ACE Project (S. of Gibson btwn Columbia Dr & Hickman Ave)

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

								(CS) Carlisle Blvd South			(GS) Girard Blvd South			(IS) Interstate 25 South		
Sub Area I.D.#	**% Sub Area in Study**	**2015 Population**	**2025 Population**	**Interpolated Population for the Year**	Population in Study	Dist. (Mi.)	**Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2015	**2025**	2020												
1	100%	58,191	127,178	92,685	92,685	16.7	**5,550**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	51,766	65,774	58,770	58,770	14.0	**4,198**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	8,277	10,139	9,208	9,208	12.5	**737**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	14,557	16,645	15,601	15,601	18.5	**843**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	62,713	67,834	65,274	65,274	10.8	**6,044**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	14,282	52,588	33,435	33,435	15.2	**2,200**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7	100%	60,860	79,163	70,012	70,012	7.5	**9,335**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8	100%	30,322	30,045	30,184	30,184	6.3	**4,791**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,878	2,156	2,017	2,017	20.8	**97**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	65,364	67,358	66,361	66,361	7.8	**8,508**	0%	0.00%	0	0%	0.00%	0	75%	3.92%	6,381
11	100%	33,469	34,155	33,812	33,812	5.2	**6,502**	0%	0.00%	0	0%	0.00%	0	75%	3.00%	4,877
12	100%	17,724	17,964	17,844	17,844	8.3	**2,150**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	10,624	9,340	9,982	9,982	8.4	**1,188**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	103,826	102,925	103,376	103,376	8.0	**12,922**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	26,850	27,053	26,952	26,952	5.5	**4,900**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	107,409	104,793	106,101	106,101	5.7	**18,614**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	23,810	25,804	24,807	24,807	3.8	**6,528**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	43,626	48,198	45,912	45,912	1.8	**25,507**	0%	0.00%	0	5%	0.78%	1,275	0%	0.00%	0
19	100%	65,561	65,783	65,672	65,672	3.5	**18,763**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	9,536	12,198	10,867	10,867	3.2	**3,396**	0%	0.00%	0	0%	0.00%	0	75%	1.57%	2,547
21	100%	4,225	72,808	38,517	38,517	4.8	**8,024**	0%	0.00%	0	0%	0.00%	0	100%	4.93%	8,024
22*	100%	3,874	4,214	4,044	4,044	6.0	**674**	3%	0.01%	20	0%	0.00%	0	0%	0.00%	0
23	100%	24,135	32,739	28,437	28,437	12.3	**2,312**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,815	3,209	3,012	3,012	12.2	**247**	0%	0.00%	0	0%	0.00%	0	100%	0.15%	247
25	100%	995	1,136	1,066	1,066	14.2	**75**	0%	0.00%	0	0%	0.00%	0	100%	0.05%	75
26	100%	86,303	132,754	109,529	109,529	18.3	**5,985**	0%	0.00%	0	0%	0.00%	0	100%	3.68%	5,985
27	100%	23,414	26,278	24,846	24,846	24.0	**1,035**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	20,001	24,230	22,116	22,116	23.2	**953**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,554	14,407	12,981	12,981	24.5	**530**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		987,961	1,278,868	1,133,415	1,133,415		**162,609**		0.01%	**20**		0.78%	**1,275**		17.30%	**28,136**
										0.01%			0.78%			17.30%

* - Subarea in which the site it located.

Trip Distribution Table

Sunport ACE Project (S. of Gibson btwn Columbia Dr & Hickman Ave)

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments' 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

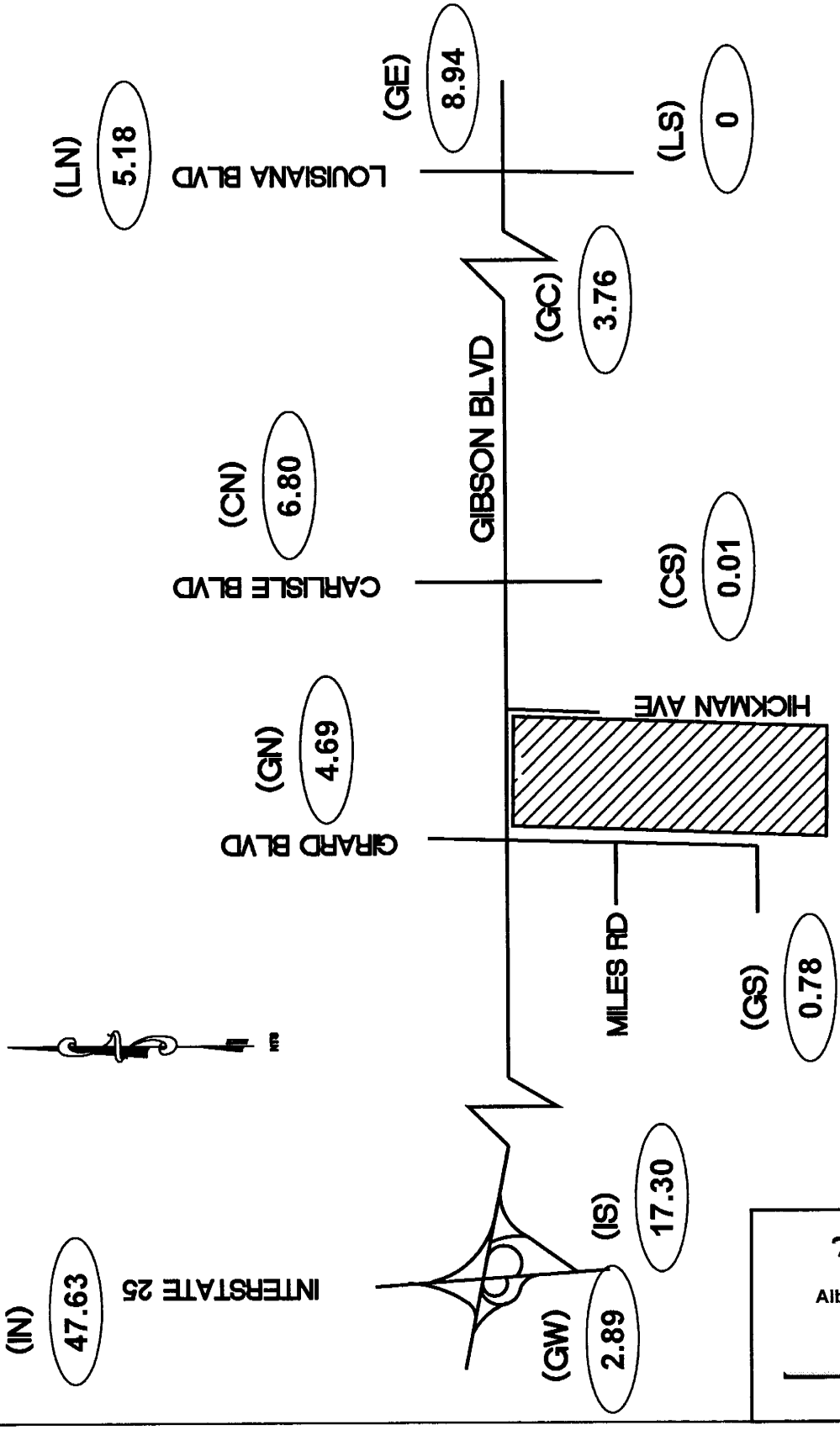
								(GW) Gibson Blvd West			(GC) Gibson Blvd Central			(LS) Louisiana Blvd South	
Sub Area I.D.#	**% Sub Area in Study**	**2015 Population**	**2025 Population**	**Interpolated Population for the Year**	Population in Study	Dist. (Mi.)	**Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	Population
		2015	**2025**	2020											
1	100%	58,191	127,178	92,685	92,685	16.7	**5,550**	0%	0.00%	0	0%	0.00%	0	0%	0
2	100%	51,766	65,774	58,770	58,770	14.0	**4,198**	0%	0.00%	0	0%	0.00%	0	0%	0
3	100%	8,277	10,139	9,208	9,208	12.5	**737**	0%	0.00%	0	0%	0.00%	0	0%	0
4	100%	14,557	16,645	15,601	15,601	18.5	**843**	0%	0.00%	0	0%	0.00%	0	0%	0
5	100%	62,713	67,834	65,274	65,274	10.8	**6,044**	0%	0.00%	0	0%	0.00%	0	0%	0
6	100%	14,282	52,588	33,435	33,435	15.2	**2,200**	0%	0.00%	0	0%	0.00%	0	0%	0
7	100%	60,860	79,163	70,012	70,012	7.5	**9,335**	0%	0.00%	0	0%	0.00%	0	0%	0
8	100%	30,322	30,045	30,184	30,184	6.3	**4,791**	0%	0.00%	0	0%	0.00%	0	0%	0
9	100%	1,878	2,156	2,017	2,017	20.8	**97**	0%	0.00%	0	0%	0.00%	0	0%	0
10	100%	65,364	67,358	66,361	66,361	7.8	**8,508**	0%	0.00%	0	0%	0.00%	0	0%	0
11	100%	33,469	34,155	33,812	33,812	5.2	**6,502**	0%	0.00%	0	0%	0.00%	0	0%	0
12	100%	17,724	17,964	17,844	17,844	8.3	**2,150**	0%	0.00%	0	0%	0.00%	0	0%	0
13	100%	10,624	9,340	9,982	9,982	8.4	**1,188**	0%	0.00%	0	0%	0.00%	0	0%	0
14	100%	103,826	102,925	103,376	103,376	8.0	**12,922**	0%	0.00%	0	0%	0.00%	0	0%	0
15	100%	26,850	27,053	26,952	26,952	5.5	**4,900**	0%	0.00%	0	0%	0.00%	0	0%	0
16	100%	107,409	104,793	106,101	106,101	5.7	**18,614**	0%	0.00%	0	0%	0.00%	0	0%	0
17	100%	23,810	25,804	24,807	24,807	3.8	**6,528**	20%	0.80%	1,306	0%	0.00%	0	0%	0
18	100%	43,626	48,198	45,912	45,912	1.8	**25,507**	10%	1.57%	2,551	20%	3.14%	5,101	0%	0
19	100%	65,561	65,783	65,672	65,672	3.5	**18,763**	0%	0.00%	0	5%	0.58%	938	0%	0
20	100%	9,536	12,198	10,867	10,867	3.2	**3,396**	25%	0.52%	849	0%	0.00%	0	0%	0
21	100%	4,225	72,808	38,517	38,517	4.8	**8,024**	0%	0.00%	0	0%	0.00%	0	0%	0
22*	100%	3,874	4,214	4,044	4,044	6.0	**674**	0%	0.00%	0	10%	0.04%	67	0%	0
23	100%	24,135	32,739	28,437	28,437	12.3	**2,312**	0%	0.00%	0	0%	0.00%	0	0%	0
24	100%	2,815	3,209	3,012	3,012	12.2	**247**	0%	0.00%	0	0%	0.00%	0	0%	0
25	100%	995	1,136	1,066	1,066	14.2	**75**	0%	0.00%	0	0%	0.00%	0	0%	0
26	100%	86,303	132,754	109,529	109,529	18.3	**5,985**	0%	0.00%	0	0%	0.00%	0	0%	0
27	100%	23,414	26,278	24,846	24,846	24.0	**1,035**	0%	0.00%	0	0%	0.00%	0	0%	0
28	100%	20,001	24,230	22,116	22,116	23.2	**953**	0%	0.00%	0	0%	0.00%	0	0%	0
29	100%	11,554	14,407	12,981	12,981	24.5	**530**	0%	0.00%	0	0%	0.00%	0	0%	0
		987,981	1,278,868	1,133,415	1,133,415		**162,609**		2.89%	**4,705**		3.76%	**6,107**		**0**
										2.89%			3.76%		0.00%

* - Subarea in which the site it located.

Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Distribution Map (%) - Office



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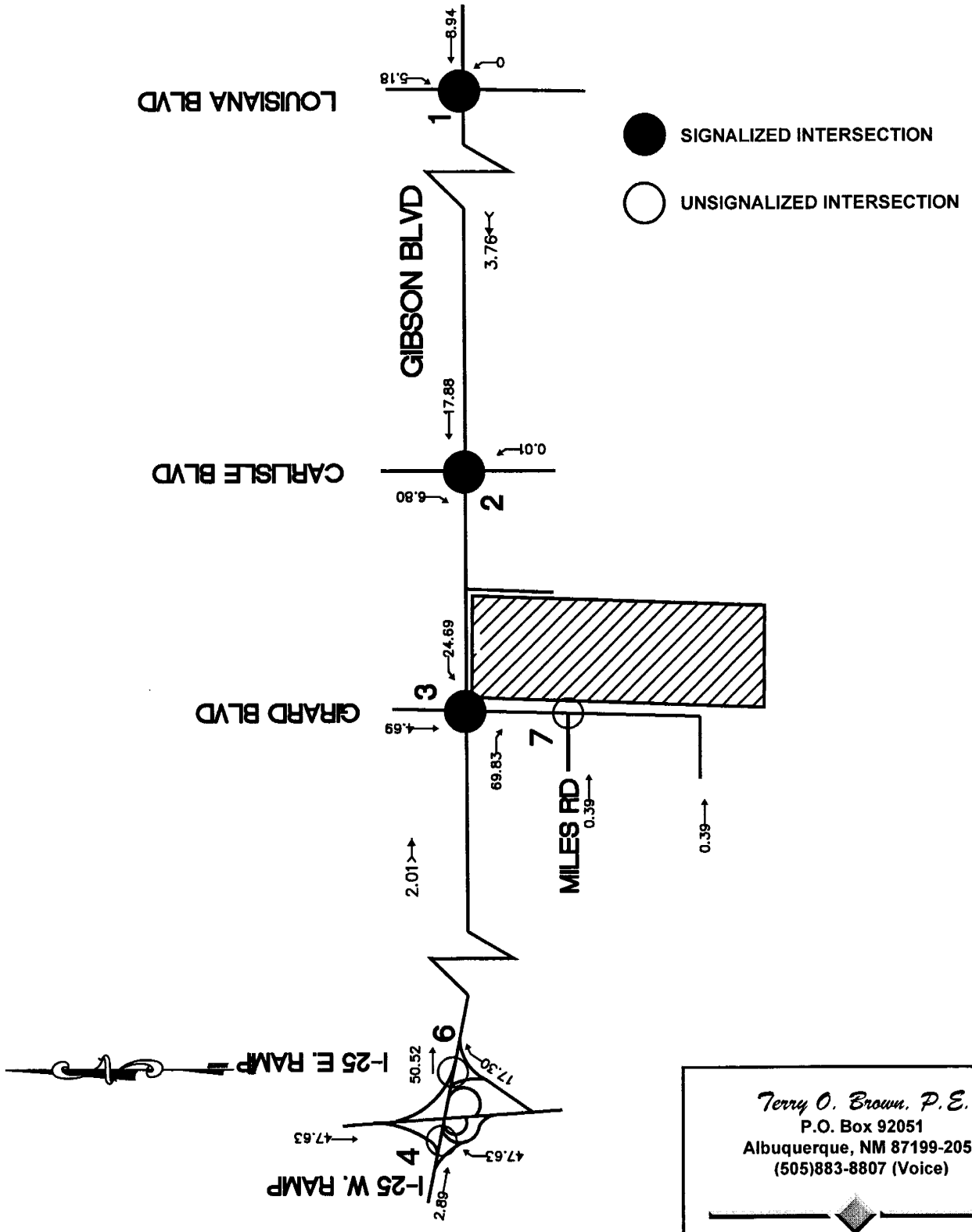
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Entering) - Office

Both Cases



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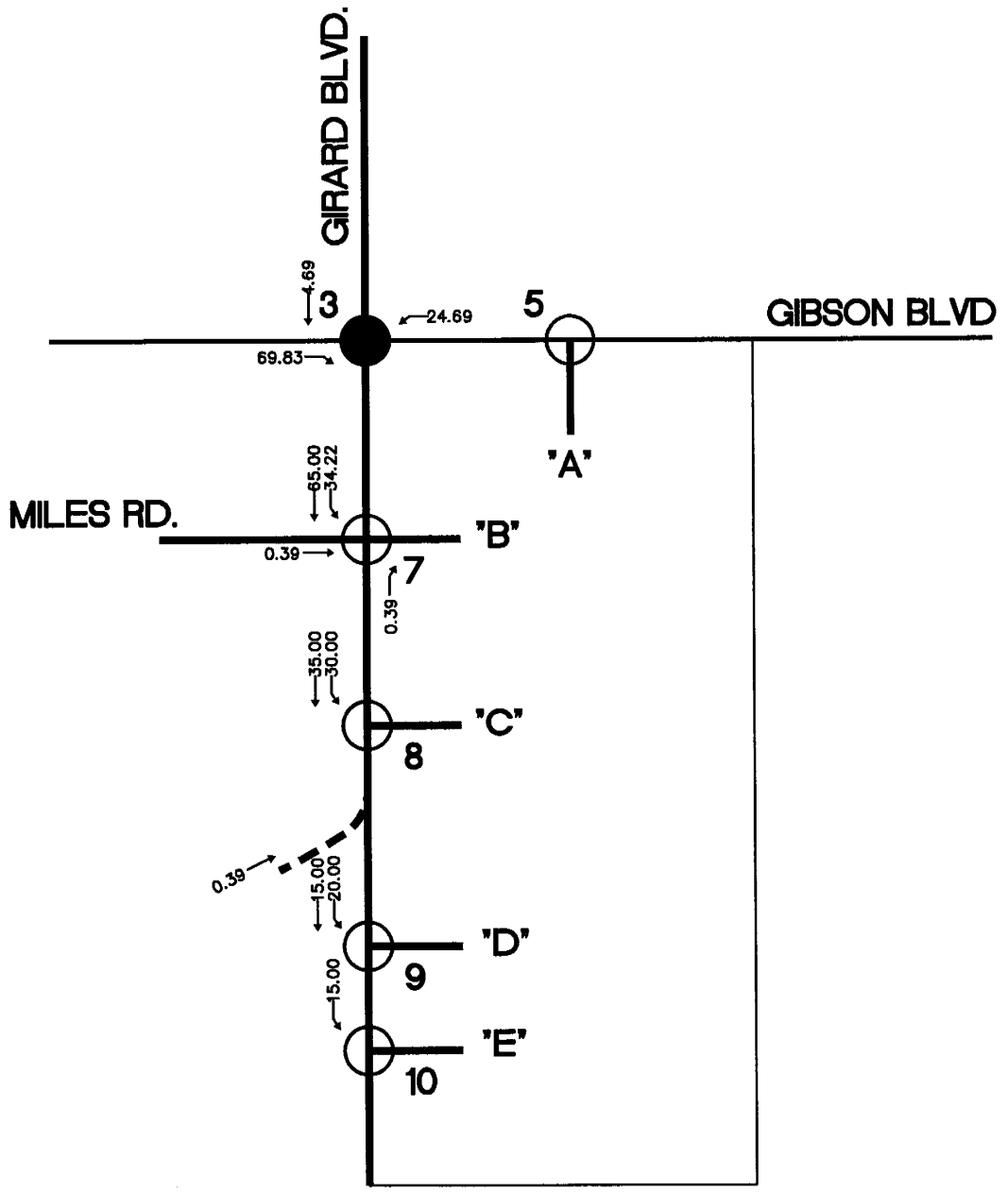
Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Entering) - Office

Driveways - Case Y



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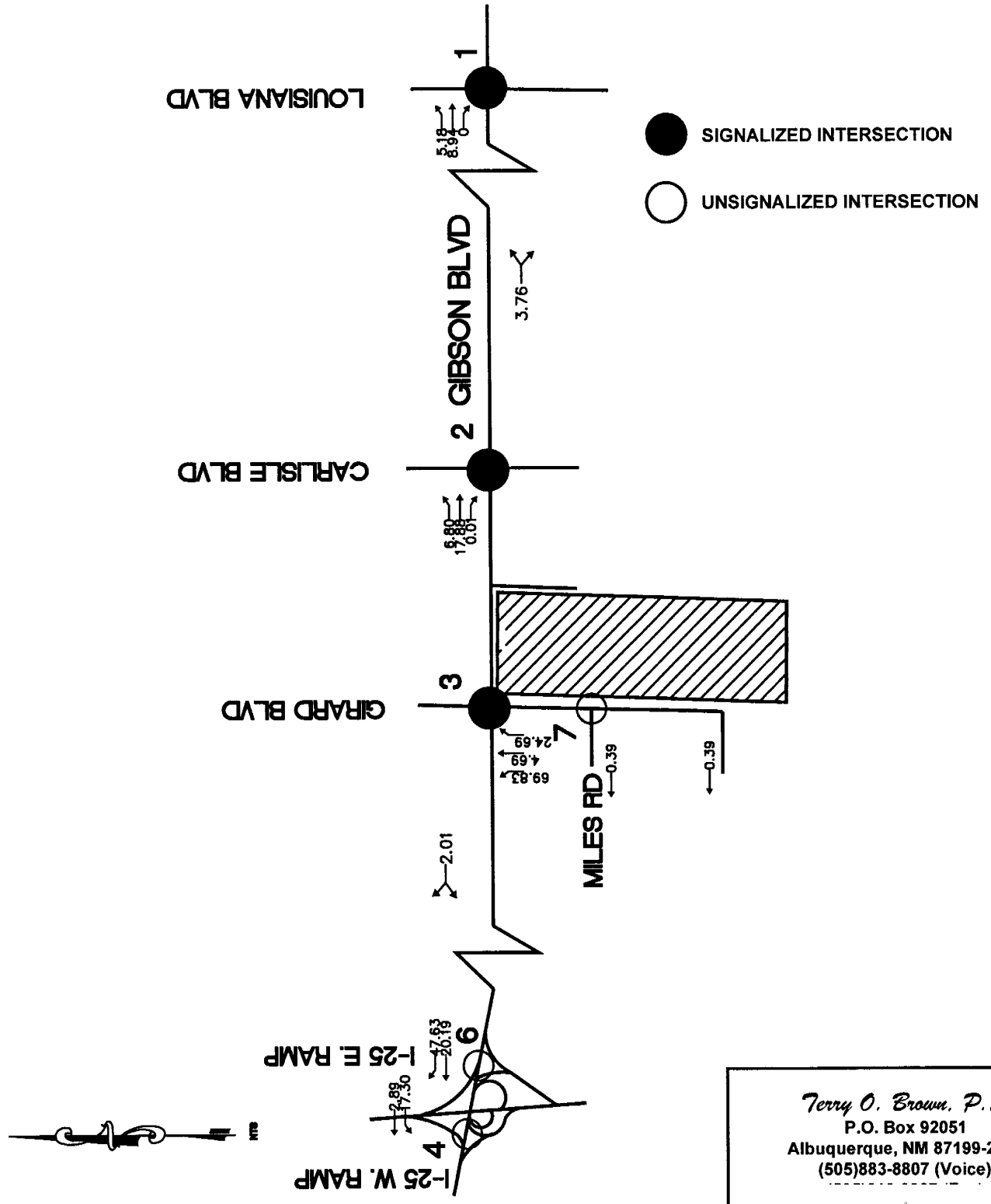
Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Exiting) - Office

Both Cases



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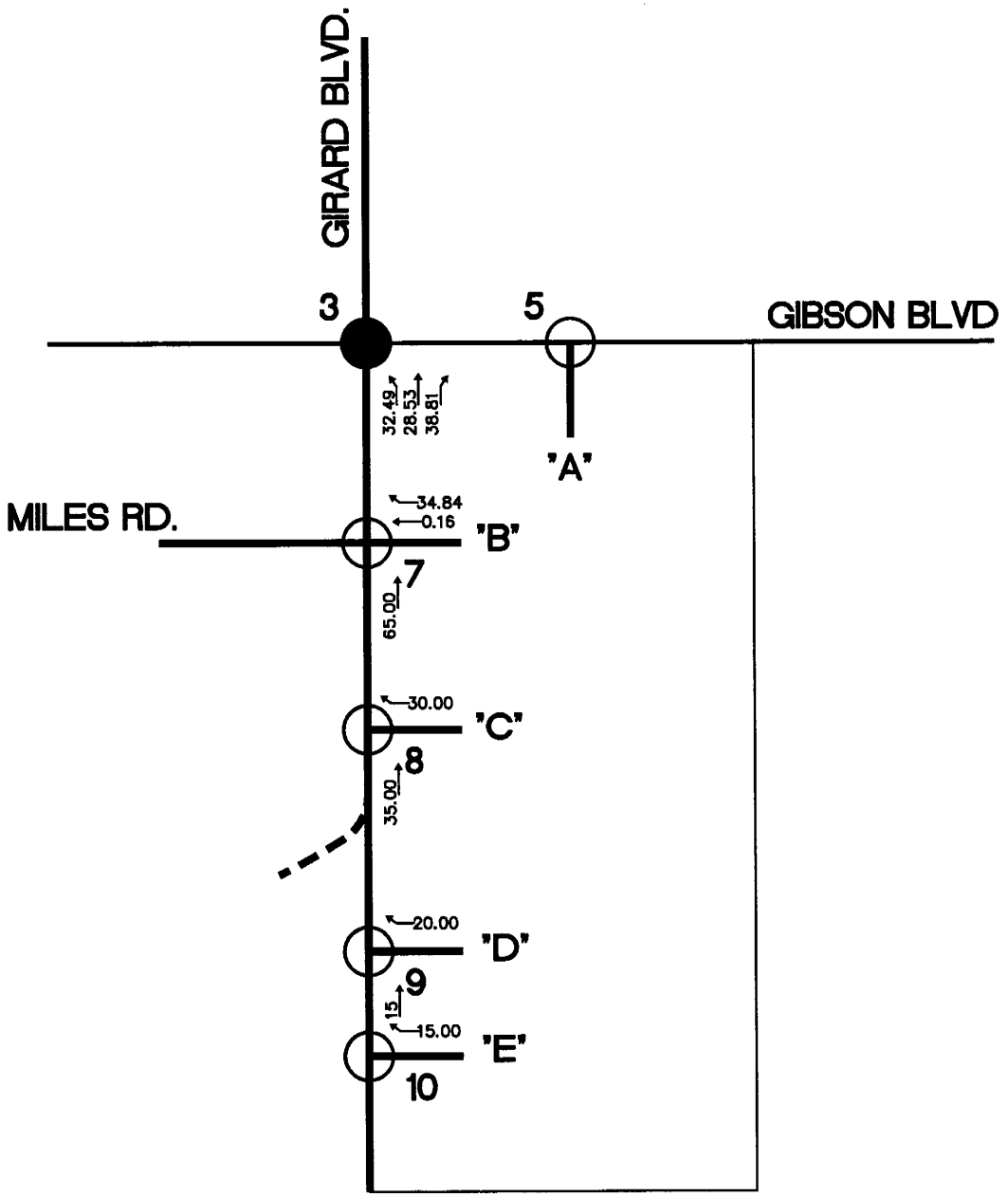
Sunport ACE Project

(S. of Gibson Blvd btwn Columbia Dr & Hickman Ave)

Trip Assignments (% Exiting) - Office

Driveways - Case Y



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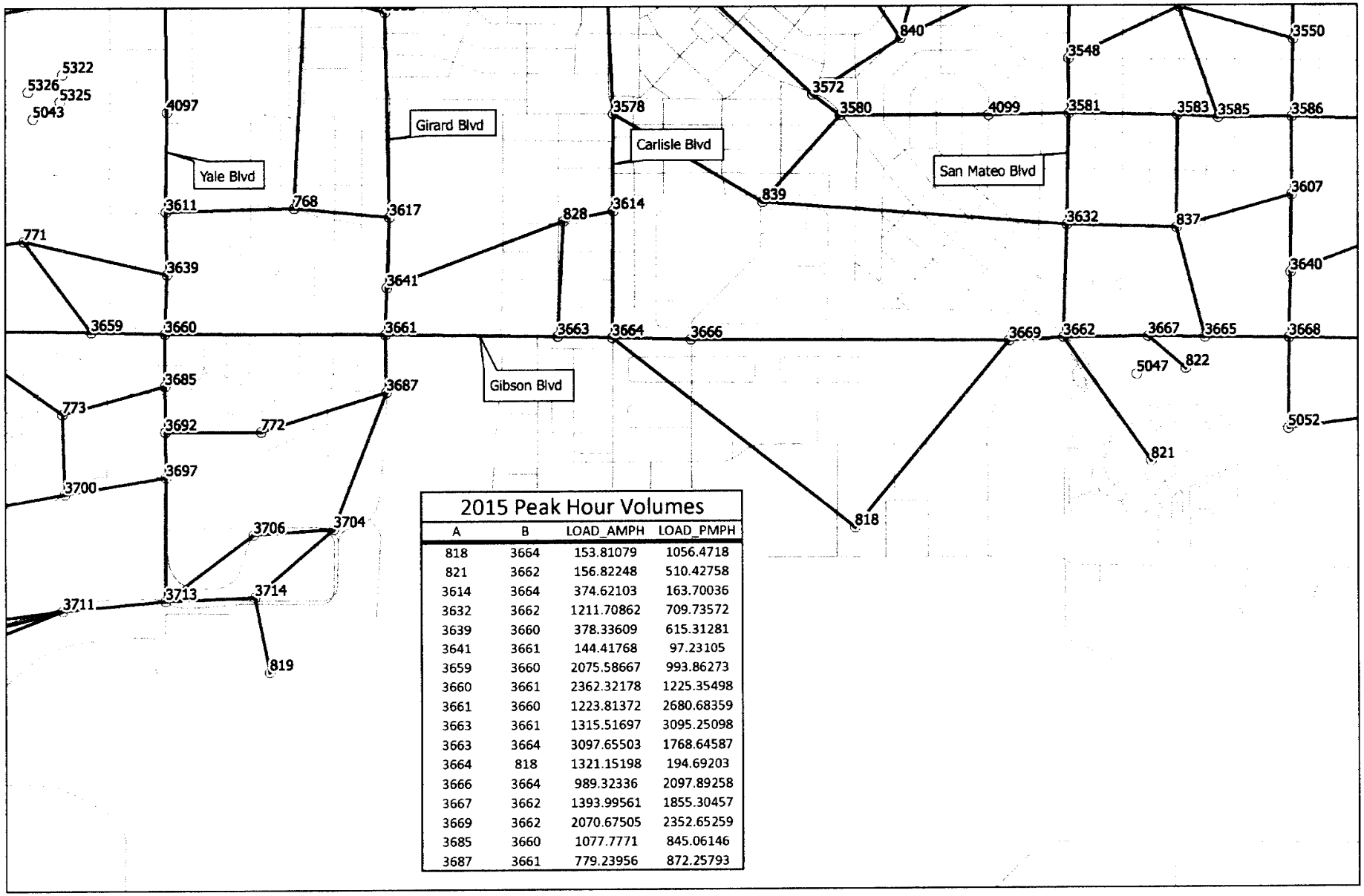
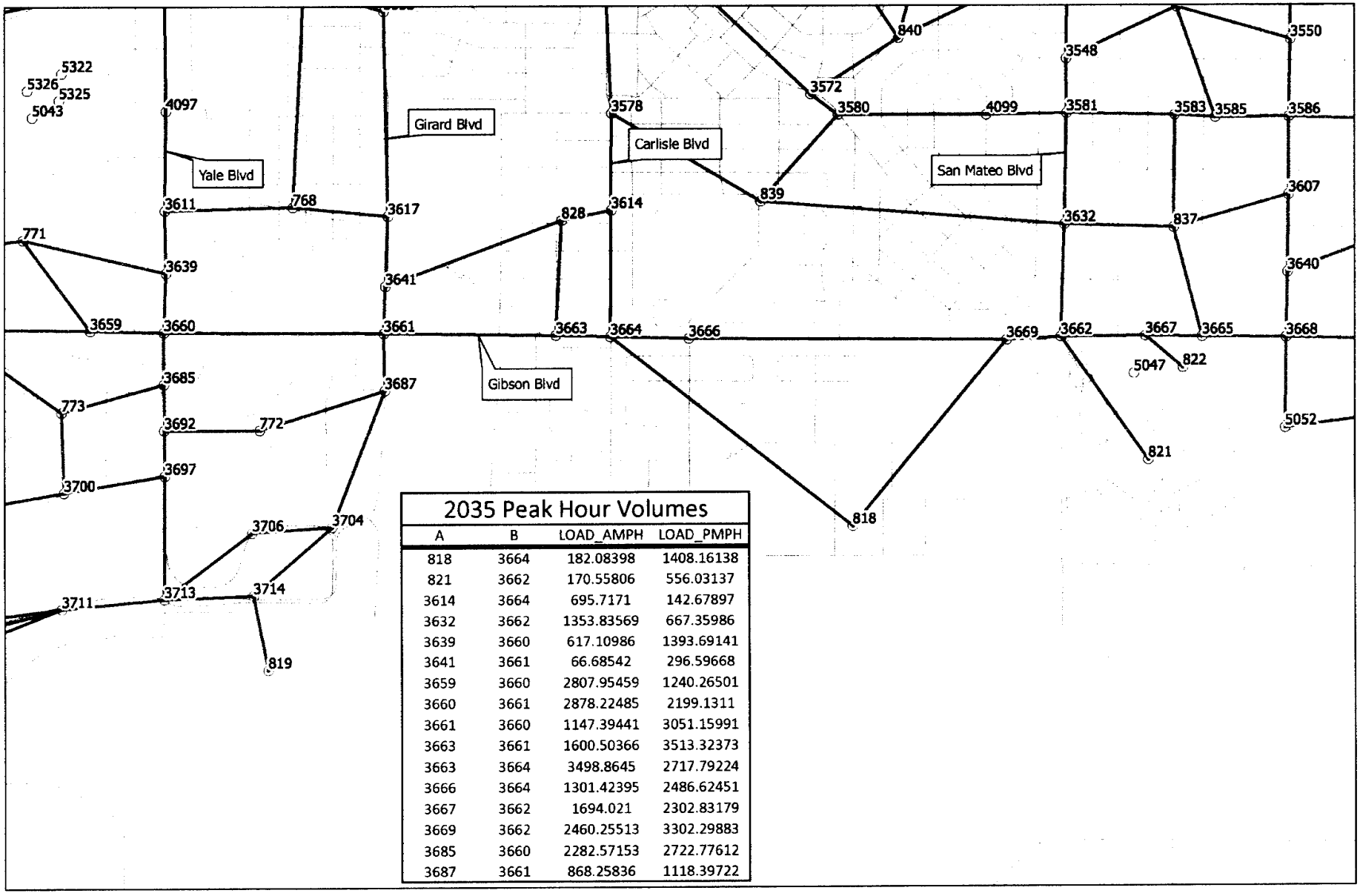


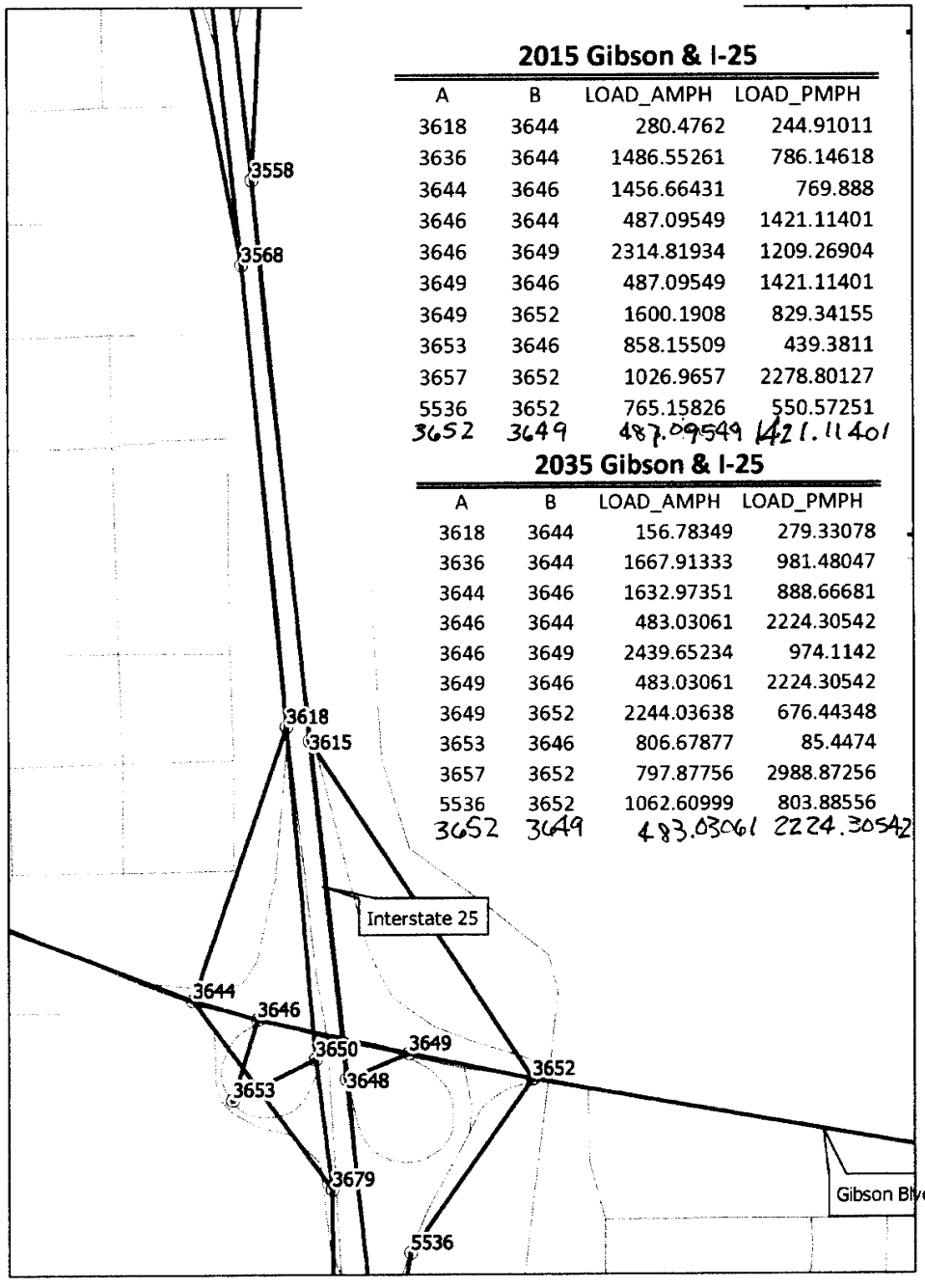
2015 Peak Hour Volumes

A	B	LOAD_AMPH	LOAD_PMPH
818	3664	153.81079	1056.4718
821	3662	156.82248	510.42758
3614	3664	374.62103	163.70036
3632	3662	1211.70862	709.73572
3639	3660	378.33609	615.31281
3641	3661	144.41768	97.23105
3659	3660	2075.58667	993.86273
3660	3661	2362.32178	1225.35498
3661	3660	1223.81372	2680.68359
3663	3661	1315.51697	3095.25098
3663	3664	3097.65503	1768.64587
3664	818	1321.15198	194.69203
3666	3664	989.32336	2097.89258
3667	3662	1393.99561	1855.30457
3669	3662	2070.67505	2352.65259
3685	3660	1077.7771	845.06146
3687	3661	779.23956	872.25793



2035 Peak Hour Volumes

A	B	LOAD_AMPH	LOAD_PMPH
818	3664	182.08398	1408.16138
821	3662	170.55806	556.03137
3614	3664	695.7171	142.67897
3632	3662	1353.83569	667.35986
3639	3660	617.10986	1393.69141
3641	3661	66.68542	296.59668
3659	3660	2807.95459	1240.26501
3660	3661	2878.22485	2199.1311
3661	3660	1147.39441	3051.15991
3663	3661	1600.50366	3513.32373
3663	3664	3498.8645	2717.79224
3666	3664	1301.42395	2486.62451
3667	3662	1694.021	2302.83179
3669	3662	2460.25513	3302.29883
3685	3660	2282.57153	2722.77612
3687	3661	868.25836	1118.39722

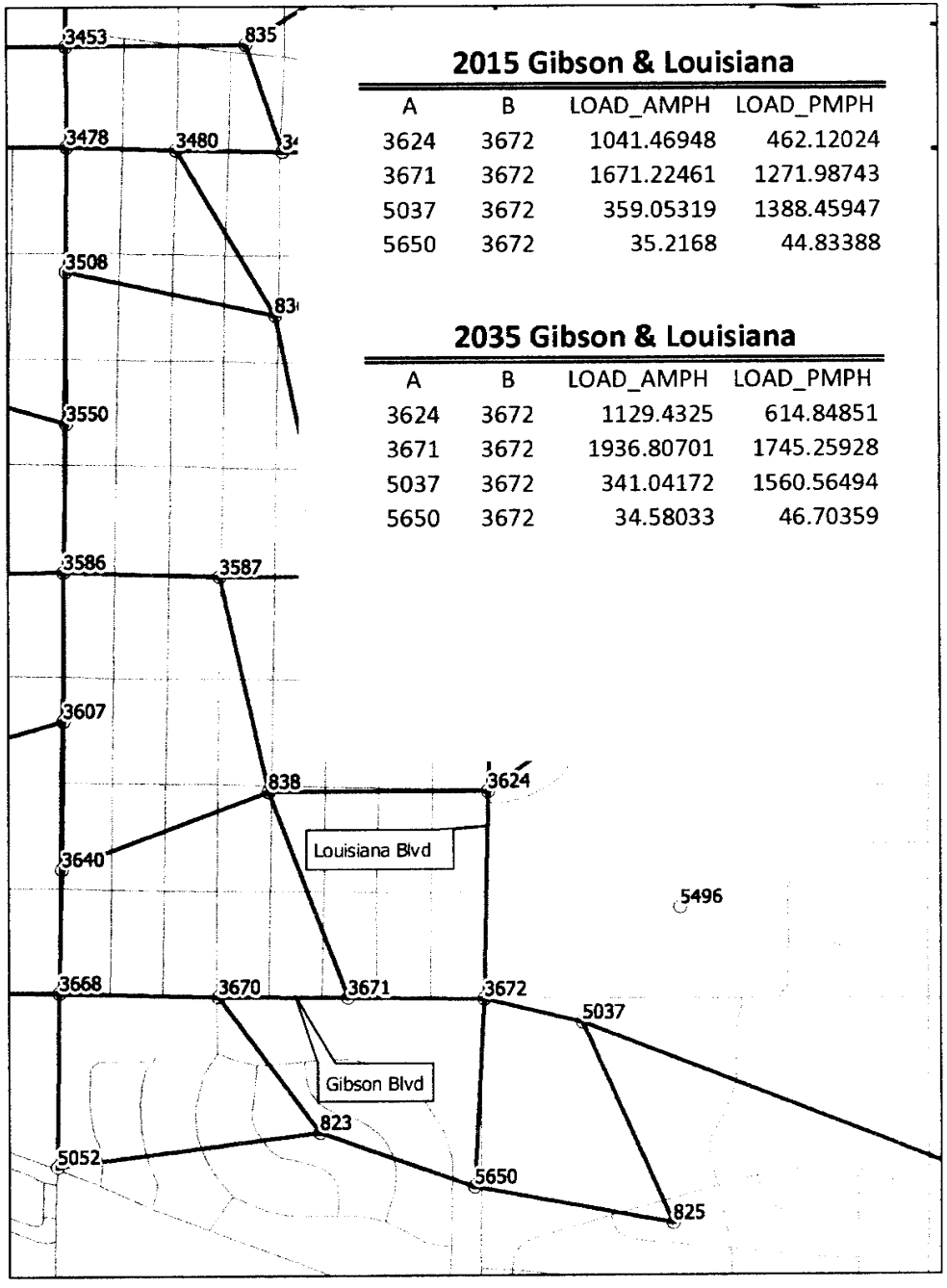


2015 Gibson & I-25

A	B	LOAD_AMPH	LOAD_PMPH
3618	3644	280.4762	244.91011
3636	3644	1486.55261	786.14618
3644	3646	1456.66431	769.888
3646	3644	487.09549	1421.11401
3646	3649	2314.81934	1209.26904
3649	3646	487.09549	1421.11401
3649	3652	1600.1908	829.34155
3653	3646	858.15509	439.3811
3657	3652	1026.9657	2278.80127
5536	3652	765.15826	550.57251
3652	3649	487.09549	1421.11401

2035 Gibson & I-25

A	B	LOAD_AMPH	LOAD_PMPH
3618	3644	156.78349	279.33078
3636	3644	1667.91333	981.48047
3644	3646	1632.97351	888.66681
3646	3644	483.03061	2224.30542
3646	3649	2439.65234	974.1142
3649	3646	483.03061	2224.30542
3649	3652	2244.03638	676.44348
3653	3646	806.67877	85.4474
3657	3652	797.87756	2988.87256
5536	3652	1062.60999	803.88556
3652	3649	483.03061	2224.30542



2015 Gibson & Louisiana

A	B	LOAD_AMPH	LOAD_PMPH
3624	3672	1041.46948	462.12024
3671	3672	1671.22461	1271.98743
5037	3672	359.05319	1388.45947
5650	3672	35.2168	44.83388

2035 Gibson & Louisiana

A	B	LOAD_AMPH	LOAD_PMPH
3624	3672	1129.4325	614.84851
3671	3672	1936.80701	1745.25928
5037	3672	341.04172	1560.56494
5650	3672	34.58033	46.70359

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2020) - 100% Development

Case "Y" - Drive on Gibson Blvd

INTERSECTION: **Summary**

Gibson Blvd / Louisiana Blvd

(1)

3.0% Truck	0.95			0.95			0.95			0.95			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	186	506	5	10	178	35	2	4	12	297	40	449	
2020 (NO BUILD - A.M.)	*280*	*763*	*8*	*12*	*205*	*40*	*3*	*5*	*15*	*334*	*45*	*505*	
2020 (BUILD - A.M.)	***287***	***775***	***8***	***12***	***257***	***40***	***3***	***5***	***15***	***334***	***45***	***535***	

	0.91			0.91			0.91			0.91			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	427	178	2	19	681	221	33	58	63	46	19	277	
2020 (NO BUILD - P.M.)	*656*	*273*	*3*	*22*	*816*	*265*	*35*	*61*	*66*	*56*	*23*	*340*	
2020 (BUILD - P.M.)	***684***	***320***	***3***	***22***	***832***	***265***	***35***	***61***	***66***	***56***	***23***	***349***	

Gibson Blvd / Carlisle Blvd

(2)

3.0% Truck	0.93			0.93			0.93			0.93			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	82	1,425	294	110	968	43	29	4	4	94	77	105	
2020 (NO BUILD - A.M.)	*104*	*1,809*	*373*	*115*	*1,013*	*45*	*62*	*8*	*8*	*135*	*110*	*150*	
2020 (BUILD - A.M.)	***163***	***1,874***	***374***	***115***	***1,164***	***45***	***63***	***8***	***8***	***135***	***110***	***248***	

	0.98			0.98			0.98			0.98			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	135	1,036	7	14	1,773	123	383	86	52	64	6	92	
2020 (NO BUILD - P.M.)	*186*	*1,423*	*10*	*15*	*1,926*	*133*	*569*	*128*	*78*	*67*	*6*	*97*	
2020 (BUILD - P.M.)	***324***	***1,601***	***13***	***15***	***2,040***	***133***	***572***	***128***	***78***	***67***	***6***	***211***	

Gibson Blvd / Girard Blvd

(3)

3.0% Truck	0.90			0.90			0.90			0.90			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	67	1,745	16	125	925	43	8	9	76	69	34	62	
2020 (NO BUILD - A.M.)	*78*	*2,031*	*19*	*141*	*1,048*	*49*	*11*	*12*	*97*	*73*	*36*	*65*	
2020 (BUILD - A.M.)	***78***	***2,079***	***466***	***284***	***1,048***	***49***	***183***	***85***	***155***	***112***	***103***	***65***	

	0.92			0.92			0.92			0.92			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	96	1,316	7	131	2,032	122	13	39	117	62	31	105	
2020 (NO BUILD - P.M.)	*111*	*1,523*	*8*	*152*	*2,344*	*141*	*16*	*50*	*150*	*71*	*35*	*120*	
2020 (BUILD - P.M.)	***111***	***1,608***	***203***	***195***	***2,344***	***141***	***544***	***213***	***329***	***139***	***113***	***120***	

Gibson Blvd / I-25 W. Ramp

(4)

3.0% Truck	0.94			0.94			0.94			0.94			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	1,095	30	208	346	0	0	0	1,979	0	0	256	
2020 (NO BUILD - A.M.)	*0*	*1,254*	*33*	*264*	*406*	*0*	*0*	*0*	*2,114*	*0*	*0*	*271*	
2020 (BUILD - A.M.)	***0***	***1,271***	***33***	***288***	***410***	***0***	***0***	***0***	***2,410***	***0***	***0***	***271***	

	0.98			0.98			0.98			0.98			PHF
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	765	29	498	922	0	0	0	737	0	0	205	
2020 (NO BUILD - P.M.)	*0*	*883*	*31*	*645*	*1,092*	*0*	*0*	*0*	*829*	*0*	*0*	*217*	
2020 (BUILD - P.M.)	***0***	***888***	***31***	***738***	***1,107***	***0***	***0***	***0***	***946***	***0***	***0***	***217***	

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2020) - 100% Development

Case "Y" - Drive on Gibson Blvd

INTERSECTION: **Summary**

Gibson Blvd / Driveway "A"

(5)

3.0% Truck	0.92 PHF											
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - A.M.)	0	2,201	0	0	1,238	0	0	0	0	0	0	0
2020 (BUILD - A.M.)	**0**	**2,259**	**87**	**107**	**1,381**	**0**	**0**	**0**	**68**	**0**	**0**	**0**

	0.96 PHF											
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - P.M.)	0	1,744	0	0	2,637	0	0	0	0	0	0	0
2020 (BUILD - P.M.)	**0**	**1,923**	**152**	**188**	**2,680**	**0**	**0**	**0**	**139**	**0**	**0**	**0**

Gibson Blvd / I-25 E. Ramp

(6)

3.0% Truck	0.94 PHF											
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	2,757	288	0	534	626	21	0	437	0	0	0
2020 (NO BUILD - A.M.)	0	2,857	297	0	600	695	29	0	620	0	0	0
2020 (BUILD - A.M.)	**0**	**2,876**	**297**	**0**	**921**	**777**	**29**	**0**	**722**	**0**	**0**	**0**

	0.98 PHF											
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	1,251	247	0	1,401	1,203	13	0	331	0	0	0
2020 (NO BUILD - P.M.)	0	1,362	255	0	1,558	1,354	18	0	528	0	0	0
2020 (BUILD - P.M.)	**0**	**1,396**	**255**	**0**	**1,754**	**1,641**	**18**	**0**	**559**	**0**	**0**	**0**

Miles Rd / Girard Blvd

(7)

3.0% Truck	0.85 PHF											
	Eastbound (Miles Rd)			Westbound (Miles Rd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - A.M.)	60	0	0	0	0	0	0	60	0	0	95	100
2020 (BUILD - A.M.)	**60**	**2**	**0**	**0**	**22**	**215**	**0**	**148**	**2**	**280**	**473**	**100**

	0.85 PHF											
	Eastbound (Miles Rd)			Westbound (Miles Rd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - P.M.)	108	5	5	0	0	0	5	108	5	0	190	5
2020 (BUILD - P.M.)	**108**	**6**	**5**	**0**	**85**	**528**	**5**	**453**	**6**	**203**	**303**	**5**

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2020) - 100% Development

Case "Y" - Drive on Gibson Blvd

INTERSECTION: **Summary**

Driveway "C" / Girard Blvd.

(8)

3.0% Truck

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - A.M.)	0	0	0	0	0	0	0	120	0	0	196	0	
2020 (BUILD - A.M.)	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**168**	**0**	**174**	**399**	**0**	

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - P.M.)	0	0	0	0	0	0	0	66	0	0	195	0	
2020 (BUILD - P.M.)	**0**	**0**	**0**	**0**	**0**	**159**	**0**	**252**	**0**	**52**	**256**	**0**	

Driveway "D" / Girard Blvd.

(9)

3.0% Truck

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - A.M.)	0	0	0	0	0	0	0	60	0	0	60	0	
2020 (BUILD - A.M.)	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**80**	**0**	**116**	**147**	**0**	

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "D")			Westbound (Driveway "D")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - P.M.)	0	0	0	0	0	0	0	60	0	0	60	0	
2020 (BUILD - P.M.)	**0**	**0**	**0**	**0**	**0**	**106**	**0**	**140**	**0**	**35**	**86**	**0**	

Driveway "E" / Girard Blvd.

(10)

3.0% Truck

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - A.M.)	0	0	0	0	0	0	0	60	0	0	60	0	
2020 (BUILD - A.M.)	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**60**	**0**	**87**	**60**	**0**	

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2014)	0	0	0	0	0	0	0	0	0	0	0	0	0
2020 (NO BUILD - P.M.)	0	0	0	0	0	0	0	60	0	0	60	0	
2020 (BUILD - P.M.)	**0**	**0**	**0**	**0**	**0**	**80**	**0**	**60**	**0**	**26**	**60**	**0**	

Sunport ACE Project (South of Gibson Blvd between Columbia Dr & Hickam Ave)

Projected Turning Movements Worksheet

Gibson Blvd / Louisiana Blvd

INTERSECTION: E-W Street: **Gibson Blvd** (1) NOTE: This intersection is beyond the 2 mile commercial
N-S Street: **Louisiana Blvd** radius and therefore there is no commercial traffic

Year of Existing Counts 2013
Implementation Year **2020**

Growth Rates	9.25%			2.56%			4.81%			2.13%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	170	463	5	10	174	34	2	4	11	291	39	440
Background Traffic Growth	110	300	3	2	31	6	1	1	4	43	6	65
Subtotal (NO BUILD - A.M.)	***280***	***763***	***8***	***12***	***205***	***40***	***3***	***5***	***15***	***334***	***45***	***505***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.94%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.18%***
Percent Office Trips Generated(Exiting)	***5.18%***	***8.94%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	7	12	0	0	52	0	0	0	0	0	0	30
Total AM Peak Hour BUILD Volumes	**287**	**775**	**8**	**12**	**257**	**40**	**3**	**5**	**15**	**334**	**45**	**535**

	9.81%			3.43%			1.00%			3.98%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	389	162	2	18	658	214	33	57	62	44	18	266
Background Traffic Growth	267	111	1	4	158	51	2	4	4	12	5	74
Subtotal (NO BUILD - P.M.)	***656***	***273***	***3***	***22***	***816***	***265***	***35***	***61***	***66***	***56***	***23***	***340***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.94%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.18%***
Percent Office Trips Generated(Exiting)	***5.18%***	***8.94%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	28	47	0	0	16	0	0	0	0	0	0	9
Total PM Peak Hour BUILD Volumes	**684**	**320**	**3**	**22**	**832**	**265**	**35**	**61**	**66**	**56**	**23**	**349**

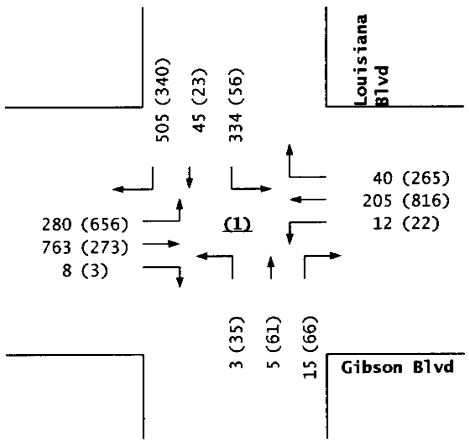
	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
2014 AM Peak Hr. Volumes	186	506	5	10	178	35	2	4	12	297	40	449
2014 PM Peak Hr. Volumes	427	178	2	19	681	221	33	58	63	46	19	277

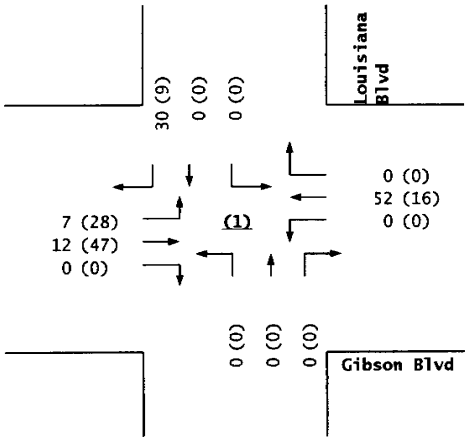
MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	638	218	17	770
2013 PM Link Volume	553	890	152	328
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**1672**	**359**	**36**	**1042**
2015 PM Link Volume	**1272**	**1389**	**45**	**463**
2035 AM Link Volume	1937	341	35	1130
2035 PM Link Volume	1746	1561	47	615
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**9.25%**	**2.56%**	**4.81%**	**2.13%**
2013-2035 PM Growth Rates	**9.81%**	**3.43%**	**-3.14%**	**3.98%**
Growth Rate to Apply to 2015 Model Volumes to Match 2035 Forecasts				
2015-2035 AM Growth Rates	0.79%	-0.25%	-0.14%	0.42%
2015-2035 PM Growth Rates	1.86%	0.62%	0.22%	1.64%

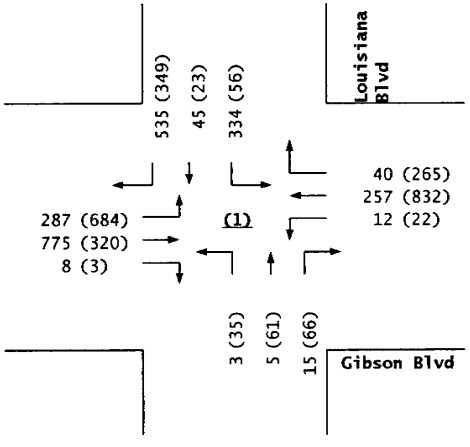
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / Louisiana Blvd

Sunport ACE Project (South of Gibson Blvd between Columbia Dr & Hickam Ave)

Projected Turning Movements Worksheet

Gibson Blvd / Carlisle Blvd

INTERSECTION: E-W Street: **Gibson Blvd** (2)

N-S Street: **Carlisle Blvd**

Year of Existing Counts 2013

Implementation Year **2020**

Growth Rates	4.70%			0.77%			23.98%			7.86%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	78	1,361	281	109	961	43	23	3	3	87	71	97
Background Traffic Growth	26	448	92	6	52	2	39	5	5	48	39	53
Subtotal (NO BUILD - A.M.)	***104***	***1,809***	***373***	***115***	***1,013***	***45***	***62***	***8***	***8***	***135***	***110***	***150***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.17%*	*0.00%*	*0.54%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.10%*
Percent Commercial Trips Generated(Exiting)	*21.10%*	*17.17%*	*0.54%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.88%*	*0.00%*	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.80%*
Percent Office Trips Generated(Exiting)	*6.80%*	*17.88%*	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	59	65	1	0	151	0	1	0	0	0	0	98
Total AM Peak Hour BUILD Volumes	**163**	**1,874**	**374**	**115**	**1,164**	**45**	**63**	**8**	**8**	**135**	**110**	**248**

	6.63%			1.46%			8.83%			1.00%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	127	972	7	14	1,747	121	352	79	48	63	6	91
Background Traffic Growth	59	451	3	1	179	12	217	49	30	4	0	6
Subtotal (NO BUILD - P.M.)	***186***	***1,423***	***10***	***15***	***1,926***	***133***	***569***	***128***	***78***	***67***	***6***	***97***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.17%*	*0.00%*	*0.54%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.10%*
Percent Commercial Trips Generated(Exiting)	*21.10%*	*17.17%*	*0.54%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.88%*	*0.00%*	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.80%*
Percent Office Trips Generated(Exiting)	*6.80%*	*17.88%*	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	138	178	3	0	114	0	3	0	0	0	0	114
Total PM Peak Hour BUILD Volumes	**324**	**1,601**	**13**	**15**	**2,040**	**133**	**572**	**128**	**78**	**67**	**6**	**211**

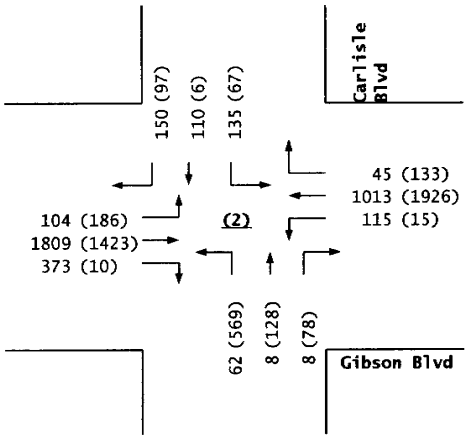
	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)		
2014 AM Peak Hr. Volumes	82	1425	294	110	968	43	29	4	4	94	77	105
2014 PM Peak Hr. Volumes	135	1,036	7	14	1,773	123	383	86	52	64	6	92

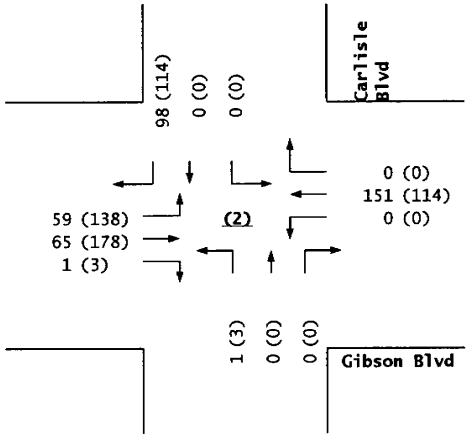
MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	**1,720**	**1,113**	**29**	**255**
2013 PM Link Volume	**1,106**	**1,882**	**479**	**160**
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**3098**	**990**	**154**	**375**
2015 PM Link Volume	**1769**	**2098**	**1057**	**164**
2035 AM Link Volume	3499	1302	182	696
2035 PM Link Volume	2718	2487	1409	143
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**4.70%**	**0.77%**	**23.98%**	**7.86%**
2013-2035 PM Growth Rates	**6.63%**	**1.46%**	**8.83%**	**-0.48%**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	0.65%	1.58%	0.91%	4.28%
2015-2035 PM Growth Rates	2.68%	0.93%	1.67%	-0.64%

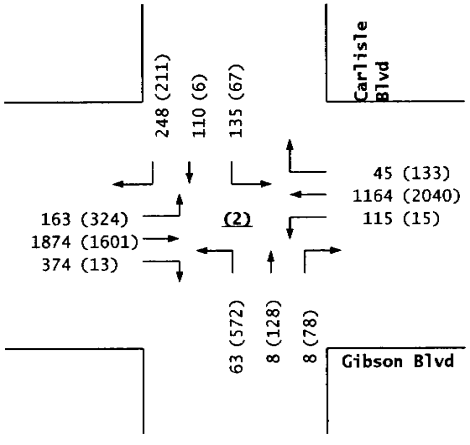
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / Carlisle Blvd

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Gibson Blvd / Girard Blvd

INTERSECTION: E-W Street: **Gibson Blvd** (3)

N-S Street: **Girard Blvd**

Year of Existing Counts 2013

Implementation Year **2020**

Growth Rates

	2.81%			2.27%			5.00%			1.00%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	65	1,697	16	122	904	42	8	9	72	68	34	61
Background Traffic Growth	13	334	3	19	144	7	3	3	25	5	2	4
Subtotal (NO BUILD - A.M.)	***78***	***2,031***	***19***	***141***	***1,048***	***49***	***11***	***12***	***97***	***73***	***36***	***65***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.49%*	*15.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*14.00%*	*14.53%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*32.49%*	*28.53%*	*10.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*69.83%*	*24.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.69%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*69.83%*	*4.69%*	*24.69%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	48	447	143	0	0	172	73	58	39	67	0
Total AM Peak Hour BUILD Volumes	**78**	**2,079**	**466**	**284**	**1,048**	**49**	**183**	**85**	**155**	**112**	**103**	**65**

	2.69%			2.63%			5.00%			2.41%		
	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	93	1,282	7	128	1,980	119	12	37	111	61	30	103
Background Traffic Growth	18	241	1	24	364	22	4	13	39	10	5	17
Subtotal (NO BUILD - P.M.)	***111***	***1,523***	***8***	***152***	***2,344***	***141***	***16***	***50***	***150***	***71***	***35***	***120***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.49%*	*15.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*14.00%*	*14.53%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*32.49%*	*28.53%*	*10.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*69.83%*	*24.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.69%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*69.83%*	*4.69%*	*24.69%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	85	195	43	0	0	528	163	179	68	78	0
Total PM Peak Hour BUILD Volumes	**111**	**1,608**	**203**	**195**	**2,344**	**141**	**544**	**213**	**329**	**139**	**113**	**120**

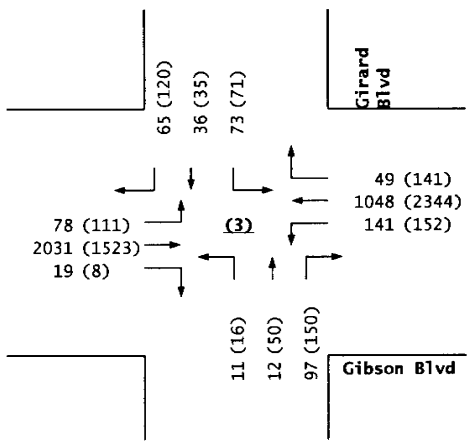
	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
2014 AM Peak Hr. Volumes	67	1745	16	125	925	43	8	9	76	69	34	62
2014 PM Peak Hr. Volumes	96	1,316	7	131	2,032	122	13	39	117	62	31	105

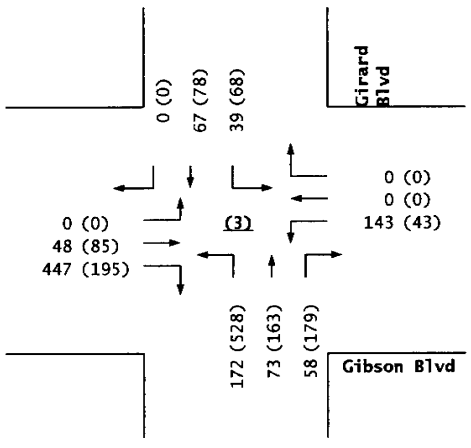
MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	1,778	1,068	89	163
2013 PM Link Volume	1,382	2,227	160	194
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**2363**	**1316**	**780**	**145**
2015 PM Link Volume	**1226**	**3096**	**873**	**98**
2035 AM Link Volume	2879	1601	869	67
2035 PM Link Volume	2200	3514	1119	297
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**2.81%**	**2.27%**	**39.84%**	**-2.68%**
2013-2035 PM Growth Rates	**2.69%**	**2.63%**	**27.24%**	**2.41%**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	1.09%	1.08%	0.57%	-2.69%
2015-2035 PM Growth Rates	3.97%	0.68%	1.41%	10.15%

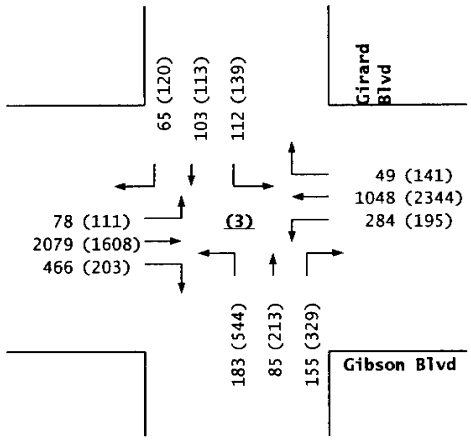
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / Girard Blvd

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Gibson Blvd / I-25 W. Ramp

INTERSECTION: E-W Street: **Gibson Blvd** (4)

N-S Street: **I-25 W. Ramp**

Year of Existing Counts 2013

Implementation Year **2020**

Growth Rates	**2.20%**			**0.50%**			**1.00%**			**1.00%**		
	Eastbound (Gibson Blvd)			**Westbound (Gibson Blvd)**			**Northbound (I-25 W. Ramp)**			**Southbound (I-25 W. Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,071	29	207	344	0	0	0	1,959	0	0	253
Background Traffic Growth	0	165	4	7	12	0	0	0	137	0	0	18
Subtotal	0	1,236	33	214	356	0	0	0	2,096	0	0	271
UNM Gibson CD - Community Retail	0	18	0	13	13	0	0	0	18	0	0	0
UNM Gibson CD - Fast Food / Market	0	0	0	37	37	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***1,254***	***33***	***264***	***406***	***0***	***0***	***0***	***2,114***	***0***	***0***	***271***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*2.89%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*47.63%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*17.30%*	*2.89%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	17	0	24	4	0	0	0	296	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**1,271**	**33**	**288**	**410**	**0**	**0**	**0**	**2,410**	**0**	**0**	**271**

	1.00%			**1.00%**			**0.43%**			**1.00%**		
	Eastbound (Gibson Blvd)			**Westbound (Gibson Blvd)**			**Northbound (I-25 W. Ramp)**			**Southbound (I-25 W. Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	757	29	493	913	0	0	0	734	0	0	203
Background Traffic Growth	0	53	2	35	64	0	0	0	22	0	0	14
Subtotal	0	810	31	528	977	0	0	0	756	0	0	217
UNM Gibson CD - Community Retail	0	40	0	42	41	0	0	0	40	0	0	0
UNM Gibson CD - Fast Food / Market	0	0	0	37	36	0	0	0	0	0	0	0
UNM Gibson CD - Destination Retail	0	33	0	38	38	0	0	0	33	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***883***	***31***	***645***	***1,092***	***0***	***0***	***0***	***829***	***0***	***0***	***217***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*2.89%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*47.63%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*17.30%*	*2.89%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	5	0	93	15	0	0	0	117	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**888**	**31**	**738**	**1,107**	**0**	**0**	**0**	**946**	**0**	**0**	**217**

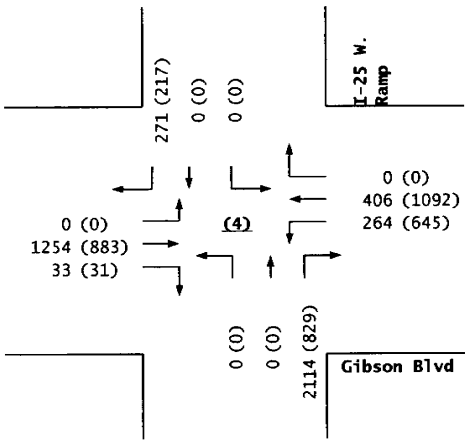
	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Gibson Blvd)			**Westbound (Gibson Blvd)**			**Northbound (I-25 W. Ramp)**			**Southbound (I-25 W. Ramp)**		
2014 AM Peak Hr. Volumes	0	1095	30	208	346	0	0	0	1,979	0	0	256
2014 PM Peak Hr. Volumes	0	765	29	498	922	0	0	0	737	0	0	205

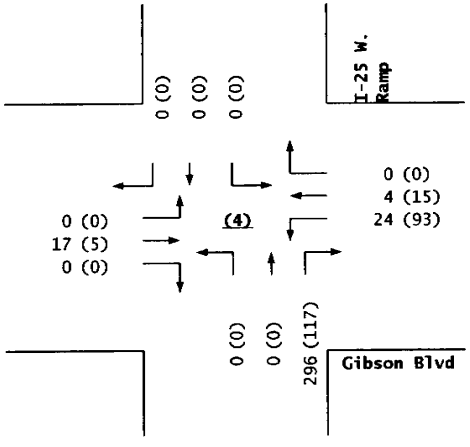
MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	1,100	551	1,959	253
2013 PM Link Volume	786	1,406	734	203
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**1457**	**487**	**766**	**281**
2015 PM Link Volume	**770**	**1422**	**551**	**245**
2035 AM Link Volume	1633	483	1063	157
2035 PM Link Volume	889	2225	804	280
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**2.20%**	**-0.56%**	**-2.08%**	**-1.72%**
2013-2035 PM Growth Rates	**0.60%**	**2.65%**	**0.43%**	**1.72%**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	0.60%	-0.04%	1.94%	-2.21%
2015-2035 PM Growth Rates	0.77%	2.82%	2.30%	0.71%

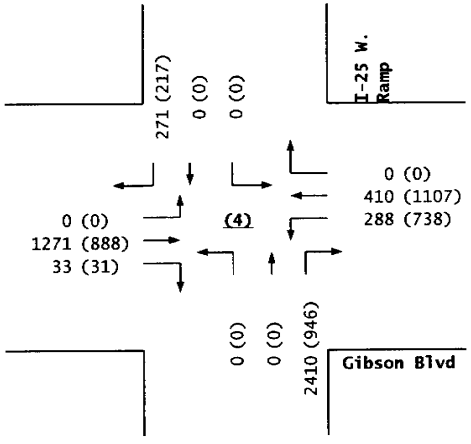
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / I-25 W. Ramp

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Gibson Blvd / Driveway "A"

INTERSECTION: E-W Street: **Gibson Blvd** (5)

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

Year of Existing Counts 2013

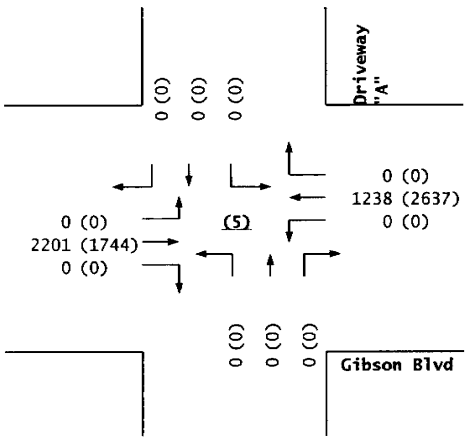
Implementation Year **2020**

	Growth Rates	2.27%			2.27%			2.27%			2.27%		
		Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes													
Background Traffic Growth													
Subtotal (NO BUILD - A.M.)		***0***	***2,201***	***0***	***0***	***1,238***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	***31.49%***	***38.81%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	***10.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***28.81%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	***24.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	***24.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	58	87	107	143	0	0	0	68	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**2,259**	**87**	**107**	**1,381**	**0**	**0**	**0**	**68**	**0**	**0**	**0**

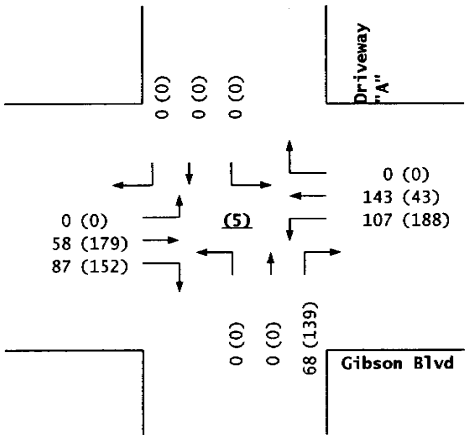
		2.63%			2.63%			2.63%			2.63%		
		Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Driveway "A")			Southbound (Driveway "A")		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes													
Background Traffic Growth													
Subtotal (NO BUILD - P.M.)		***0***	***1,744***	***0***	***0***	***2,637***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	***31.49%***	***38.81%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	***10.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***28.81%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	***24.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	***24.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	179	152	188	43	0	0	0	139	0	0	0
Total PM Peak Hour BUILD Volumes		**0**	**1,923**	**152**	**188**	**2,680**	**0**	**0**	**0**	**139**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

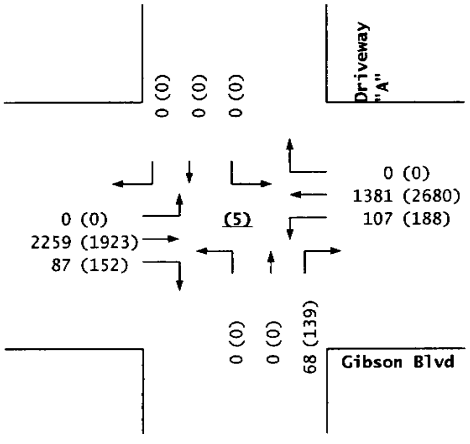
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / Driveway "A"

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Gibson Blvd / I-25 E. Ramp

INTERSECTION: E-W Street: **Gibson Blvd** (6)

N-S Street: **I-25 E. Ramp**

Year of Existing Counts 2013

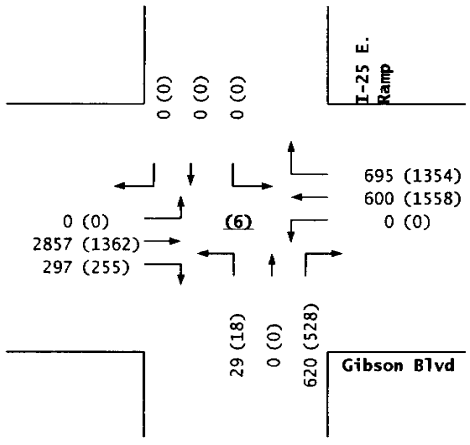
Implementation Year **2020**

Growth Rates	0.50%			0.50%			6.69%			1.00%		
	Eastbound (Gibson Blvd)			**Westbound (Gibson Blvd)**			**Northbound (I-25 E. Ramp)**			**Southbound (I-25 E. Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	2,743	287	0	531	623	20	0	410	0	0	0
Background Traffic Growth	0	96	10	0	19	22	9	0	192	0	0	0
Subtotal	0	2,839	297	0	550	645	29	0	602	0	0	0
UNM Gibson CD - Community Retail	0	18	0	0	13	13	0	0	18	0	0	0
UNM Gibson CD - Fast Food / Market	0	0	0	0	37	37	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,857***	***297***	***0***	***600***	***695***	***29***	***0***	***620***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	***7.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.20%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.20%***	***7.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***50.52%***	*0.00%*	*0.00%*	*0.00%*	***17.30%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.19%***	***47.63%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	19	0	0	321	82	0	0	102	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**2,876**	**297**	**0**	**921**	**777**	**29**	**0**	**722**	**0**	**0**	**0**

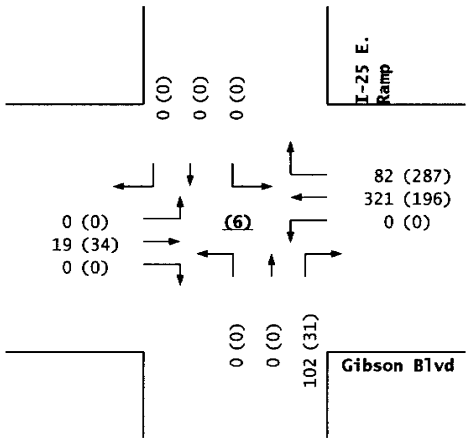
	Eastbound (Gibson Blvd)			**Westbound (Gibson Blvd)**			**Northbound (I-25 E. Ramp)**			**Southbound (I-25 E. Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,245	246	0	1,394	1,197	12	0	310	0	0	0
Background Traffic Growth	0	44	9	0	49	42	6	0	145	0	0	0
Subtotal	0	1,289	255	0	1,443	1,239	18	0	455	0	0	0
UNM Gibson CD - Community Retail	0	40	0	0	41	41	0	0	40	0	0	0
UNM Gibson CD - Fast Food / Market	0	0	0	0	36	36	0	0	0	0	0	0
UNM Gibson CD - Destination Retail	0	33	0	0	38	38	0	0	33	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,362***	***255***	***0***	***1,558***	***1,354***	***18***	***0***	***528***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	***7.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.20%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.20%***	***7.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***50.52%***	*0.00%*	*0.00%*	*0.00%*	***17.30%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.19%***	***47.63%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	34	0	0	196	287	0	0	31	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**1,396**	**255**	**0**	**1,754**	**1,641**	**18**	**0**	**559**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

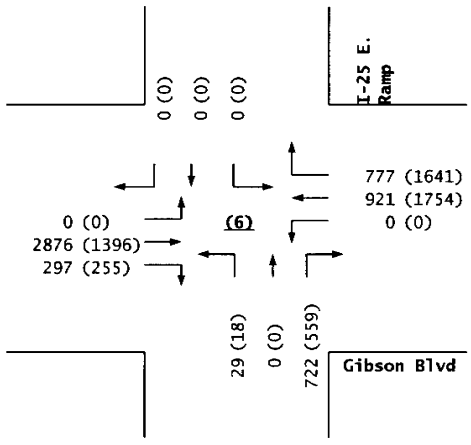
2020
NO BUILD



Trips



2020
BUILD



Gibson Blvd / I-25 E. Ramp

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Miles Rd / Girard Blvd

INTERSECTION: E-W Street: **Miles Rd (Driveway "B")** (7)

N-S Street: **Girard Blvd**

Year of Existing Counts 2013

Implementation Year **2020**

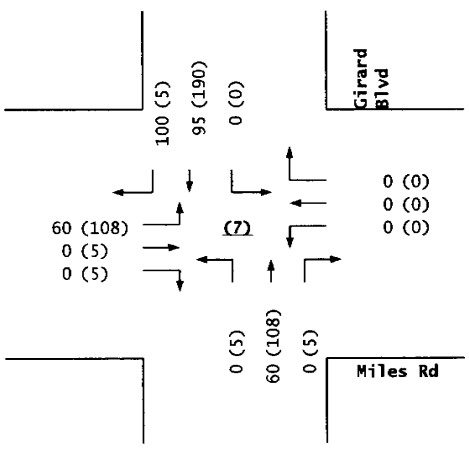
Growth Rates

	1.00%			1.00%			5.00%			1.00%		
	Eastbound (Miles Rd)			**Westbound (Miles Rd)**			**Northbound (Girard Blvd)**			**Southbound (Girard Blvd)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - A.M.)	***60***	***0***	***0***	***0***	***0***	***0***	***0***	***60***	***0***	***0***	***95***	***100***
Percent Commercial Trips Generated(Entering)	*0.00%*	***0.08%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.08%***	***29.53%***	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***0.08%***	***0.08%***	***71.02%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	***0.39%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.39%***	***34.22%***	***65.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***16.00%***	***34.84%***	*0.00%*	***65.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	2	0	0	22	215	0	88	2	280	378	0
Total AM Peak Hour BUILD Volumes	**60**	**2**	**0**	**0**	**22**	**215**	**0**	**148**	**2**	**280**	**473**	**100**

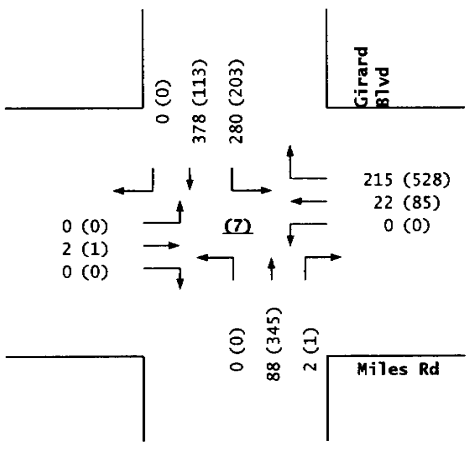
	1.00%			1.00%			5.00%			2.41%		
	Eastbound (Miles Rd)			**Westbound (Miles Rd)**			**Northbound (Girard Blvd)**			**Southbound (Girard Blvd)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - P.M.)	***108***	***5***	***5***	***0***	***0***	***0***	***5***	***108***	***5***	***0***	***190***	***5***
Percent Commercial Trips Generated(Entering)	*0.00%*	***0.08%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.08%***	***29.53%***	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***0.08%***	***0.08%***	***71.02%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	***0.39%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.39%***	***34.22%***	***65.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***16.00%***	***34.84%***	*0.00%*	***65.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	0	85	528	0	345	1	203	113	0
Total PM Peak Hour BUILD Volumes	**108**	**6**	**5**	**0**	**85**	**528**	**5**	**453**	**6**	**203**	**303**	**5**

	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

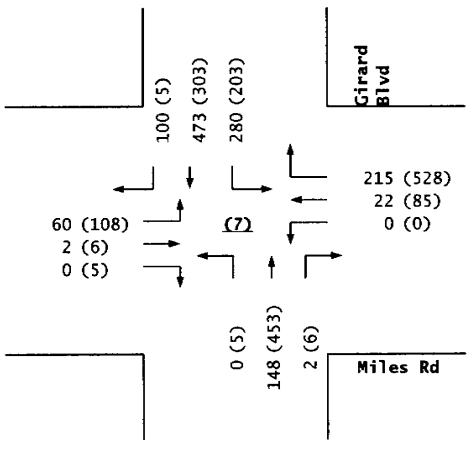
2020
NO BUILD



Trips



2020
BUILD



Miles Rd / Girard Blvd

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Driveway "C" / Girard Blvd.

INTERSECTION: E-W Street: **Driveway "C"** (8)

N-S Street: **Girard Blvd.**

Year of Existing Counts 2013

Implementation Year **2020**

Growth Rates 1.00% 1.00% 5.00% 1.00%

	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***120***	***0***	***0***	***196***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***30.00%***	***35.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***30.00%***	*0.00%*	***35.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	41	0	48	0	174	203	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**168**	**0**	**174**	**399**	**0**

	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***66***	***0***	***0***	***195***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***30.00%***	***35.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***30.00%***	*0.00%*	***35.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	159	0	186	0	52	61	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**159**	**0**	**252**	**0**	**52**	**256**	**0**

	Entering	Exiting		
Number of Residential Trips Generated	***0***	***0***	A.M.	100% Residential Development
	0	***0***	P.M.	
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
2014 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2014 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	**0**	**0**	**0**	**0**
2013 PM Link Volume	**0**	**0**	**0**	**0**
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**370**	**327**	**1248**	**1049**
2015 PM Link Volume	**313**	**1024**	**1058**	**1246**
2035 AM Link Volume	**1468**	**848**	**1609**	**777**
2035 PM Link Volume	**923**	**1753**	**1389**	**1534**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
2013-2035 PM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	**14.84%**	**7.97%**	**1.45%**	**-1.30%**
2015-2035 PM Growth Rates	**9.74%**	**3.56%**	**1.56%**	**1.16%**

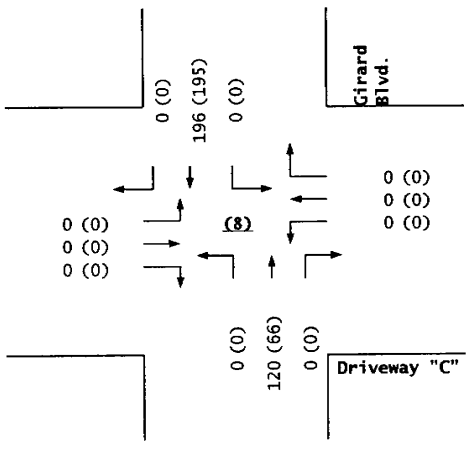
Pass-by Trip Calculations:

AM Pass-by Trips	***Eastbound (Driveway "C")***			***Westbound (Driveway "C")***			***Northbound (Girard Blvd.)***			***Southbound (Girard Blvd.)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

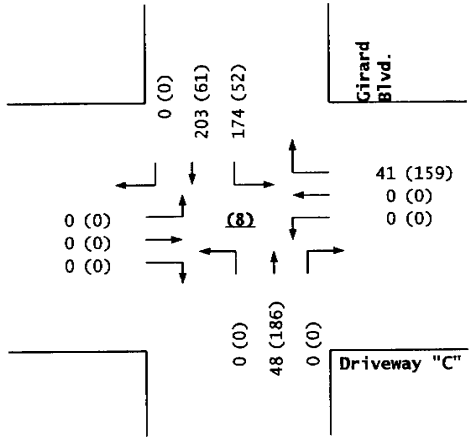
PM Pass-by Trips	***Eastbound (Driveway "C")***			***Westbound (Driveway "C")***			***Northbound (Girard Blvd.)***			***Southbound (Girard Blvd.)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***0***	***0***	*AM*
	0	***0***	*PM*

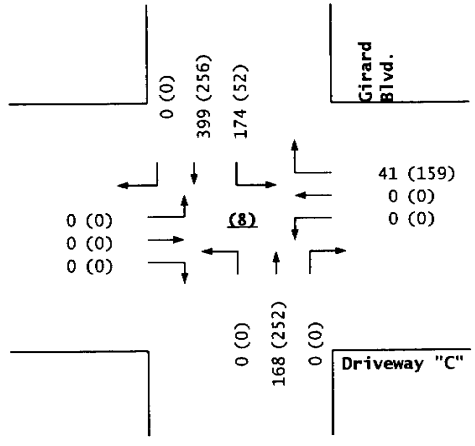
2020
NO BUILD



Trips



2020
BUILD



Driveway "C" / Girard Blvd.

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Driveway "D" / Girard Blvd.

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

N-S Street: Girard Blvd.

Year of Existing Counts 2013

Implementation Year **2020**

Growth Rates	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Driveway "D")			**Westbound (Driveway "D")**			**Northbound (Girard Blvd.)**			**Southbound (Girard Blvd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***60***	***0***	***0***	***60***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	***15.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	27	0	20	0	116	87	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**80**	**0**	**116**	**147**	**0**

	Eastbound (Driveway "D")			**Westbound (Driveway "D")**			**Northbound (Girard Blvd.)**			**Southbound (Girard Blvd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***60***	***0***	***0***	***60***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	***15.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	106	0	80	0	35	26	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**106**	**0**	**140**	**0**	**35**	**86**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Driveway "D")			**Westbound (Driveway "D")**			**Northbound (Girard Blvd.)**			**Southbound (Girard Blvd.)**		
2014 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2014 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

MRCOG Forecast Volumes Worksheet

Based on 2013 Traffic Count				
2013 AM Link Volume	**0**	**0**	**0**	**0**
2013 PM Link Volume	**0**	**0**	**0**	**0**
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**370**	**327**	**1248**	**1049**
2015 PM Link Volume	**313**	**1024**	**1058**	**1246**
2035 AM Link Volume	1468	848	1609	777
2035 PM Link Volume	923	1753	1389	1534
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2013-2035 AM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
2013-2035 PM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	14.84%	7.97%	1.45%	-1.30%
2015-2035 PM Growth Rates	9.74%	3.56%	1.56%	1.16%

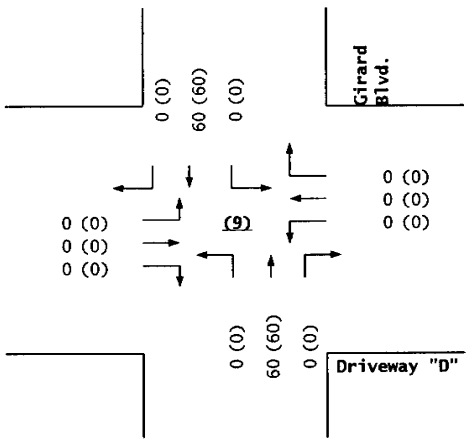
Pass-by Trip Calculations:

AM Pass-by Trips	***Eastbound (Driveway "D")***			***Westbound (Driveway "D")***			***Northbound (Girard Blvd.)***			***Southbound (Girard Blvd.)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

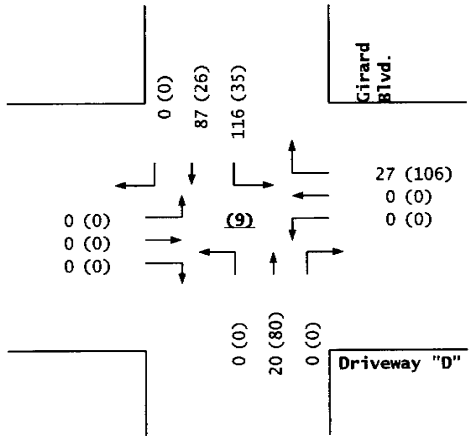
PM Pass-by Trips	***Eastbound (Driveway "D")***			***Westbound (Driveway "D")***			***Northbound (Girard Blvd.)***			***Southbound (Girard Blvd.)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***0***	***0***	*AM*
	0	***0***	*PM*

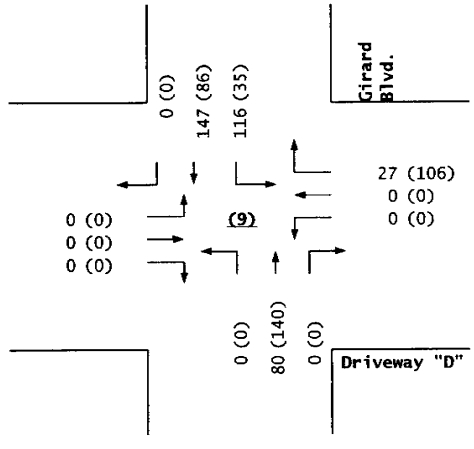
2020
NO BUILD



Trips



2020
BUILD



Driveway "D" / Girard Blvd.

Sunport ACE Project (Gibson Blvd. East of Girard Blvd.)

Projected Turning Movements Worksheet

Driveway "E" / Girard Blvd.

INTERSECTION: E-W Street: **Driveway "E"** (10)

N-S Street: **Girard Blvd.**

Year of Existing Counts 2011

Implementation Year **2020**

	Growth Rates	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
		1.00%			1.00%			1.00%			1.00%		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes													
Background Traffic Growth													
Subtotal (NO BUILD - A.M.)		***0***	***0***	***0***	***0***	***0***	***0***	***0***	***60***	***0***	***0***	***60***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	0	0	20	0	0	0	87	0	0
Total AM Peak Hour BUILD Volumes		**0**	**0**	**0**	**0**	**0**	**20**	**0**	**60**	**0**	**87**	**60**	**0**

	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes												
Background Traffic Growth												
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***60***	***0***	***0***	***60***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*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%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	80	0	0	0	26	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**80**	**0**	**60**	**0**	**26**	**60**	**0**

	Entering	Exiting		
Number of Residential Trips Generated	***0***	***0***	A.M.	
	0	***0***	P.M.	
Number of Commercial Trips Generated	**275**	**236**	A.M.	100% Commercial Development
	484	**483**	P.M.	
Number of Office Trips Generated	**581**	**136**	A.M.	100% Office Development
	174	**531**	P.M.	

	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
2014 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2014 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

MRCOG Forecast Volumes Worksheet

Based on 2011 Traffic Count				
2011 AM Link Volume	**0**	**0**	**0**	**0**
2011 PM Link Volume	**0**	**0**	**0**	**0**
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**370**	**327**	**1248**	**1049**
2015 PM Link Volume	**313**	**1024**	**1058**	**1246**
2035 AM Link Volume	**1468**	**848**	**1609**	**777**
2035 PM Link Volume	**923**	**1753**	**1389**	**1534**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2011-2035 AM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
2011-2035 PM Growth Rates	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**
Growth Rate to Apply to 2015 Model Volumes to Match 2025 Forecasts				
2015-2035 AM Growth Rates	**14.84%**	**7.97%**	**1.45%**	**-1.30%**
2015-2035 PM Growth Rates	**9.74%**	**3.56%**	**1.56%**	**1.16%**

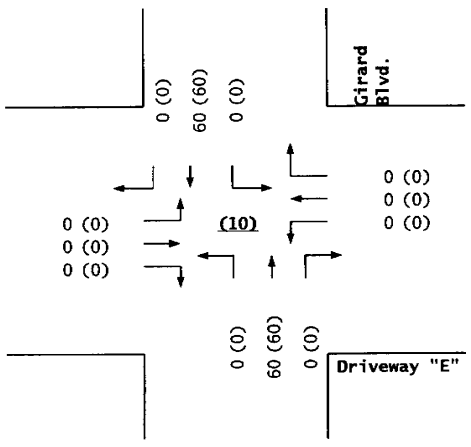
Pass-by Trip Calculations:

AM Pass-by Trips	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

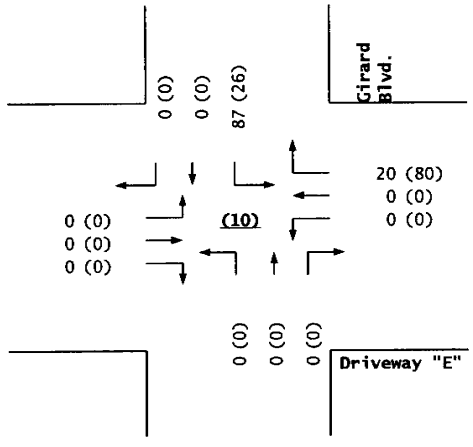
PM Pass-by Trips	Eastbound (Driveway "E")			Westbound (Driveway "E")			Northbound (Girard Blvd.)			Southbound (Girard Blvd.)		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent 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%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

	Entering	Exiting	
Pass-by Trips	***0***	***0***	*AM*
	0	***0***	*PM*

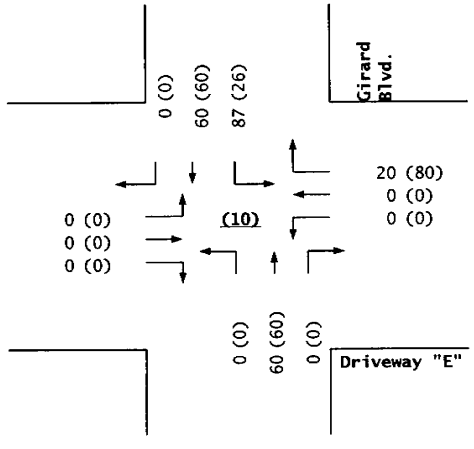
2020
NO BUILD



Trips



2020
BUILD



Driveway "E" / Girard Blvd.

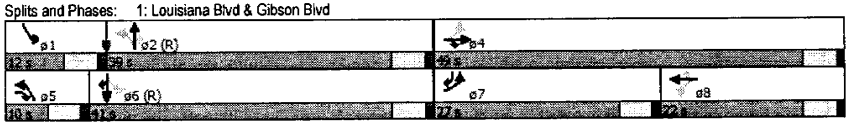
Timings
1: Louisiana Blvd & Gibson Blvd

Terry O. Brown, P.E.
3/26/2014 - Synchro 8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	763	8	12	205	40	3	5	15	334	45	505
Turn Type	pm+pt	NA	pt+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5		8		5	2		1	6	6 7
Permitted Phases	4			8		8	2		2	6		
Detector Phase	7	4	4 5	8	8	8	5	2	2	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0		21.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	27.0	49.0		22.0	22.0	22.0	10.0	39.0	39.0	12.0	41.0	
Total Split (%)	27.0%	49.0%		22.0%	22.0%	22.0%	10.0%	39.0%	39.0%	12.0%	41.0%	
Yellow Time (s)	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	
Lost Time Adjust (s)	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	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min	Min	Min	C-Min	C-Min	Min	C-Min	
Act Effct Green (s)	35.1	35.1	45.8	9.6	9.6	9.6	44.5	38.9	38.9	54.1	44.2	69.8
Actuated g/C Ratio	0.35	0.35	0.46	0.10	0.10	0.10	0.44	0.39	0.39	0.54	0.44	0.70
v/c Ratio	0.63	0.65	0.01	0.18	0.45	0.16	0.00	0.01	0.02	0.25	0.06	0.44
Control Delay	16.2	15.7	1.1	46.5	45.4	1.2	14.7	25.2	0.1	13.2	19.4	2.8
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	16.2	15.7	1.1	46.5	45.4	1.2	14.7	25.2	0.1	13.2	19.4	2.8
LOS	B	B	A	D	D	A	B	C	A	B	B	A
Approach Delay		15.8			38.6			7.1			7.5	
Approach LOS		B			D			A			A	

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 97 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 15.0 Intersection LOS: B
Intersection Capacity Utilization 54.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Louisiana Blvd & Gibson Blvd



HCM 2010 Signalized Intersection Summary
1: Louisiana Blvd & Gibson Blvd

Terry O. Brown, P.E.
3/26/2014 - Synchro 8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	280	763	8	12	205	40	3	5	15	334	45	505
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	295	803	8	13	216	0	3	5	16	352	47	532
Adj No. of Lanes	1	2	1	1	3	1	1	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	525	1355	721	200	720	224	476	545	463	1329	594	772
Arrive On Green	0.17	0.39	0.39	0.14	0.14	0.00	0.07	0.30	0.30	0.10	0.32	0.32
Sat Flow, veh/h	1757	3505	1568	663	5036	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	295	803	8	13	216	0	3	5	16	352	47	532
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	663	1679	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	9.1	12.5	0.2	1.2	2.6	0.0	0.1	0.1	0.5	4.8	1.2	17.9
Cycle Q Clear(g_c), s	9.1	12.5	0.2	1.2	2.6	0.0	0.1	0.1	0.5	4.8	1.2	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	525	1355	721	200	720	224	476	545	463	1329	594	772
V/C Ratio(X)	0.56	0.59	0.01	0.07	0.30	0.00	0.01	0.01	0.03	0.26	0.08	0.69
Avail Cap(c_a), veh/h	788	2248	1120	269	1248	388	476	914	777	1338	968	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	16.7	10.1	25.7	26.3	0.0	13.7	17.1	17.2	14.0	16.2	13.4
Incr Delay (d2), s/veh	0.6	0.3	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.3	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	6.1	0.1	0.2	1.2	0.0	0.0	0.1	0.2	2.2	0.7	8.7
LnGrp Delay(d),s/veh	18.6	17.0	10.1	25.8	26.6	0.0	13.7	17.1	17.4	14.1	16.5	18.3
LnGrp LOS	B	B	B	C	C		B	B	B	B	B	B
Approach Vol, veh/h		1106			229			24			931	
Approach Delay, s/veh		17.4			26.5			16.8			16.7	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	56.6		31.5	10.0	58.5	16.7	14.8
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	34.0		44.0	5.0	36.0	22.0	17.0
Max Q Clear Time (g_c+I1), s	6.8	2.5		14.5	2.1	19.9	11.1	4.6
Green Ext Time (p_c), s	0.0	2.5		7.5	0.0	2.2	0.6	5.2

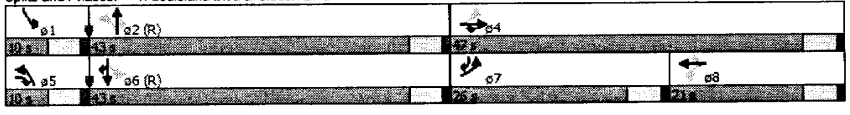
Intersection Summary
HCM 2010 Ctrl Delay 18.0
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	287	775	8	12	257	40	3	5	15	334	45	535
Turn Type	pm+pt	NA	pt+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5		8		5	2		1	6	6 7
Permitted Phases	4			8		8	2		2	6		
Detector Phase	7	4	4 5	8	8	8	5	2	2	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0		21.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	26.0	47.0		21.0	21.0	21.0	10.0	43.0	43.0	10.0	43.0	
Total Split (%)	26.0%	47.0%		21.0%	21.0%	21.0%	10.0%	43.0%	43.0%	10.0%	43.0%	
Yellow Time (s)	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	
Lost Time Adjust (s)	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	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min	Min	Min	C-Min	C-Min	Min	C-Min	
Act Effct Green (s)	36.9	36.9	47.5	10.7	10.7	10.7	44.1	38.4	38.4	51.8	42.5	68.7
Actuated g/C Ratio	0.37	0.37	0.48	0.11	0.11	0.11	0.44	0.38	0.38	0.52	0.42	0.69
v/c Ratio	0.63	0.63	0.01	0.18	0.50	0.15	0.00	0.01	0.02	0.26	0.06	0.48
Control Delay	21.6	21.2	5.8	45.6	45.2	1.1	15.0	23.4	0.1	14.3	20.6	4.1
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	21.6	21.2	5.8	45.6	45.2	1.1	15.0	23.4	0.1	14.3	20.6	4.1
LOS	C	C	A	D	D	A	B	C	A	B	C	A
Approach Delay		21.2			39.6			6.8			8.6	
Approach LOS		C			D			A			A	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Louisiana Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	287	775	8	12	257	40	3	5	15	334	45	535
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	302	816	8	13	271	0	3	5	16	352	47	563
Adj No. of Lanes	1	2	1	1	3	1	1	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	508	1355	715	195	731	228	477	620	527	1326	620	796
Arrive On Green	0.17	0.39	0.39	0.15	0.15	0.00	0.07	0.34	0.34	0.07	0.34	0.34
Sat Flow, veh/h	1757	3505	1568	655	5036	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	302	816	8	13	271	0	3	5	16	352	47	563
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	655	1679	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	9.8	13.4	0.2	1.2	3.5	0.0	0.1	0.1	0.5	4.9	1.3	19.9
Cycle Q Clear(g_c), s	9.8	13.4	0.2	1.2	3.5	0.0	0.1	0.1	0.5	4.9	1.3	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	508	1355	715	195	731	228	477	620	527	1326	620	796
V/C Ratio(X)	0.60	0.60	0.01	0.07	0.37	0.00	0.01	0.01	0.03	0.27	0.08	0.71
Avail Cap(c_a), veh/h	717	2042	1022	245	1118	348	477	973	827	1326	973	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.7	10.7	26.9	27.8	0.0	12.8	15.9	16.1	14.2	16.3	13.6
Incr Delay (d2), s/veh	0.7	0.3	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.1	0.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	6.5	0.1	0.2	1.7	0.0	0.0	0.1	0.2	2.3	0.7	9.7
LnGrp Delay(d),s/veh	19.7	18.0	10.7	27.0	28.1	0.0	12.8	16.0	16.2	14.3	16.5	18.9
LnGrp LOS	B	B	B	C	C		B	B	B	B	B	B
Approach Vol, veh/h		1126			284			24			962	
Approach Delay, s/veh		18.4			28.1			15.7			17.1	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	57.1		32.9	10.0	57.1	17.4	15.5
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	38.0		42.0	5.0	38.0	21.0	16.0
Max Q Clear Time (g_c+I1), s	6.9	2.5		15.4	2.1	21.9	11.8	5.5
Green Ext Time (p_c), s	0.0	2.7		7.8	0.0	2.3	0.6	5.0

Intersection Summary

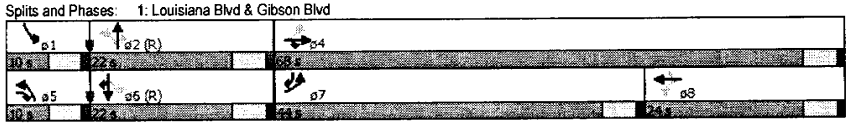
HCM 2010 Ctrl Delay 19.0
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	656	273	3	22	816	265	35	61	66	56	23	340
Turn Type	pm+pt	NA	pt+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5		8		5	2		1	6	6 7
Permitted Phases	4			8		8	2		2	6		
Detector Phase	7	4	4 5	8	8	8	5	2	2	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0		21.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	44.0	68.0		24.0	24.0	24.0	10.0	22.0	22.0	10.0	22.0	
Total Split (%)	44.0%	68.0%		24.0%	24.0%	24.0%	10.0%	22.0%	22.0%	10.0%	22.0%	
Yellow Time (s)	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	
Lost Time Adjust (s)	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	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min	Min	Min	C-Min	C-Min	Min	C-Min	
Act Effct Green (s)	67.0	67.0	77.1	19.5	19.5	19.5	18.0	12.9	12.9	18.0	12.9	60.4
Actuated g/C Ratio	0.67	0.67	0.77	0.20	0.20	0.20	0.18	0.13	0.13	0.18	0.13	0.60
v/c Ratio	0.88	0.13	0.00	0.12	0.92	0.54	0.14	0.28	0.23	0.12	0.11	0.37
Control Delay	34.6	6.5	0.0	35.4	54.6	8.4	30.5	41.3	2.5	29.7	37.8	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	34.6	6.5	0.0	35.4	54.6	8.4	30.5	41.3	2.5	29.7	37.8	6.0
LOS	C	A	A	D	D	A	C	D	A	C	D	A
Approach Delay		26.3			43.2			23.1			10.9	
Approach LOS		C			D			C			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
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: 30.7 — Intersection LOS: C
Intersection Capacity Utilization 73.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Louisiana Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	656	273	3	22	816	265	35	61	66	56	23	340
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	721	300	3	24	897	0	38	67	73	62	25	374
Adj No. of Lanes	1	2	1	1	3	1	1	1	1	2	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	753	2195	1063	283	988	308	316	307	261	648	307	854
Arrive On Green	0.38	0.63	0.63	0.20	0.20	0.00	0.05	0.17	0.17	0.05	0.17	0.17
Sat Flow, veh/h	1757	3505	1568	1062	5036	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	721	300	3	24	897	0	38	67	73	62	25	374
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1062	1679	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	33.6	3.4	0.1	1.8	16.8	0.0	1.7	3.0	3.9	1.4	1.1	13.8
Cycle Q Clear(g_c), s	33.6	3.4	0.1	1.8	16.8	0.0	1.7	3.0	3.9	1.4	1.1	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	753	2195	1063	283	988	308	316	307	261	648	307	854
V/C Ratio(X)	0.96	0.14	0.00	0.08	0.91	0.00	0.12	0.22	0.28	0.10	0.08	0.44
Avail Cap(c_a), veh/h	797	2286	1104	283	991	308	316	325	276	648	325	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	7.4	5.0	31.9	38.0	0.0	30.2	34.8	35.2	30.1	34.0	13.1
Incr Delay (d2), s/veh	18.5	0.0	0.0	0.1	11.9	0.0	0.2	1.6	2.7	0.1	0.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	1.6	0.0	0.5	8.9	0.0	0.8	1.7	1.9	0.7	0.6	6.3
LnGrp Delay(d),s/veh	40.8	7.4	5.0	32.1	49.8	0.0	30.3	36.4	37.8	30.2	34.5	14.8
LnGrp LOS	D	A	A	C	D		C	D	D	C	C	B
Approach Vol, veh/h		1024			921			178			461	
Approach Delay, s/veh		30.9			49.4			35.7			17.9	
Approach LOS		C			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	24.5		65.5	10.0	24.5	41.6	24.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	17.0		63.0	5.0	17.0	39.0	19.0
Max Q Clear Time (g_c+I1), s	3.4	5.9		5.4	3.7	15.8	35.6	18.8
Green Ext Time (p_c), s	0.0	1.7		10.0	0.0	0.3	1.0	0.1

Intersection Summary

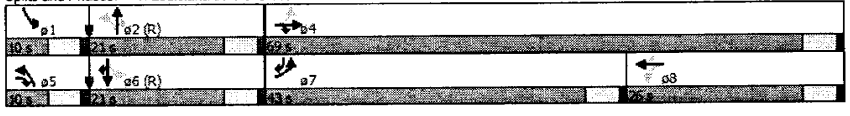
HCM 2010 Ctrl Delay 35.5
HCM 2010 LOS D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	684	320	3	22	832	265	35	61	66	56	23	349
Turn Type	pm+pt	NA	pt+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5		8		5	2		1	6	6 7
Permitted Phases	4			8		8	2		2	6		
Detector Phase	7	4	4 5	8	8	8	5	2	2	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0		21.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	43.0	69.0		26.0	26.0	26.0	10.0	21.0	21.0	10.0	21.0	
Total Split (%)	43.0%	69.0%		26.0%	26.0%	26.0%	10.0%	21.0%	21.0%	10.0%	21.0%	
Yellow Time (s)	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	
Lost Time Adjust (s)	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	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min	Min	Min	C-Min	C-Min	Min	C-Min	
Act Effct Green (s)	67.2	67.2	77.3	21.0	21.0	21.0	17.8	12.7	12.7	17.8	12.7	59.0
Actuated g/C Ratio	0.67	0.67	0.77	0.21	0.21	0.21	0.18	0.13	0.13	0.18	0.13	0.59
v/c Ratio	0.94	0.15	0.00	0.11	0.87	0.52	0.15	0.29	0.23	0.12	0.11	0.39
Control Delay	44.9	6.5	0.0	33.8	48.2	7.8	30.5	41.4	2.5	29.7	37.8	7.2
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	44.9	6.5	0.0	33.8	48.2	7.8	30.5	41.4	2.5	29.7	37.8	7.2
LOS	D	A	A	C	D	A	C	D	A	C	D	A
Approach Delay		32.6			38.3			23.1			11.8	
Approach LOS		C			D			C			B	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
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: 0.94
Intersection Signal Delay: 31.1 Intersection LOS: C
Intersection Capacity Utilization 75.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Louisiana Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	684	320	3	22	832	265	35	61	66	56	23	349
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	752	352	3	24	914	0	38	67	73	62	25	384
Adj No. of Lanes	1	2	1	1	3	1	1	1	1	2	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	761	2238	1080	281	1041	324	304	296	252	624	296	850
Arrive On Green	0.38	0.64	0.64	0.21	0.21	0.00	0.05	0.16	0.16	0.05	0.16	0.16
Sat Flow, veh/h	1757	3505	1568	1012	5036	1568	1757	1845	1568	3408	1845	1568
Grp Volume(v), veh/h	752	352	3	24	914	0	38	67	73	62	25	384
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1012	1679	1568	1757	1845	1568	1704	1845	1568
Q Serve(g_s), s	37.1	4.0	0.1	1.9	17.5	0.0	1.7	3.2	4.1	1.5	1.1	14.8
Cycle Q Clear(g_c), s	37.1	4.0	0.1	1.9	17.5	0.0	1.7	3.2	4.1	1.5	1.1	14.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	761	2238	1080	281	1041	324	304	296	252	624	296	850
V/C Ratio(X)	0.99	0.16	0.00	0.09	0.88	0.00	0.12	0.23	0.29	0.10	0.08	0.45
Avail Cap(c_a), veh/h	761	2253	1086	286	1062	331	304	296	252	624	296	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	7.2	4.8	32.1	38.3	0.0	31.7	36.4	36.8	31.6	35.6	13.8
Incr Delay (d2), s/veh	25.0	0.0	0.0	0.1	8.5	0.0	0.2	1.8	2.9	0.1	0.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.5	1.9	0.0	0.5	8.9	0.0	0.8	1.7	2.0	0.7	0.6	6.8
LnGrp Delay(d),s/veh	48.5	7.3	4.8	32.2	46.7	0.0	31.9	38.2	39.7	31.7	36.1	15.5
LnGrp LOS	D	A	A	C	D		C	D	D	C	D	B
Approach Vol, veh/h		1107			938			178			471	
Approach Delay, s/veh		35.3			46.4			37.4			18.8	
Approach LOS		D			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.4		68.6	10.0	21.4	43.0	25.6
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0		64.0	5.0	16.0	38.0	21.0
Max Q Clear Time (g_c+I1), s	3.5	6.1		6.0	3.7	16.8	39.1	19.5
Green Ext Time (p_c), s	0.0	1.6		10.8	0.0	0.0	0.0	1.1

Intersection Summary

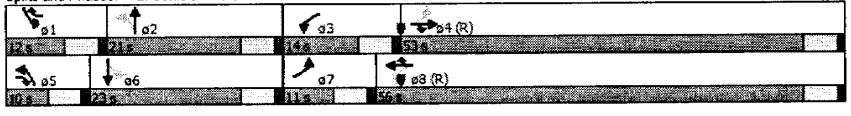
HCM 2010 Ctrl Delay 36.4
HCM 2010 LOS D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	104	1809	373	115	1013	45	62	8	135	110
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6
Permitted Phases	4			8			2		6	
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0
Total Split (s)	11.0	53.0		14.0	56.0		10.0	21.0	12.0	23.0
Total Split (%)	11.0%	53.0%		14.0%	56.0%		10.0%	21.0%	12.0%	23.0%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Min		Min	C-Min		Min	Min	Min	Min
Act Effct Green (s)	63.9	56.4	66.5	66.4	57.6	69.7	12.8	7.7	16.9	9.7
Actuated g/C Ratio	0.64	0.56	0.66	0.66	0.58	0.70	0.13	0.08	0.17	0.10
v/c Ratio	0.31	0.69	0.34	0.54	0.38	0.04	0.41	0.07	0.63	0.61
Control Delay	2.8	4.7	0.7	19.6	14.8	1.6	41.2	28.9	48.3	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	4.7	0.7	19.6	14.8	1.6	41.2	28.9	48.3	24.0
LOS	A	A	A	B	B	A	D	C	D	C
Approach Delay		4.0			14.7			38.6		32.3
Approach LOS		A			B			D		C

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 44 (44%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 70.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	104	1809	373	115	1013	45	62	8	8	135	110	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	190.0
Adj Flow Rate, veh/h	112	1945	401	124	1089	48	67	9	9	145	118	161
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	375	2649	914	216	2649	949	218	197	170	366	233	209
Arrive On Green	0.06	0.53	0.53	0.06	0.53	0.53	0.06	0.11	0.11	0.08	0.13	0.13
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1787	1539	1757	1752	1568
Grp Volume(v), veh/h	112	1945	401	124	1089	48	67	9	9	145	118	161
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1573	1757	1752	1568
Q Serve(g_s), s	2.5	26.2	12.6	2.8	11.5	1.1	2.9	0.4	0.5	6.4	5.5	8.7
Cycle Q Clear(g_c), s	2.5	26.2	12.6	2.8	11.5	1.1	2.9	0.4	0.5	6.4	5.5	8.7
Prop in Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	375	2649	914	216	2649	949	218	193	174	366	233	209
V/C Ratio(X)	0.30	0.73	0.44	0.57	0.41	0.05	0.31	0.05	0.05	0.40	0.51	0.77
Avail Cap(c_a), veh/h	395	2747	944	296	2919	1033	218	319	286	366	358	321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	16.1	10.3	17.6	12.6	7.1	32.0	35.0	35.0	31.5	35.5	36.9
Incr Delay (d2), s/veh	0.3	1.1	0.9	2.2	0.4	0.1	0.8	0.1	0.1	0.7	1.7	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	12.3	5.7	1.7	5.4	0.5	1.4	0.2	0.2	3.2	2.8	4.1
LnGrp Delay(d),s/veh	9.4	17.2	11.2	19.8	13.0	7.2	32.8	35.1	35.2	32.2	37.2	42.9
LnGrp LOS	A	B	B	B	B	A	C	D	D	C	D	D
Approach Vol, veh/h		2458			1261			85			424	
Approach Delay, s/veh		15.9			13.5			33.3			37.6	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	14.7	10.0	63.3	10.0	16.7	10.0	63.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	16.0	9.0	48.0	5.0	18.0	6.0	51.0
Max Q Clear Time (g_c+I1), s	8.4	2.5	4.8	28.2	4.9	10.7	4.5	13.5
Green Ext Time (p_c), s	0.0	1.4	0.1	18.0	0.0	1.0	0.0	32.0

Intersection Summary

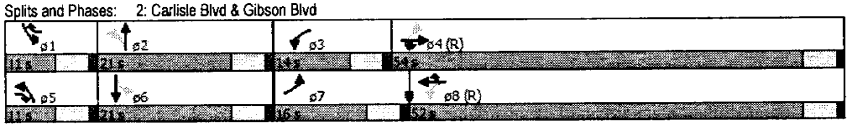
HCM 2010 Ctrl Delay 17.7
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	163	1874	374	115	1164	45	63	8	135	110
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6
Permitted Phases	4			8			2		6	
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0
Total Split (s)	16.0	54.0		14.0	52.0		11.0	21.0	11.0	21.0
Total Split (%)	16.0%	54.0%		14.0%	52.0%		11.0%	21.0%	11.0%	21.0%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Min		Min	C-Min		Min	Min	Min	Min
Act Effct Green (s)	63.9	54.9	65.9	62.1	54.0	65.4	16.6	10.7	17.4	11.1
Actuated g/C Ratio	0.64	0.55	0.66	0.62	0.54	0.65	0.17	0.11	0.17	0.11
v/c Ratio	0.54	0.73	0.35	0.58	0.46	0.05	0.38	0.05	0.57	0.69
Control Delay	15.5	8.0	0.6	28.9	15.0	0.5	36.9	26.0	42.8	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	8.0	0.6	28.9	15.0	0.5	36.9	26.0	42.8	23.1
LOS	B	A	A	C	B	A	D	C	D	C
Approach Delay		7.4			15.7			34.6		28.5
Approach LOS		A			B			C		C

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 44 (44%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 12.9 — Intersection LOS: B
Intersection Capacity Utilization 74.5% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	163	1874	374	115	1164	45	63	8	8	135	110	248
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	190.0
Adj Flow Rate, veh/h	175	2015	402	124	1252	48	68	9	9	145	118	267
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	338	2566	882	201	2491	875	169	284	245	400	297	266
Arrive On Green	0.07	0.51	0.51	0.06	0.49	0.49	0.05	0.16	0.16	0.06	0.17	0.17
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1787	1539	1757	1752	1568
Grp Volume(v), veh/h	175	2015	402	124	1252	48	68	9	9	145	118	267
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1573	1757	1752	1568
Q Serve(g_s), s	4.5	30.9	14.2	3.2	15.8	1.3	3.0	0.4	0.5	6.0	5.7	16.0
Cycle Q Clear(g_c), s	4.5	30.9	14.2	3.2	15.8	1.3	3.0	0.4	0.5	6.0	5.7	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	338	2566	882	201	2491	875	169	278	250	400	297	266
V/C Ratio(X)	0.52	0.79	0.46	0.62	0.50	0.05	0.40	0.03	0.04	0.36	0.40	1.01
Avail Cap(c_a), veh/h	418	2613	897	269	2506	880	188	297	267	400	297	266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	18.9	12.1	20.0	16.0	9.5	31.7	33.6	33.6	31.2	34.9	39.2
Incr Delay (d2), s/veh	1.2	2.5	1.7	2.7	0.6	0.1	1.5	0.0	0.1	0.6	0.9	56.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	14.8	6.5	1.7	7.4	0.6	1.5	0.2	0.2	0.4	2.8	11.0
LnGrp Delay(d),s/veh	13.4	21.4	13.8	22.7	16.7	9.6	33.2	33.6	33.7	31.7	35.8	95.7
LnGrp LOS	B	C	B	C	B	A	C	C	C	C	D	F
Approach Vol, veh/h		2592			1424			86			530	
Approach Delay, s/veh		19.7			17.0			33.3			64.9	
Approach LOS		B			B			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.0	10.3	58.7	10.0	21.0	11.7	57.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	16.0	9.0	49.0	6.0	16.0	11.0	47.0
Max Q Clear Time (g_c+I1), s	8.0	2.5	5.2	32.9	5.0	18.0	6.5	17.8
Green Ext Time (p_c), s	0.0	2.1	0.1	15.2	0.0	0.0	0.2	26.6

Intersection Summary

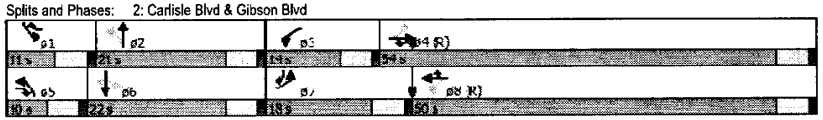
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	163	1874	374	115	1164	45	63	8	135	110	248
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6	7
Permitted Phases	4			8			2		6		6
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0	10.0
Total Split (s)	18.0	54.0		14.0	50.0		10.0	21.0	11.0	22.0	18.0
Total Split (%)	18.0%	54.0%		14.0%	50.0%		10.0%	21.0%	11.0%	22.0%	18.0%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min		Min	C-Min		Min	Min	Min	Min	Min
Act Effct Green (s)	64.4	54.9	65.0	61.8	53.6	64.9	15.7	10.5	18.1	11.8	26.3
Actuated g/C Ratio	0.64	0.55	0.65	0.62	0.54	0.65	0.16	0.10	0.18	0.12	0.26
v/c Ratio	0.53	0.73	0.35	0.57	0.46	0.05	0.31	0.05	0.57	0.54	0.56
Control Delay	12.3	19.7	1.9	25.4	15.9	1.1	34.9	26.4	43.0	50.4	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	19.7	1.9	25.4	15.9	1.1	34.9	26.4	43.0	50.4	24.8
LOS	B	B	A	C	B	A	C	C	D	D	C
Approach Delay		16.5			16.2			33.1		35.5	
Approach LOS		B			B			C		D	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 18.9 — Intersection LOS: B
Intersection Capacity Utilization 69.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	163	1874	374	115	1164	45	63	8	8	135	110	248
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	175	2015	402	124	1252	48	68	9	9	145	118	267
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	336	2545	875	199	2467	867	286	296	255	407	325	388
Arrive On Green	0.07	0.51	0.51	0.06	0.49	0.49	0.05	0.17	0.17	0.06	0.18	0.18
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1787	1539	1757	1845	1568
Grp Volume(v), veh/h	175	2015	402	124	1252	48	68	9	9	145	118	267
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1573	1757	1845	1568
Q Serve(g_s), s	4.6	31.4	14.5	3.3	16.1	1.3	3.0	0.4	0.5	6.0	5.4	14.7
Cycle Q Clear(g_c), s	4.6	31.4	14.5	3.3	16.1	1.3	3.0	0.4	0.5	6.0	5.4	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	336	2545	875	199	2467	867	286	290	260	407	325	388
V/C Ratio(X)	0.52	0.79	0.46	0.62	0.51	0.06	0.24	0.03	0.04	0.36	0.36	0.69
Avail Cap(c_a), veh/h	449	2589	888	266	2467	867	286	294	264	407	329	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	19.4	12.5	20.3	16.5	9.8	30.4	33.4	33.4	31.0	34.6	32.5
Incr Delay (d2), s/veh	1.3	2.6	1.7	2.9	0.7	0.1	0.4	0.0	0.1	0.5	0.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	15.2	6.7	1.7	7.6	0.6	1.5	0.2	0.2	0.4	2.8	6.9
LnGrp Delay(d),s/veh	13.8	22.1	14.3	23.2	17.2	9.9	30.9	33.4	33.4	31.5	35.3	37.4
LnGrp LOS	B	C	B	C	B	A	C	C	C	C	D	D
Approach Vol, veh/h		2592			1424			86			530	
Approach Delay, s/veh		20.3			17.5			31.4			35.3	
Approach LOS		C			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.8	10.4	57.9	10.0	21.8	11.8	56.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	16.0	9.0	49.0	5.0	17.0	13.0	45.0
Max Q Clear Time (g_c+I1), s	8.0	2.5	5.3	33.4	5.0	16.7	6.6	18.1
Green Ext Time (p_c), s	0.0	1.4	0.1	14.7	0.0	0.1	0.2	24.6

Intersection Summary

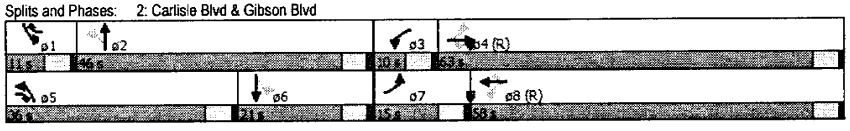
HCM 2010 Ctrl Delay 21.3
HCM 2010 LOS C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	186	1423	10	15	1926	133	569	128	67	6
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	15.0	63.0	36.0	10.0	58.0	11.0	36.0	46.0	11.0	21.0
Total Split (%)	11.5%	48.5%	27.7%	7.7%	44.6%	8.5%	27.7%	35.4%	8.5%	16.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min
Act Effct Green (s)	77.5	66.5	102.5	61.3	55.3	66.3	42.5	31.5	12.5	6.5
Actuated g/C Ratio	0.60	0.51	0.79	0.47	0.43	0.51	0.33	0.24	0.10	0.05
v/c Ratio	0.66	0.56	0.01	0.08	0.92	0.16	1.21	0.25	0.49	0.44
Control Delay	39.8	23.1	0.0	13.2	43.5	6.1	148.7	24.8	47.0	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	23.1	0.0	13.2	43.5	6.1	148.7	24.8	47.0	21.0
LOS	D	C	A	B	D	A	F	C	D	C
Approach Delay		24.9			40.8			115.7		31.2
Approach LOS		C			D			F		C

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 47.4 — Intersection LOS: D
Intersection Capacity Utilization 99.9% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	186	1423	10	15	1926	133	569	128	78	67	6	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	190.0
Adj Flow Rate, veh/h	190	1452	10	15	1965	136	581	131	80	68	6	99
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	210	2341	1119	217	2139	741	525	614	353	241	150	134
Arrive On Green	0.08	0.46	0.46	0.04	0.42	0.42	0.25	0.29	0.29	0.05	0.09	0.09
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	2146	1233	1757	1752	1568
Grp Volume(v), veh/h	190	1452	10	15	1965	136	581	105	106	68	6	99
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1627	1757	1752	1568
Q Serve(g_s), s	8.4	27.0	0.2	0.6	45.8	6.2	31.0	5.7	6.2	4.3	0.4	7.7
Cycle Q Clear(g_c), s	8.4	27.0	0.2	0.6	45.8	6.2	31.0	5.7	6.2	4.3	0.4	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	210	2341	1119	217	2139	741	525	501	466	241	150	134
V/C Ratio(X)	0.91	0.62	0.01	0.07	0.92	0.18	1.11	0.21	0.23	0.28	0.04	0.74
Avail Cap(c_a), veh/h	210	2346	1121	217	2144	743	525	577	536	241	225	202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.60	0.60	0.60	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	25.0	5.1	20.0	33.8	18.9	38.7	33.8	33.9	48.6	52.3	55.6
Incr Delay (d2), s/veh	33.5	1.1	0.0	0.1	5.0	0.3	71.5	0.2	0.2	0.6	0.1	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	12.7	0.1	0.3	22.1	2.8	13.4	2.8	2.8	2.1	0.2	3.6
LnGrp Delay(d),s/veh	66.7	26.1	5.1	20.1	38.8	19.3	110.2	34.0	34.2	49.2	52.4	63.3
LnGrp LOS	E	C	A	C	D	B	F	C	C	D	D	E
Approach Vol, veh/h		1652			2116			792			173	
Approach Delay, s/veh		30.7			37.4			89.9			57.4	
Approach LOS		C			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	40.6	10.0	68.4	36.0	15.6	15.0	63.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	41.0	5.0	58.0	31.0	16.0	10.0	53.0
Max Q Clear Time (g_c+I1), s	6.3	8.2	2.6	29.0	33.0	9.7	10.4	47.8
Green Ext Time (p_c), s	0.0	2.0	0.0	26.3	0.0	0.9	0.0	5.0

Intersection Summary

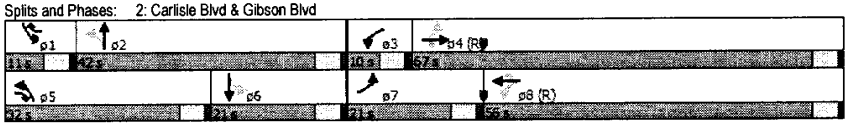
HCM 2010 Ctrl Delay	44.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	324	1601	13	15	2040	133	572	128	67	6
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	21.0	67.0	32.0	10.0	56.0	11.0	32.0	42.0	11.0	21.0
Total Split (%)	16.2%	51.5%	24.6%	7.7%	43.1%	8.5%	24.6%	32.3%	8.5%	16.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min
Act Effct Green (s)	79.5	68.5	100.5	57.0	51.0	62.0	40.5	29.5	14.5	8.5
Actuated g/C Ratio	0.61	0.53	0.77	0.44	0.39	0.48	0.31	0.23	0.11	0.07
v/c Ratio	0.89	0.62	0.01	0.09	1.05	0.17	1.39	0.26	0.44	0.86dr
Control Delay	63.0	23.3	0.0	13.7	74.7	3.1	222.7	25.5	43.4	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	23.3	0.0	13.7	74.7	3.1	222.7	25.5	43.4	27.4
LOS	E	C	A	B	E	A	F	C	D	C
Approach Delay		29.8			69.9			170.4		31.2
Approach LOS		C			E			F		C

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.39
Intersection Signal Delay: 67.9 Intersection LOS: E
Intersection Capacity Utilization 112.7% ICU Level of Service H
Analysis Period (min) 15
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	324	1601	13	15	2040	133	572	128	78	67	6	211
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	190.0
Adj Flow Rate, veh/h	331	1634	13	15	2082	136	584	131	80	68	6	215
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	272	2402	1073	191	1976	687	420	611	351	279	216	193
Arrive On Green	0.12	0.48	0.48	0.04	0.39	0.39	0.21	0.28	0.28	0.05	0.12	0.12
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	2146	1233	1757	1752	1568
Grp Volume(v), veh/h	331	1634	13	15	2082	136	584	105	106	68	6	215
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1627	1757	1752	1568
Q Serve(g_s), s	16.0	32.7	0.3	0.6	51.0	6.9	27.0	6.0	6.5	4.3	0.4	16.0
Cycle Q Clear(g_c), s	16.0	32.7	0.3	0.6	51.0	6.9	27.0	6.0	6.5	4.3	0.4	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	272	2402	1073	191	1976	687	420	499	463	279	216	193
V/C Ratio(X)	1.22	0.68	0.01	0.08	1.05	0.20	1.39	0.21	0.23	0.24	0.03	1.11
Avail Cap(c_a), veh/h	272	2402	1073	191	1976	687	420	499	463	279	216	193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	26.3	6.5	23.1	39.5	22.4	38.5	35.4	35.6	46.7	50.2	57.0
Incr Delay (d2), s/veh	127.0	1.6	0.0	0.1	32.7	0.4	189.5	0.2	0.2	0.5	0.1	98.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	15.5	0.2	0.3	29.6	3.1	37.2	2.9	2.9	2.1	0.2	12.2
LnGrp Delay(d),s/veh	169.9	27.9	6.5	23.3	72.2	22.9	228.0	35.6	35.8	47.1	50.2	155.7
LnGrp LOS	F	C	A	C	F	C	F	D	D	D	D	F
Approach Vol, veh/h		1978			2233			795			289	
Approach Delay, s/veh		51.5			68.8			176.9			128.0	
Approach LOS		D			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	42.0	10.0	67.0	32.0	21.0	21.0	56.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	37.0	5.0	62.0	27.0	16.0	16.0	51.0
Max Q Clear Time (g_c+I1), s	6.3	8.5	2.6	34.7	29.0	18.0	18.0	53.0
Green Ext Time (p_c), s	0.0	2.9	0.0	25.7	0.0	0.0	0.0	0.0

Intersection Summary

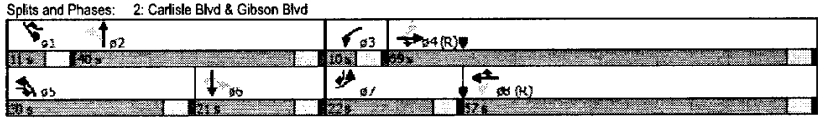
HCM 2010 Ctrl Delay		81.8	
HCM 2010 LOS		F	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	324	1601	13	15	2040	133	572	128	67	6	211
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6	7
Permitted Phases	4			8			2		6		6
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0	10.0
Total Split (s)	22.0	69.0		10.0	57.0		30.0	40.0	11.0	21.0	22.0
Total Split (%)	16.9%	53.1%		7.7%	43.8%		23.1%	30.8%	8.5%	16.2%	16.9%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min		Min	C-Min		Min	Min	Min	Min	Min
Act Effct Green (s)	84.0	73.0	103.0	57.9	52.0	63.0	36.0	25.0	12.0	6.0	38.0
Actuated g/C Ratio	0.65	0.56	0.79	0.45	0.40	0.48	0.28	0.19	0.09	0.05	0.29
v/c Ratio	0.79	0.58	0.01	0.08	1.03	0.16	1.46	0.30	0.50	0.07	0.41
Control Delay	34.0	18.1	0.2	12.2	67.7	3.0	252.9	28.7	51.2	60.7	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	18.1	0.2	12.2	67.7	3.0	252.9	28.7	51.2	60.7	21.6
LOS	C	B	A	B	E	A	F	C	D	E	C
Approach Delay		20.6			63.4			193.4		29.4	
Approach LOS		C			E			F		C	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 80 (62%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.46
Intersection Signal Delay: 65.1 — Intersection LOS: E
Intersection Capacity Utilization 109.9% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: Carlisle Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	324	1601	13	15	2040	133	572	128	78	67	6	211
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	331	1634	13	15	2082	136	584	131	80	68	6	215
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	285	2479	1073	179	2014	700	531	578	332	279	227	398
Arrive On Green	0.04	0.16	0.16	0.04	0.40	0.40	0.19	0.27	0.27	0.05	0.12	0.12
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	2146	1233	1757	1845	1568
Grp Volume(v), veh/h	331	1634	13	15	2082	136	584	105	106	68	6	215
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1627	1757	1845	1568
Q Serve(g_s), s	17.0	39.6	0.6	0.6	52.0	6.8	25.0	6.1	6.6	4.3	0.4	15.4
Cycle Q Clear(g_c), s	17.0	39.6	0.6	0.6	52.0	6.8	25.0	6.1	6.6	4.3	0.4	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	285	2479	1073	179	2014	700	531	472	438	279	227	398
V/C Ratio(X)	1.16	0.66	0.01	0.08	1.03	0.19	1.10	0.22	0.24	0.24	0.03	0.54
Avail Cap(c_a), veh/h	285	2479	1073	179	2014	700	531	472	438	279	227	398
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	44.2	10.8	23.7	39.0	21.8	43.6	36.9	37.1	46.7	50.1	41.9
Incr Delay (d2), s/veh	104.1	1.4	0.0	0.1	23.6	0.3	69.3	0.2	0.3	0.5	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	18.7	0.3	0.3	28.5	3.0	10.2	3.0	3.0	2.1	0.2	6.9
LnGrp Delay(d),s/veh	153.2	45.6	10.8	23.8	62.6	22.1	112.9	37.2	37.4	47.1	50.2	43.4
LnGrp LOS	F	D	B	C	F	C	F	D	D	D	D	D
Approach Vol, veh/h		1978			2233			795			289	
Approach Delay, s/veh		63.4			59.9			92.8			44.4	
Approach LOS		E			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	40.0	10.0	69.0	30.0	21.0	22.0	57.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	35.0	5.0	64.0	25.0	16.0	17.0	52.0
Max Q Clear Time (g_c+I1), s	6.3	8.6	2.6	41.6	27.0	17.4	19.0	54.0
Green Ext Time (p_c), s	0.0	2.0	0.0	21.3	0.0	0.0	0.0	0.0

Intersection Summary

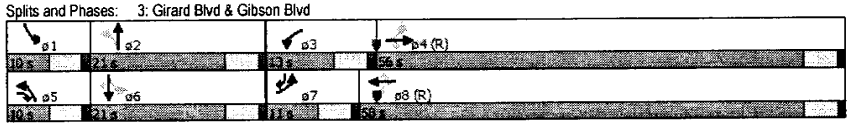
HCM 2010 Ctrl Delay 65.3
HCM 2010 LOS E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	78	2031	19	141	1048	49	11	12	73	36	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	11.0	56.0	10.0	13.0	58.0	58.0	10.0	21.0	10.0	21.0	11.0
Total Split (%)	11.0%	56.0%	10.0%	13.0%	58.0%	58.0%	10.0%	21.0%	10.0%	21.0%	11.0%
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
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
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
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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	None	Min	C-Min	C-Min	None	Min	None	Min	Min
Act Effct Green (s)	66.1	59.1	69.2	72.9	62.6	62.6	11.5	7.5	12.6	9.5	21.4
Actuated g/C Ratio	0.66	0.59	0.69	0.73	0.63	0.63	0.12	0.08	0.13	0.10	0.21
v/c Ratio	0.24	0.76	0.02	0.61	0.37	0.05	0.07	0.37	0.47	0.23	0.18
Control Delay	6.6	18.9	0.1	18.4	10.0	2.0	34.1	14.3	45.4	45.3	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	18.9	0.1	18.4	10.0	2.0	34.1	14.3	45.4	45.3	8.2
LOS	A	B	A	B	A	A	C	B	D	D	A
Approach Delay		18.2			10.6			16.1		31.5	
Approach LOS		B			B			B		C	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.2 — Intersection LOS: B
Intersection Capacity Utilization 70.3% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	2031	19	141	1048	49	11	12	97	73	36	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	184.5
Adj Flow Rate, veh/h	87	2257	21	157	1164	54	12	13	108	81	40	72
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	399	2833	905	222	2856	889	229	169	152	214	252	303
Arrive On Green	0.06	0.56	0.56	0.08	0.75	0.75	0.01	0.10	0.10	0.05	0.14	0.14
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1752	1568	1757	1845	1568
Grp Volume(v), veh/h	87	2257	21	157	1164	54	12	13	108	81	40	72
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1568	1757	1845	1568
Q Serve(g_s), s	1.8	31.6	0.5	3.3	7.3	0.8	0.5	0.6	5.9	3.6	1.7	3.4
Cycle Q Clear(g_c), s	1.8	31.6	0.5	3.3	7.3	0.8	0.5	0.6	5.9	3.6	1.7	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	2833	905	222	2856	889	229	169	152	214	252	303
V/C Ratio(X)	0.22	0.80	0.02	0.71	0.41	0.06	0.05	0.08	0.71	0.38	0.16	0.24
Avail Cap(c_a), veh/h	419	2892	923	273	3006	936	302	316	283	217	332	371
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.1	15.4	8.1	18.6	5.6	4.8	35.3	36.5	38.9	33.3	33.8	30.3
Incr Delay (d2), s/veh	0.3	2.4	0.0	5.9	0.4	0.1	0.1	0.2	6.1	1.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	15.1	0.2	2.5	3.4	0.4	0.3	0.3	2.8	1.8	0.9	1.5
LnGrp Delay(d),s/veh	7.4	17.8	8.1	24.5	6.0	4.9	35.4	36.7	45.0	34.4	34.1	30.7
LnGrp LOS	A	B	A	C	A	A	D	D	D	C	C	C
Approach Vol, veh/h		2365			1375			133			193	
Approach Delay, s/veh		17.4			8.1			43.3			32.9	
Approach LOS		B			A			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	13.6	10.4	66.2	6.3	17.2	10.0	66.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0	8.0	51.0	5.0	16.0	6.0	53.0
Max Q Clear Time (g_c+I1), s	5.6	7.9	5.3	33.6	2.5	5.4	3.8	9.3
Green Ext Time (p_c), s	0.0	0.6	0.1	16.4	0.0	0.8	0.0	38.0

Intersection Summary

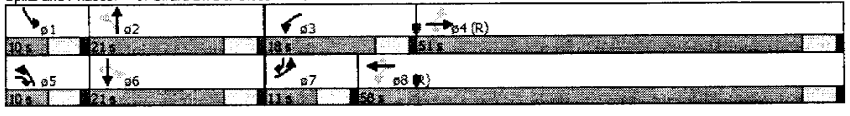
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	78	2079	466	284	1048	49	183	85	112	103	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	11.0	51.0	10.0	18.0	58.0	58.0	10.0	21.0	10.0	21.0	11.0
Total Split (%)	11.0%	51.0%	10.0%	18.0%	58.0%	58.0%	10.0%	21.0%	10.0%	21.0%	11.0%
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
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
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
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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	None	Min	C-Min	C-Min	None	Min	None	Min	Min
Act Effct Green (s)	52.7	46.0	56.0	68.5	56.9	56.9	16.5	11.5	16.5	11.5	23.1
Actuated g/C Ratio	0.53	0.46	0.56	0.68	0.57	0.57	0.16	0.12	0.16	0.12	0.23
v/c Ratio	0.28	1.00	0.51	0.83	0.41	0.06	0.93	0.67	0.77	0.54	0.16
Control Delay	9.5	45.7	6.5	36.3	13.1	1.4	82.7	27.7	64.9	50.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	45.7	6.5	36.3	13.1	1.4	82.7	27.7	64.9	50.6	1.2
LOS	A	D	A	D	B	A	F	C	E	D	A
Approach Delay		37.7			17.5			48.2		44.8	
Approach LOS		D			B			D		D	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 5 (5%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 33.3 — Intersection LOS: C
Intersection Capacity Utilization 88.3% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	2079	466	284	1048	49	183	85	223	112	103	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	184.5
Adj Flow Rate, veh/h	87	2310	518	316	1164	54	203	94	248	124	114	72
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	361	2317	800	301	2719	847	283	280	251	162	295	329
Arrive On Green	0.05	0.46	0.46	0.17	0.72	0.72	0.05	0.16	0.16	0.05	0.16	0.16
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1752	1568	1757	1845	1568
Grp Volume(v), veh/h	87	2310	518	316	1164	54	203	94	248	124	114	72
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1568	1757	1845	1568
Q Serve(g_s), s	2.6	45.8	24.2	13.0	9.4	1.0	5.0	4.8	15.8	5.0	5.5	3.8
Cycle Q Clear(g_c), s	2.6	45.8	24.2	13.0	9.4	1.0	5.0	4.8	15.8	5.0	5.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	2317	800	301	2719	847	283	280	251	162	295	329
V/C Ratio(X)	0.24	1.00	0.65	1.05	0.43	0.06	0.72	0.34	0.99	0.77	0.39	0.22
Avail Cap(c_a), veh/h	379	2317	800	301	2719	847	283	280	251	162	295	329
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	26.9	17.9	30.4	7.8	6.6	38.8	37.3	41.9	36.9	37.6	32.7
Incr Delay (d2), s/veh	0.3	18.0	4.0	66.0	0.5	0.1	8.3	0.7	53.5	19.3	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	24.8	11.3	13.7	4.3	0.5	3.8	2.4	10.5	1.9	2.9	1.7
LnGrp Delay(d),s/veh	13.0	45.0	22.0	96.4	8.3	6.8	47.2	38.0	95.4	56.2	38.4	33.0
LnGrp LOS	B	D	C	F	A	A	D	D	F	E	D	C
Approach Vol, veh/h		2915			1534			545			310	
Approach Delay, s/veh		39.9			26.4			67.5			44.3	
Approach LOS		D			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.0	18.0	51.0	10.0	21.0	10.0	59.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0	13.0	46.0	5.0	16.0	6.0	53.0
Max Q Clear Time (g_c+I1), s	7.0	17.8	15.0	47.8	7.0	7.5	4.6	11.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.9	0.0	38.2

Intersection Summary

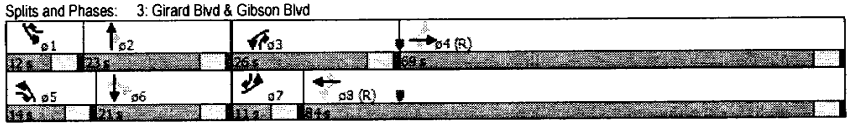
HCM 2010 Ctrl Delay 39.1
HCM 2010 LOS D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	2079	466	284	1048	49	183	85	223	112	103	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8			2	6		6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (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
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	69.0	14.0	26.0	84.0	12.0	14.0	23.0	26.0	12.0	21.0	11.0
Total Split (%)	8.5%	53.1%	10.8%	20.0%	64.6%	9.2%	10.8%	17.7%	20.0%	9.2%	16.2%	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	C-Min	None	Min	C-Min	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	72.6	66.0	80.3	92.9	81.3	93.6	9.3	14.8	41.7	20.1	12.8	24.4
Actuated g/C Ratio	0.56	0.51	0.62	0.71	0.63	0.72	0.07	0.11	0.32	0.15	0.10	0.19
v/c Ratio	0.29	0.90	0.49	0.90	0.37	0.05	0.84	0.24	0.46	0.55	0.63	0.19
Control Delay	10.6	35.6	9.2	49.3	9.3	1.5	87.4	52.9	28.8	54.9	71.1	4.4
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	10.6	35.6	9.2	49.3	9.3	1.5	87.4	52.9	28.8	54.9	71.1	4.4
LOS	B	D	A	D	A	A	F	D	C	D	E	A
Approach Delay		30.2			17.3			54.8			49.1	
Approach LOS		C			B			D			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 129 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 30.1 — Intersection LOS: C
Intersection Capacity Utilization 81.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	2079	466	284	1048	49	183	85	223	112	103	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	87	2310	518	316	1164	54	203	94	248	124	114	72
Adj No. of Lanes	1	3	1	1	3	1	2	2	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	2488	884	339	3083	1045	237	488	466	269	228	257
Arrive On Green	0.04	0.49	0.49	0.16	0.61	0.61	0.07	0.14	0.14	0.05	0.12	0.12
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	3408	3505	1568	1757	1845	1568
Grp Volume(v), veh/h	87	2310	518	316	1164	54	203	94	248	124	114	72
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1704	1752	1568	1757	1845	1568
Q Serve(g_s), s	3.1	55.4	27.8	18.3	15.1	1.5	7.6	3.1	17.1	7.0	7.5	5.2
Cycle Q Clear(g_c), s	3.1	55.4	27.8	18.3	15.1	1.5	7.6	3.1	17.1	7.0	7.5	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	2488	884	339	3083	1045	237	488	466	269	228	257
V/C Ratio(X)	0.25	0.93	0.59	0.93	0.38	0.05	0.86	0.19	0.53	0.46	0.50	0.28
Avail Cap(c_a), veh/h	361	2493	885	347	3083	1045	237	488	466	269	228	257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	30.6	18.4	43.3	12.7	7.5	59.5	49.2	37.9	47.2	52.9	47.4
Incr Delay (d2), s/veh	0.4	7.6	2.8	31.0	0.4	0.1	25.1	0.2	1.2	1.2	1.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	27.4	12.7	14.1	7.0	0.7	4.4	1.5	7.5	0.7	3.9	2.3
LnGrp Delay(d),s/veh	15.1	38.2	21.2	74.3	13.0	7.6	84.6	49.4	39.1	48.4	54.6	48.0
LnGrp LOS	B	D	C	E	B	A	F	D	D	D	D	D
Approach Vol, veh/h		2915			1534			545			310	
Approach Delay, s/veh		34.5			25.4			57.8			50.6	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.0	25.4	69.6	14.0	21.0	10.2	84.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	18.0	21.0	64.0	9.0	16.0	6.0	79.0
Max Q Clear Time (g_c+I1), s	9.0	19.1	20.3	57.4	9.6	9.5	5.1	17.1
Green Ext Time (p_c), s	0.0	0.0	0.1	6.5	0.0	1.3	0.0	54.8

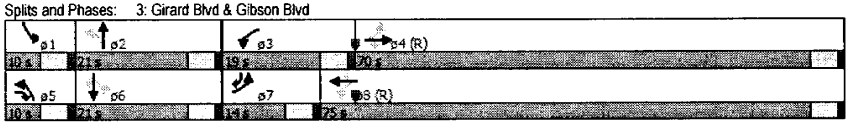
Intersection Summary

HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	111	1523	8	152	2344	141	16	50	71	35	120
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	14.0	70.0	10.0	19.0	75.0	75.0	10.0	21.0	10.0	21.0	14.0
Total Split (%)	11.7%	58.3%	8.3%	15.8%	62.5%	62.5%	8.3%	17.5%	8.3%	17.5%	11.7%
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
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
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
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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	None	Min	C-Min	C-Min	None	Min	None	Min	Min
Act Effct Green (s)	87.4	78.2	88.3	90.5	79.8	79.8	12.1	8.1	13.2	10.1	24.2
Actuated g/C Ratio	0.73	0.65	0.74	0.75	0.66	0.66	0.10	0.07	0.11	0.08	0.20
v/c Ratio	0.62	0.50	0.01	0.58	0.76	0.14	0.11	0.60	0.62	0.25	0.35
Control Delay	35.9	12.7	0.0	17.5	17.1	3.7	44.1	22.6	67.1	55.2	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	12.7	0.0	17.5	17.1	3.7	44.1	22.6	67.1	55.2	22.0
LOS	D	B	A	B	B	A	D	C	E	E	C
Approach Delay		14.2			16.4			24.2		41.3	
Approach LOS		B			B			C		D	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 17.2 Intersection LOS: B
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	111	1523	8	152	2344	141	16	50	150	71	35	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	184.5
Adj Flow Rate, veh/h	121	1655	9	165	2548	153	17	54	163	77	38	130
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	3033	973	281	3086	961	242	214	191	164	273	302
Arrive On Green	0.04	0.60	0.60	0.06	0.61	0.61	0.02	0.12	0.12	0.04	0.15	0.15
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1752	1568	1757	1845	1568
Grp Volume(v), veh/h	121	1655	9	165	2548	153	17	54	163	77	38	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1568	1757	1845	1568
Q Serve(g_s), s	3.0	22.1	0.2	4.0	44.9	4.7	1.0	3.2	11.5	4.3	2.0	8.3
Cycle Q Clear(g_c), s	3.0	22.1	0.2	4.0	44.9	4.7	1.0	3.2	11.5	4.3	2.0	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	3033	973	281	3086	961	242	214	191	164	273	302
V/C Ratio(X)	0.73	0.55	0.01	0.59	0.83	0.16	0.07	0.25	0.85	0.47	0.14	0.43
Avail Cap(c_a), veh/h	226	3033	973	401	3111	969	287	247	221	164	273	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.13	0.13	0.13	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	13.4	8.2	12.2	17.2	9.4	42.3	45.1	48.7	41.8	42.0	40.3
Incr Delay (d2), s/veh	7.7	0.7	0.0	0.3	0.4	0.0	0.1	0.6	23.6	2.1	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.3	0.1	2.2	20.6	2.0	0.5	1.6	6.2	2.2	1.1	3.7
LnGrp Delay(d),s/veh	33.5	14.1	8.2	12.5	17.5	9.5	42.4	45.7	72.3	43.9	42.2	41.3
LnGrp LOS	C	B	A	B	B	A	D	D	E	D	D	D
Approach Vol, veh/h		1785			2866			234			245	
Approach Delay, s/veh		15.4			16.8			64.0			42.3	
Approach LOS		B			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	18.8	11.3	79.9	7.1	21.7	10.0	81.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0	14.0	65.0	5.0	16.0	9.0	70.0
Max Q Clear Time (g_c+I1), s	6.3	13.5	6.0	24.1	3.0	10.3	5.0	46.9
Green Ext Time (p_c), s	0.0	0.3	0.2	39.3	0.0	0.9	0.1	22.5

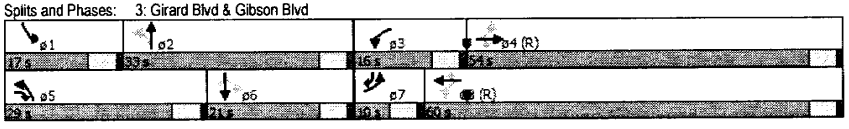
Intersection Summary
HCM 2010 Ctrl Delay 19.7
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	111	1608	203	195	2344	141	544	213	139	113	120
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	8	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	10.0	54.0	29.0	16.0	60.0	60.0	29.0	33.0	17.0	21.0	10.0
Total Split (%)	8.3%	45.0%	24.2%	13.3%	50.0%	50.0%	24.2%	27.5%	14.2%	17.5%	8.3%
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
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
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
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
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	None	Min	C-Min	C-Min	None	Min	None	Min	Min
Act Effct Green (s)	57.6	50.1	79.1	68.0	55.7	55.7	41.8	25.7	24.0	12.8	25.3
Actuated g/C Ratio	0.48	0.42	0.66	0.57	0.46	0.46	0.35	0.21	0.20	0.11	0.21
v/c Ratio	0.71	0.83	0.20	0.84	1.09	0.19	1.30	0.72	0.63	0.62	0.29
Control Delay	45.0	35.8	1.8	54.1	61.1	0.6	183.1	37.1	41.1	64.9	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	35.8	1.8	54.1	61.1	0.6	183.1	37.1	41.1	64.9	5.3
LOS	D	D	A	D	E	A	F	D	D	E	A
Approach Delay		32.7			57.5			110.9		36.8	
Approach LOS		C			E			F		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 118 (98%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.30
Intersection Signal Delay: 57.8 — Intersection LOS: E
Intersection Capacity Utilization 104.2% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	111	1608	203	195	2344	141	544	213	318	139	113	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	190.0	184.5	184.5	184.5
Adj Flow Rate, veh/h	121	1748	221	212	2548	153	591	232	346	151	123	130
Adj No. of Lanes	1	3	1	1	3	1	1	2	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	135	2114	976	236	2336	727	483	412	368	235	227	259
Arrive On Green	0.04	0.42	0.42	0.17	0.93	0.93	0.20	0.23	0.23	0.09	0.12	0.12
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1757	1752	1568	1757	1845	1568
Grp Volume(v), veh/h	121	1748	221	212	2548	153	591	232	346	151	123	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1757	1752	1568	1757	1845	1568
Q Serve(g_s), s	4.7	36.6	7.4	8.2	55.0	1.0	24.0	13.8	25.7	8.8	7.4	9.0
Cycle Q Clear(g_c), s	4.7	36.6	7.4	8.2	55.0	1.0	24.0	13.8	25.7	8.8	7.4	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	2114	976	236	2336	727	483	412	368	235	227	259
V/C Ratio(X)	0.90	0.83	0.23	0.90	1.09	0.21	1.22	0.56	0.94	0.64	0.54	0.50
Avail Cap(c_a), veh/h	135	2114	976	248	2336	727	483	414	370	253	249	278
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	30.6	9.8	23.5	4.3	2.3	37.8	40.0	44.5	40.9	48.9	45.1
Incr Delay (d2), s/veh	48.1	3.9	0.5	30.8	48.7	0.7	117.6	1.7	31.6	4.9	2.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	17.6	3.3	5.9	30.3	0.5	19.9	6.9	14.4	4.6	3.9	4.0
LnGrp Delay(d),s/veh	77.0	34.4	10.4	54.3	53.0	3.0	155.4	41.8	76.1	45.8	50.9	46.6
LnGrp LOS	E	C	B	D	F	A	F	D	E	D	D	D
Approach Vol, veh/h		2090			2913			1169			404	
Approach Delay, s/veh		34.4			50.5			109.4			47.6	
Approach LOS		C			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	32.9	15.2	56.2	29.0	19.6	10.0	61.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	12.0	28.0	11.0	49.0	24.0	16.0	5.0	55.0
Max Q Clear Time (g_c+I1), s	10.8	27.7	10.2	38.6	26.0	11.0	6.7	57.0
Green Ext Time (p_c), s	0.0	0.2	0.1	10.3	0.0	2.1	0.0	0.0

Intersection Summary

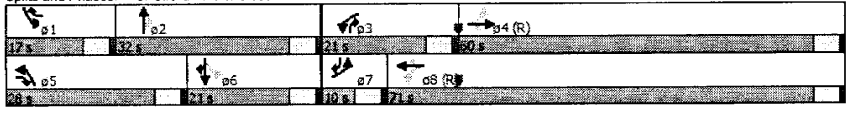
HCM 2010 Ctrl Delay	55.6
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	1608	203	195	2344	141	544	213	329	139	113	120
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	6 7
Permitted Phases	4		4	8		8			2	6		
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
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	
Total Split (s)	10.0	60.0	28.0	21.0	71.0	17.0	28.0	32.0	21.0	17.0	21.0	
Total Split (%)	7.7%	46.2%	21.5%	16.2%	54.6%	13.1%	21.5%	24.6%	16.2%	13.1%	16.2%	
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	
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	
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	
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	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min	
Act Effct Green (s)	66.7	59.1	87.1	77.3	66.1	82.6	23.0	24.9	44.4	24.7	13.3	25.9
Actuated g/C Ratio	0.51	0.45	0.67	0.59	0.51	0.64	0.18	0.19	0.34	0.19	0.10	0.20
v/c Ratio	0.77	0.76	0.20	0.84	0.99	0.15	0.98	0.35	0.62	0.56	0.65	0.31
Control Delay	56.8	33.1	2.5	62.1	27.6	0.3	86.0	46.7	33.4	42.7	72.0	7.3
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	56.8	33.1	2.5	62.1	27.6	0.3	86.0	46.7	33.4	42.7	72.0	7.3
LOS	E	C	A	E	C	A	F	D	C	D	E	A
Approach Delay		31.2			28.7			62.4			40.3	
Approach LOS		C			C			E			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 36.3 Intersection LOS: D
Intersection Capacity Utilization 89.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Girard Blvd & Gibson Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	111	1608	203	195	2344	141	544	213	329	139	113	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5	184.5
Adj Flow Rate, veh/h	121	1748	221	212	2548	153	591	232	358	151	123	130
Adj No. of Lanes	1	3	1	1	3	1	2	2	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	2316	1003	239	2531	930	613	740	460	314	225	252
Arrive On Green	0.04	0.46	0.46	0.16	1.00	1.00	0.18	0.21	0.21	0.09	0.12	0.12
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	3408	3505	1568	1757	1845	1568
Grp Volume(v), veh/h	121	1748	221	212	2548	153	591	232	358	151	123	130
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1704	1752	1568	1757	1845	1568
Q Serve(g_s), s	4.7	36.7	7.6	8.2	0.0	0.0	22.0	7.1	26.7	9.5	8.0	9.7
Cycle Q Clear(g_c), s	4.7	36.7	7.6	8.2	0.0	0.0	22.0	7.1	26.7	9.5	8.0	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	2316	1003	239	2531	930	613	740	460	314	225	252
V/C Ratio(X)	0.79	0.75	0.22	0.89	1.01	0.16	0.96	0.31	0.78	0.48	0.55	0.52
Avail Cap(c_a), veh/h	154	2316	1003	315	2601	952	613	740	460	320	231	258
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	28.5	9.6	24.2	0.0	0.0	52.0	42.6	41.4	43.4	52.8	49.1
Incr Delay (d2), s/veh	22.9	2.3	0.5	20.7	19.5	0.4	27.4	0.2	8.3	1.1	2.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	17.5	3.4	5.3	4.6	0.1	12.7	3.5	12.6	4.7	4.3	4.3
LnGrp Delay(d),s/veh	49.5	30.9	10.2	44.9	19.5	0.4	79.4	42.8	49.7	44.5	55.4	50.7
LnGrp LOS	D	C	B	D	F	A	E	D	D	D	E	D
Approach Vol, veh/h		2090			2913			1181			404	
Approach Delay, s/veh		29.8			20.3			63.2			49.8	
Approach LOS		C			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	32.0	15.5	66.0	28.0	20.5	10.0	71.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	12.0	27.0	16.0	55.0	23.0	16.0	5.0	66.0
Max Q Clear Time (g_c+I1), s	11.5	28.7	10.2	38.7	24.0	11.7	6.7	2.0
Green Ext Time (p_c), s	0.0	0.0	0.3	16.1	0.0	1.6	0.0	61.0

Intersection Summary

HCM 2010 Ctrl Delay 32.8
HCM 2010 LOS C

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	1254	33	264	406	0	0	0	2114
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	1000	300	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1334	35	281	432	0	0	0	2249

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	432	0	-	1334	0	0	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	1117	-	0	508	-	-	0	0	0
Stage 1	-	-	0	-	-	-	0	0	0
Stage 2	-	-	0	-	-	-	0	0	0
Platoon blocked, %		-			-	-	-	-	
Mov Cap-1 Maneuver	1117	-	-	508	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.1	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1117	-	508	-	-	-
HCM Lane V/C Ratio	-	-	-	0.553	-	-	-
HCM Control Delay (s)	0	0	-	20.5	-	-	0
HCM Lane LOS	A	A	-	C	-	-	A
HCM 95th %tile Q(veh)	-	0	-	3.3	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	271
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	Free
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	94	94	94
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	288

Major/Minor	Minor2		
Conflicting Flow All	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	0
Stage 1	0	0	0
Stage 2	0	0	0
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	1271	33	288	410	0	0	0	2410
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	1000	300	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1352	35	306	436	0	0	0	2564

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	436	0	-	1352	0	0	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	1113	-	0	500	-	-	0	0	0
Stage 1	-	-	0	-	-	-	0	0	0
Stage 2	-	-	0	-	-	-	0	0	0
Platoon blocked, %		-			-	-	-	-	
Mov Cap-1 Maneuver	1113	-	-	500	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	9.5	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1113	-	500	-	-	-
HCM Lane V/C Ratio	-	-	-	0.613	-	-	-
HCM Control Delay (s)	0	0	-	22.9	-	-	0
HCM Lane LOS	A	A	-	C	-	-	A
HCM 95th %tile Q(veh)	-	0	-	4.1	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	271
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	Free
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	94	94	94
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	288

Major/Minor	Minor2		
Conflicting Flow All	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	0
Stage 1	0	0	0
Stage 2	0	0	0
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	883	31	645	1092	0	0	0	829
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	1000	300	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	901	32	658	1114	0	0	0	846

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1114	0	-	901	0	0	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	617	-	0	744	-	-	0	0	0
Stage 1	-	-	0	-	-	-	0	0	0
Stage 2	-	-	0	-	-	-	0	0	0
Platoon blocked, %		-			-	-		-	
Mov Cap-1 Maneuver	617	-	-	744	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	12.9	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	617	-	744	-	-	-
HCM Lane V/C Ratio	-	-	-	0.885	-	-	-
HCM Control Delay (s)	0	0	-	34.9	-	-	0
HCM Lane LOS	A	A	-	D	-	-	A
HCM 95th %tile Q(veh)	-	0	-	11.2	-	-	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	217
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	Free
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	98	98	98
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	221

Major/Minor	Minor2		
Conflicting Flow All	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	0
Stage 1	0	0	0
Stage 2	0	0	0
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	16.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	888	31	738	1107	0	0	0	946
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	1000	300	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	906	32	753	1130	0	0	0	965

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1130	0	-	906	0	0	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	4.16	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	608	-	0	~ 740	-	-	0	0	0
Stage 1	-	-	0	-	-	-	0	0	0
Stage 2	-	-	0	-	-	-	0	0	0
Platoon blocked, %		-			-	-	-	-	
Mov Cap-1 Maneuver	608	-	-	~ 740	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	24.5	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	608	-	~ 740	-	-	-
HCM Lane V/C Ratio	-	-	-	1.018	-	-	-
HCM Control Delay (s)	0	0	-	61.2	-	-	0
HCM Lane LOS	A	A	-	F	-	-	A
HCM 95th %tile Q(veh)	-	0	-	17.6	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	217
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	Free
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	98	98	98
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	221

Major/Minor	Minor2		
Conflicting Flow All	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	0	0
Stage 1	0	0	0
Stage 2	0	0	0
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0
HCM LOS	A

Minor Lane/Major Mvmt

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱	↰	↑↑↑		↱
Volume (vph)	2259	87	107	1381	0	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		325	550		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5036	1568	1752	5036	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5036	1568	1752	5036	0	1596
Link Speed (mph)	45			45	30	
Link Distance (ft)	689			1989	943	
Travel Time (s)	10.4			30.1	21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2455	95	116	1501	0	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2455	95	116	1501	0	74
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2259	87	107	1381	0	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yeild	-	None	-	None
Storage Length	-	325	550	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2455	95	116	1501	0	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2455	0	3288	1228
Stage 1	-	-	-	-	2455	-
Stage 2	-	-	-	-	833	-
Critical Hdwy	-	-	5.36	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	6.06	-
Follow-up Hdwy	-	-	3.13	-	3.83	3.93
Pot Cap-1 Maneuver	-	-	*494	-	*114	*393
Stage 1	-	-	-	-	*404	-
Stage 2	-	-	-	-	*628	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*494	-	*87	*393
Mov Cap-2 Maneuver	-	-	-	-	*87	-
Stage 1	-	-	-	-	*404	-
Stage 2	-	-	-	-	*481	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	393	-	-	* 494	-
HCM Lane V/C Ratio	0.188	-	-	0.235	-
HCM Control Delay (s)	16.3	-	-	14.5	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.9	-

Notes
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱	↰	↑↑↑		↱
Volume (vph)	1923	152	188	2680	0	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		325	550		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5036	1568	1752	5036	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5036	1568	1752	5036	0	1596
Link Speed (mph)	45			45	30	
Link Distance (ft)	689			1989	943	
Travel Time (s)	10.4			30.1	21.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2003	158	196	2792	0	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2003	158	196	2792	0	145
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1923	152	188	2680	0	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	325	550	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2003	158	196	2792	0	145

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2003	0	3511	1002
Stage 1	-	-	-	-	2003	-
Stage 2	-	-	-	-	1508	-
Critical Hdwy	-	-	5.36	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	6.06	-
Follow-up Hdwy	-	-	3.13	-	3.83	3.93
Pot Cap-1 Maneuver	-	-	*594	-	*47	*473
Stage 1	-	-	-	-	*485	-
Stage 2	-	-	-	-	*302	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*594	-	*31	*473
Mov Cap-2 Maneuver	-	-	-	-	*31	-
Stage 1	-	-	-	-	*485	-
Stage 2	-	-	-	-	*202	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	473	-	-	* 594	-
HCM Lane V/C Ratio	0.306	-	-	0.33	-
HCM Control Delay (s)	15.9	-	-	14	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	1.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	16.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	2857	0	0	0	0	29	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	3039	0	0	0	0	31	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	0	0	-	3039	0	0	3039	3039	-
Stage 1	-	-	-	-	-	-	3039	3039	-
Stage 2	-	-	-	-	-	-	0	0	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.86	6.56	-
Critical Hdwy Stg 1	-	-	-	-	-	-	5.86	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.86	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	-
Pot Cap-1 Maneuver	-	-	0	107	-	0	~ 10	12	0
Stage 1	-	-	0	-	-	0	~ 23	29	0
Stage 2	-	-	0	-	-	0	-	-	0
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	-	-	-	107	-	-	~ 10	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 10	0	-
Stage 1	-	-	-	-	-	-	~ 23	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	$ 1682.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	10	-	-	-	107	-
HCM Lane V/C Ratio	3.085	-	-	-	-	-
HCM Control Delay (s)	$ 1682.6	0	0	-	0	-
HCM Lane LOS	F	A	A	-	A	-
HCM 95th %tile Q(veh)	4.9	-	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	94	94	94
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	0

Major/Minor
Conflicting Flow All
Stage 1
Stage 2
Critical Hdwy
Critical Hdwy Stg 1
Critical Hdwy Stg 2
Follow-up Hdwy
Pot Cap-1 Maneuver
Stage 1
Stage 2
Platoon blocked, %
Mov Cap-1 Maneuver
Mov Cap-2 Maneuver
Stage 1
Stage 2

Approach
HCM Control Delay, s
HCM LOS

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	19

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	2876	0	0	0	0	29	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	3060	0	0	0	0	31	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	0	0	-	3060	0	0	3060	3060	-
Stage 1	-	-	-	-	-	-	3060	3060	-
Stage 2	-	-	-	-	-	-	0	0	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.86	6.56	-
Critical Hdwy Stg 1	-	-	-	-	-	-	5.86	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.86	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	-
Pot Cap-1 Maneuver	-	-	0	105	-	0	~ 9	12	0
Stage 1	-	-	0	-	-	0	~ 22	28	0
Stage 2	-	-	0	-	-	0	-	-	0
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	-	-	-	105	-	-	~ 9	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 9	0	-
Stage 1	-	-	-	-	-	-	~ 22	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	$ 1908.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	9	-	-	-	105	-
HCM Lane V/C Ratio	3.428	-	-	-	-	-
HCM Control Delay (s)	$ 1908.1	0	0	-	0	-
HCM Lane LOS	F	A	A	-	A	-
HCM 95th %tile Q(veh)	5	-	-	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	94	94	94
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	0

Major/Minor	
Conflicting Flow All	
Stage 1	
Stage 2	
Critical Hdwy	
Critical Hdwy Stg 1	
Critical Hdwy Stg 2	
Follow-up Hdwy	
Pot Cap-1 Maneuver	
Stage 1	
Stage 2	
Platoon blocked, %	
Mov Cap-1 Maneuver	
Mov Cap-2 Maneuver	
Stage 1	
Stage 2	

Approach	
HCM Control Delay, s	
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	1362	0	0	0	0	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1602	0	0	0	0	21	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	0	0	-	1602	0	0	1602	1602	-
Stage 1	-	-	-	-	-	-	1602	1602	-
Stage 2	-	-	-	-	-	-	0	0	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.86	6.56	-
Critical Hdwy Stg 1	-	-	-	-	-	-	5.86	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.86	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	-
Pot Cap-1 Maneuver	-	-	0	400	-	0	96	104	0
Stage 1	-	-	0	-	-	0	149	162	0
Stage 2	-	-	0	-	-	0	-	-	0
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	-	-	-	400	-	-	96	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	96	0	-
Stage 1	-	-	-	-	-	-	149	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	52.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	96	-	-	-	400	-
HCM Lane V/C Ratio	0.221	-	-	-	-	-
HCM Control Delay (s)	52.8	0	0	-	0	-
HCM Lane LOS	F	A	A	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	-	0	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	85	85	85
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	0

Major/Minor	
Conflicting Flow All	
Stage 1	
Stage 2	
Critical Hdwy	
Critical Hdwy Stg 1	
Critical Hdwy Stg 2	
Follow-up Hdwy	
Pot Cap-1 Maneuver	
Stage 1	
Stage 2	
Platoon blocked, %	
Mov Cap-1 Maneuver	
Mov Cap-2 Maneuver	
Stage 1	
Stage 2	

Approach	
HCM Control Delay, s	
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	1396	0	0	0	0	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1642	0	0	0	0	21	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	0	0	-	1642	0	0	1642	1642	-
Stage 1	-	-	-	-	-	-	1642	1642	-
Stage 2	-	-	-	-	-	-	0	0	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.86	6.56	-
Critical Hdwy Stg 1	-	-	-	-	-	-	5.86	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.86	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	-
Pot Cap-1 Maneuver	-	-	0	386	-	0	90	98	0
Stage 1	-	-	0	-	-	0	142	155	0
Stage 2	-	-	0	-	-	0	-	-	0
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	-	-	-	386	-	-	90	0	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	90	0	-
Stage 1	-	-	-	-	-	-	142	0	-
Stage 2	-	-	-	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	56.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	90	-	-	-	386	-
HCM Lane V/C Ratio	0.235	-	-	-	-	-
HCM Control Delay (s)	56.9	0	0	-	0	-
HCM Lane LOS	F	A	A	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	-	0	-

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	0	0	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	85	85	85
Heavy Vehicles, %	3	3	3
Mvmt Flow	0	0	0

Major/Minor	
Conflicting Flow All	
Stage 1	
Stage 2	
Critical Hdwy	
Critical Hdwy Stg 1	
Critical Hdwy Stg 2	
Follow-up Hdwy	
Pot Cap-1 Maneuver	
Stage 1	
Stage 2	
Platoon blocked, %	
Mov Cap-1 Maneuver	
Mov Cap-2 Maneuver	
Stage 1	
Stage 2	

Approach	
HCM Control Delay, s	
HCM LOS	

Minor Lane/Major Mvmt

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↰	↱		↑		↖	↑	
Volume (vph)	60	2	5	5	22	215	5	148	2	280	473	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt		0.990				0.850		0.999			0.974	
Flt Protected		0.957			0.991			0.998		0.950		
Satd. Flow (prot)	0	1748	0	0	1828	1568	0	1839	0	1752	1797	0
Flt Permitted		0.957			0.991			0.998		0.950		
Satd. Flow (perm)	0	1748	0	0	1828	1568	0	1839	0	1752	1797	0
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		205			346			2424			599	
Travel Time (s)		4.7			7.9			47.2			13.6	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	71	2	6	6	26	253	6	174	2	329	556	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	32	253	0	182	0	329	674	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 59.6% ICU Level of Service B
Analysis Period (min) 15

Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	60	2	5	5	22	215	5	148	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	71	2	6	6	26	253	6	174	2

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1474	1462	615	1465	1520	-	674	0	0
Stage 1	1274	1274	-	187	187	-	-	-	-
Stage 2	200	188	-	1278	1333	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	-	2.227	-	-
Pot Cap-1 Maneuver	104	128	489	106	118	0	912	-	-
Stage 1	204	237	-	812	743	0	-	-	-
Stage 2	800	743	-	203	222	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	73	97	489	84	90	-	912	-	-
Mov Cap-2 Maneuver	154	149	-	128	143	-	-	-	-
Stage 1	203	181	-	806	738	-	-	-	-
Stage 2	767	738	-	151	170	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	46.6	38.1	0.3
HCM LOS	E	E	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	912	-	-	162	140	-	1394	-	-
HCM Lane V/C Ratio	0.006	-	-	0.487	0.227	-	0.236	-	-
HCM Control Delay (s)	9	0	-	46.6	38.1	0	8.4	-	-
HCM Lane LOS	A	A	-	E	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	0.8	-	0.9	-	-

Intersection			
Int Delay, s/veh			

Movement	SBL	SBT	SBR
Vol, veh/h	280	473	100
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	125	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	85	85	85
Heavy Vehicles, %	3	3	3
Mvmt Flow	329	556	118

Major/Minor	Major2		
Conflicting Flow All	176	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.13	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.227	-	-
Pot Cap-1 Maneuver	1394	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1394	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.8
HCM LOS	

Minor Lane/Major Mvmt

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↰	↱		↔			↰	↱
Volume (vph)	60	2	5	5	22	215	5	148	2	280	473	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt		0.990				0.850		0.999				0.850
Flt Protected		0.957			0.991			0.998			0.982	
Satd. Flow (prot)	0	1748	0	0	1828	1568	0	1839	0	0	1811	1568
Flt Permitted		0.957			0.991			0.998			0.982	
Satd. Flow (perm)	0	1748	0	0	1828	1568	0	1839	0	0	1811	1568
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		312			300			582			580	
Travel Time (s)		7.1			6.8			11.3			13.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	71	2	6	6	26	253	6	174	2	329	556	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	32	253	0	182	0	0	885	118
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Roundabout			
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	79	285	182	1003
Demand Flow Rate, veh/h	81	294	187	1034
Vehicles Circulating, veh/h	918	258	414	39
Vehicles Exiting, veh/h	155	343	585	252
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.9	0.5	7.9	20.3
Approach LOS	B	A	A	C

Lane	Left	Left	Bypass	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized			Free			
Lane Util	1.000	1.000		1.000	0.882	0.118
Critical Headway, s	5.193	5.193		5.193	5.193	5.193
Entry Flow, veh/h	81	33	261	187	912	122
Cap Entry Lane, veh/h	451	873	1957	747	1087	1087
Entry HV Adj Factor	0.975	0.976	0.971	0.972	0.971	0.967
Flow Entry, veh/h	79	32	253	182	885	118
Cap Entry, veh/h	440	852	1900	726	1055	1051
V/C Ratio	0.180	0.038	0.133	0.250	0.839	0.112
Control Delay, s/veh	10.9	4.6	0.0	7.9	22.4	4.4
LOS	B	A	A	A	C	A
95th %tile Queue, veh	1	0	0	1	10	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↰	↱		↑		↰	↑	
Volume (vph)	108	6	5	5	85	528	5	453	6	203	303	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt		0.994				0.850		0.998			0.998	
Flt Protected		0.957			0.997			0.999		0.950		
Satd. Flow (prot)	0	1755	0	0	1839	1568	0	1839	0	1752	1841	0
Flt Permitted		0.957			0.997			0.999		0.950		
Satd. Flow (perm)	0	1755	0	0	1839	1568	0	1839	0	1752	1841	0
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		241			260			2500			593	
Travel Time (s)		5.5			5.9			48.7			13.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	127	7	6	6	100	621	6	533	7	239	356	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	106	621	0	546	0	239	362	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.8% ICU Level of Service D
Analysis Period (min) 15

Intersection

Int Delay, s/veh 23.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	108	6	5	5	85	528	5	453	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3
Mvmt Flow	127	7	6	6	100	621	6	533	7

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	1435	1389	359	1392	1388	-	362	0	0
Stage 1	837	837	-	548	548	-	-	-	-
Stage 2	598	552	-	844	840	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	-	2.227	-	-
Pot Cap-1 Maneuver	~ 111	142	683	119	142	0	1191	-	-
Stage 1	360	381	-	519	515	0	-	-	-
Stage 2	487	513	-	356	379	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	~ 58	108	683	93	108	-	1191	-	-
Mov Cap-2 Maneuver	~ 117	177	-	193	210	-	-	-	-
Stage 1	357	292	-	515	511	-	-	-	-
Stage 2	389	509	-	264	290	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	191.7	38.7	0.1
HCM LOS	F	E	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	123	209	-	1023	-	-
HCM Lane V/C Ratio	0.005	-	-	1.138	0.507	-	0.233	-	-
HCM Control Delay (s)	8	0	-	191.7	38.7	0	9.6	-	-
HCM Lane LOS	A	A	-	F	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	8.4	2.6	-	0.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

A-94

Intersection	
Int Delay, s/veh	

Movement	SBL	SBT	SBR
Vol, veh/h	203	303	5
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	125	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	85	85	85
Heavy Vehicles, %	3	3	3
Mvmt Flow	239	356	6

Major/Minor	Major2		
Conflicting Flow All	540	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.13	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.227	-	-
Pot Cap-1 Maneuver	1023	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1023	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	3.8
HCM LOS	

Minor Lane/Major Mvmt	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↱		↕			↰	↱
Volume (vph)	108	6	5	1	85	528	5	453	6	203	303	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt		0.994				0.850		0.998				0.850
Flt Protected		0.957						0.999			0.980	
Satd. Flow (prot)	0	1755	0	0	1845	1568	0	1839	0	0	1808	1568
Flt Permitted		0.957						0.999			0.980	
Satd. Flow (perm)	0	1755	0	0	1845	1568	0	1839	0	0	1808	1568
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		312			300			582			580	
Travel Time (s)		7.1			6.8			11.3			13.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	127	7	6	1	100	621	6	533	7	239	356	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	101	621	0	546	0	0	595	6
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Roundabout
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	140	722	546	601
Demand Flow Rate, veh/h	144	744	562	619
Vehicles Circulating, veh/h	614	686	384	110
Vehicles Exiting, veh/h	115	260	374	680
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.1	1.2	20.3	12.1
Approach LOS	A	A	C	B

Lane	Left	Left	Bypass	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized			Free			
Lane Util	1.000	1.000		1.000	0.990	0.010
Critical Headway, s	5.193	5.193		5.193	5.193	5.193
Entry Flow, veh/h	144	104	640	562	613	6
Cap Entry Lane, veh/h	612	569	1957	770	1012	1012
Entry HV Adj Factor	0.971	0.971	0.971	0.972	0.971	1.000
Flow Entry, veh/h	140	101	621	546	595	6
Cap Entry, veh/h	594	553	1900	748	983	1012
V/C Ratio	0.235	0.183	0.327	0.730	0.606	0.006
Control Delay, s/veh	9.1	8.9	0.0	20.3	12.1	3.6
LOS	A	A	A	C	B	A
95th %ile Queue, veh	1	1	1	6	4	0

A-96

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	41	168	1	174	399
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	48	198	1	205	469

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1077	198	0	0	199	0
Stage 1	198	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	241	841	-	-	1367	-
Stage 1	833	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	192	841	-	-	1367	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	322	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	2.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	778	1367	-
HCM Lane V/C Ratio	-	-	0.064	0.15	-
HCM Control Delay (s)	-	-	9.9	8.1	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.5	-

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	159	252	1	52	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	187	296	1	61	301

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	721	297	0	0	298	0
Stage 1	297	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	393	740	-	-	1258	-
Stage 1	752	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	370	740	-	-	1258	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	620	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	735	1258	-
HCM Lane V/C Ratio	-	-	0.256	0.049	-
HCM Control Delay (s)	-	-	11.6	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.2	-

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	27	80	1	116	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	32	94	1	136	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	95	0	0	95	0
Stage 1	95	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	500	959	-	-	1493	-
Stage 1	926	-	-	-	-	-
Stage 2	643	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	450	959	-	-	1493	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1493	-
HCM Lane V/C Ratio	-	-	0.036	0.091	-
HCM Control Delay (s)	-	-	9	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	106	140	1	35	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	125	165	1	41	101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	349	165	0	0	166	0
Stage 1	165	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	646	877	-	-	1406	-
Stage 1	862	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	626	877	-	-	1406	-
Mov Cap-2 Maneuver	626	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	2.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	1406	-
HCM Lane V/C Ratio	-	-	0.144	0.029	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	20	60	1	87	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	24	71	1	102	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	346	71	0	0	72	0
Stage 1	71	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	649	989	-	-	1522	-
Stage 1	949	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	604	989	-	-	1522	-
Mov Cap-2 Maneuver	604	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	960	1522	-
HCM Lane V/C Ratio	-	-	0.026	0.067	-
HCM Control Delay (s)	-	-	8.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	80	60	1	26	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	94	71	1	31	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	203	71	0	0	72	0
Stage 1	71	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	783	989	-	-	1522	-
Stage 1	949	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	767	989	-	-	1522	-
Mov Cap-2 Maneuver	767	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	985	1522	-
HCM Lane V/C Ratio	-	-	0.097	0.02	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Traffic Count Data Sheet

Year Counts Taken: **2014**

E-W Street Gibson Blvd
N-S Street: Louisiana Blvd

Speed Limit (Gibson Blvd)= 40
Speed Limit (Louisiana Blvd)= 35

SIGNALIZED

1/16/14

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~29~~	~~93~~	~~1~~	~~1~~	~~45~~	~~4~~	~~1~~	~~1~~	~~2~~	~~90~~	~~1~~	~~91~~
7:15 AM	7:30 AM	**35**	**99**	**1**	**3**	**43**	**7**	**0**	**0**	**1**	**91**	**5**	**100**
7:30 AM	7:45 AM	**42**	**116**	**1**	**4**	**39**	**6**	**0**	**0**	**4**	**73**	**9**	**112**
7:45 AM	8:00 AM	**38**	**127**	**1**	**2**	**51**	**8**	**0**	**3**	**4**	**59**	**10**	**115**
8:00 AM	8:15 AM	**55**	**121**	**2**	**1**	**41**	**13**	**2**	**1**	**2**	**68**	**15**	**113**
8:15 AM	8:30 AM	~~52~~	~~96~~	~~0~~	~~2~~	~~36~~	~~15~~	~~0~~	~~2~~	~~5~~	~~41~~	~~3~~	~~83~~
8:30 AM	8:45 AM	~~54~~	~~85~~	~~2~~	~~2~~	~~36~~	~~8~~	~~0~~	~~2~~	~~8~~	~~37~~	~~4~~	~~80~~
8:45 AM	9:00 AM	~~55~~	~~97~~	~~0~~	~~5~~	~~58~~	~~17~~	~~1~~	~~2~~	~~8~~	~~40~~	~~5~~	~~68~~
AM Peak Hour Volumes		**170**	**463**	**5**	**10**	**174**	**34**	**2**	**4**	**11**	**291**	**39**	**440**
% of Total Traffic		10.3%	28.2%	0.3%	0.6%	10.6%	2.1%	0.1%	0.2%	0.7%	17.7%	2.4%	0.0%
% Directional			38.8%			13.3%	**Intersection**		1.0%			20.1%	
AM Peak Hour Factor			*0.90*			*0.89*	0.95		*0.61*			*0.98*	

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~75~~	~~39~~	~~0~~	~~6~~	~~133~~	~~36~~	~~5~~	~~9~~	~~13~~	~~16~~	~~7~~	~~57~~
4:15 PM	4:30 PM	**104**	**37**	**1**	**5**	**204**	**60**	**11**	**23**	**26**	**7**	**1**	**46**
4:30 PM	4:45 PM	**91**	**41**	**0**	**4**	**158**	**47**	**3**	**12**	**7**	**15**	**8**	**66**
4:45 PM	5:00 PM	**97**	**42**	**1**	**4**	**182**	**64**	**11**	**15**	**22**	**10**	**5**	**78**
5:00 PM	5:15 PM	**97**	**42**	**0**	**5**	**114**	**43**	**8**	**7**	**7**	**12**	**4**	**76**
5:15 PM	5:30 PM	~~89~~	~~60~~	~~0~~	~~3~~	~~162~~	~~47~~	~~15~~	~~16~~	~~6~~	~~17~~	~~1~~	~~74~~
5:30 PM	5:45 PM	~~82~~	~~32~~	~~0~~	~~4~~	~~154~~	~~53~~	~~11~~	~~13~~	~~4~~	~~19~~	~~4~~	~~57~~
5:45 PM	6:00 PM	~~84~~	~~43~~	~~0~~	~~2~~	~~138~~	~~32~~	~~4~~	~~8~~	~~4~~	~~12~~	~~3~~	~~83~~
PM Peak Hour Volumes		**389**	**162**	**2**	**18**	**658**	**214**	**33**	**57**	**62**	**44**	**18**	**266**
% of Total Traffic		20.2%	8.4%	0.1%	0.9%	34.2%	11.1%	1.7%	3.0%	3.2%	2.3%	0.9%	13.8%
% Directional			28.8%			46.3%	**Intersection**		7.9%			17.1%	
PM Peak Hour Factor			*0.97*			*0.83*	0.91		*0.63*			*0.88*	

Traffic Count Data Sheet

Year Counts Taken: **2013**

E-W Street Gibson Blvd
N-S Street: Carlisle Blvd

Speed Limit (Gibson Blvd)= 40
Speed Limit (Carlisle Blvd)= 35

UNSIGNALIZED

12/12/13

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~13~~	~~319~~	~~80~~	~~21~~	~~156~~	~~6~~	~~3~~	~~0~~	~~2~~	~~14~~	~~23~~	~~18~~
7:15 AM	7:30 AM	**27**	**422**	**88**	**29**	**198**	**9**	**4**	**2**	**0**	**22**	**13**	**22**
7:30 AM	7:45 AM	**21**	**356**	**69**	**31**	**260**	**7**	**6**	**0**	**3**	**23**	**22**	**27**
7:45 AM	8:00 AM	**15**	**329**	**69**	**23**	**257**	**16**	**6**	**0**	**0**	**19**	**18**	**25**
8:00 AM	8:15 AM	**15**	**254**	**55**	**26**	**246**	**11**	**7**	**1**	**0**	**23**	**18**	**23**
8:15 AM	8:30 AM	~~35~~	~~243~~	~~61~~	~~33~~	~~249~~	~~12~~	4	~~1~~	~~2~~	~~12~~	~~18~~	~~41~~
8:30 AM	8:45 AM	~~48~~	~~150~~	~~12~~	~~14~~	~~110~~	~~9~~	2	~~0~~	~~0~~	~~7~~	~~2~~	~~9~~
8:45 AM	9:00 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**78**	**1361**	**281**	**109**	**961**	**43**	**23**	**3**	**3**	**87**	**71**	**97**
% of Total Traffic		2.5%	43.6%	9.0%	3.5%	30.8%	1.4%	0.7%	0.1%	0.1%	2.8%	2.3%	0.0%
% Directional			55.2%			35.7%	**Intersection**		0.9%			5.1%	
AM Peak Hour Factor			*0.80*			*0.93*	**0.93**		*0.81*			*0.89*	

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Carlisle Blvd)			Southbound (Carlisle Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~34~~	~~229~~	~~8~~	~~3~~	~~382~~	~~25~~	~~84~~	~~8~~	~~8~~	~~18~~	~~0~~	~~26~~
4:15 PM	4:30 PM	~~27~~	~~171~~	~~7~~	~~5~~	~~418~~	~~20~~	~~71~~	~~11~~	~~6~~	~~16~~	~~2~~	~~29~~
4:30 PM	4:45 PM	**21**	**213**	**2**	**2**	**471**	**15**	**123**	**29**	**11**	**12**	**1**	**28**
4:45 PM	5:00 PM	**28**	**253**	**2**	**5**	**432**	**39**	**84**	**20**	**8**	**10**	**2**	**27**
5:00 PM	5:15 PM	**34**	**257**	**2**	**5**	**401**	**31**	**61**	**16**	**23**	**21**	**2**	**18**
5:15 PM	5:30 PM	**44**	**249**	**1**	**2**	**443**	**36**	**84**	**14**	**6**	**20**	**1**	**18**
5:30 PM	5:45 PM	~~39~~	~~226~~	~~2~~	~~2~~	~~413~~	~~35~~	~~59~~	~~18~~	~~17~~	~~18~~	~~2~~	~~28~~
5:45 PM	6:00 PM	~~14~~	~~119~~	~~1~~	~~2~~	~~189~~	~~15~~	~~21~~	~~11~~	~~9~~	~~9~~	~~0~~	~~18~~
PM Peak Hour Volumes		**127**	**972**	**7**	**14**	**1747**	**121**	**352**	**79**	**48**	**63**	**6**	**91**
% of Total Traffic		3.5%	26.8%	0.2%	0.4%	48.2%	3.3%	9.7%	2.2%	1.3%	1.7%	0.2%	2.5%
% Directional			30.5%			51.9%	**Intersection**		13.2%			4.4%	
PM Peak Hour Factor			*0.94*			*0.96*	**0.98**		*0.73*			*0.98*	

Traffic Count Data Sheet

Year Counts Taken: **2013**

E-W Street Gibson Blvd
N-S Street: Hickman Ave

Speed Limit (Gibson Blvd)= 40
Speed Limit (Hickman Ave)= 35

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12/19/13

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Hickman Ave)			Southbound (Hickman Ave)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~0~~	~~412~~	~~5~~	~~1~~	~~177~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**0**	**537**	**1**	**1**	**224**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:30 AM	7:45 AM	**0**	**446**	**3**	**1**	**293**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	8:00 AM	**0**	**413**	**3**	**0**	**288**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	8:15 AM	**0**	**324**	**3**	**2**	**276**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	8:30 AM	~~0~~	~~339~~	~~2~~	~~20~~	~~294~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
8:30 AM	8:45 AM	~~0~~	~~210~~	~~3~~	~~3~~	~~121~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
8:45 AM	9:00 AM	~~0~~	~~0~~	~~3~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**0**	**1720**	**10**	**4**	**1081**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Total Traffic		0.0%	61.1%	0.4%	0.1%	38.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Directional			61.5%			38.5%	**Intersection**		0.0%			0.0%	
AM Peak Hour Factor			*0.80*			*0.92*	**0.92**		*#DIV/0!*			*#DIV/0!*	

Due to this being a KAFB contractor gate that closes early, there is no existing PM turning traffic

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Hickman Ave)			Southbound (Hickman Ave)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~0~~	~~271~~	~~0~~	~~0~~	~~492~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
4:15 PM	4:30 PM	~~0~~	~~205~~	~~0~~	~~0~~	~~518~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
4:30 PM	4:45 PM	**0**	**236**	**0**	**0**	**622**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	5:00 PM	**0**	**283**	**0**	**0**	**543**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	5:15 PM	**0**	**293**	**0**	**0**	**480**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	5:30 PM	**0**	**294**	**0**	**0**	**545**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	5:45 PM	~~0~~	~~267~~	~~0~~	~~0~~	~~500~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
5:45 PM	6:00 PM	~~0~~	~~134~~	~~0~~	~~0~~	~~228~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
PM Peak Hour Volumes		**0**	**1106**	**0**	**0**	**2190**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Total Traffic		0.0%	33.6%	0.0%	0.0%	66.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Directional			33.6%			66.4%	**Intersection**		0.0%			0.0%	
PM Peak Hour Factor			*0.94*			*0.88*	**0.96**		*#DIV/0!*			*#DIV/0!*	

Traffic Count Data Sheet

Year Counts Taken: **2013**

E-W Street **Gibson Blvd**
N-S Street: **Girard Blvd**

Speed Limit (Gibson Blvd)= **40**
Speed Limit (Girard Blvd)= **35**

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12/12/13

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~8~~	~~447~~	~~6~~	~~13~~	~~159~~	~~4~~	~~2~~	~~1~~	~~16~~	~~15~~	~~4~~	~~17~~
7:15 AM	7:30 AM	**9**	**455**	**1**	**25**	**173**	**4**	**4**	**1**	**17**	**13**	**7**	**12**
7:30 AM	7:45 AM	**12**	**450**	**5**	**28**	**239**	**9**	**3**	**4**	**21**	**20**	**3**	**26**
7:45 AM	8:00 AM	**21**	**433**	**7**	**42**	**275**	**17**	**0**	**2**	**18**	**16**	**11**	**15**
8:00 AM	8:15 AM	**23**	**359**	**3**	**27**	**217**	**12**	**1**	**2**	**16**	**19**	**13**	**8**
8:15 AM	8:30 AM	~~28~~	~~347~~	~~4~~	~~22~~	~~237~~	~~9~~	~~0~~	~~3~~	~~10~~	~~18~~	~~11~~	~~15~~
8:30 AM	8:45 AM	~~24~~	~~297~~	~~7~~	~~15~~	~~206~~	~~18~~	~~2~~	~~3~~	~~9~~	~~13~~	~~8~~	~~21~~
8:45 AM	9:00 AM	~~20~~	~~222~~	~~1~~	~~10~~	~~134~~	~~13~~	~~1~~	~~6~~	~~7~~	~~14~~	~~7~~	~~9~~
AM Peak Hour Volumes		**65**	**1697**	**16**	**122**	**904**	**42**	**8**	**9**	**72**	**68**	**34**	**61**
% of Total Traffic		2.1%	54.8%	0.5%	3.9%	29.2%	1.4%	0.3%	0.3%	2.3%	2.2%	1.1%	0.0%
% Directional			57.4%			34.5%	**Intersection**		2.9%			3.3%	
AM Peak Hour Factor			*0.95*			*0.80*	0.90		*0.79*			*0.83*	

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~15~~	~~242~~	~~1~~	~~30~~	~~493~~	~~20~~	~~3~~	~~4~~	~~25~~	~~5~~	~~7~~	~~25~~
4:15 PM	4:30 PM	~~25~~	~~211~~	~~5~~	~~34~~	~~557~~	~~19~~	~~3~~	~~4~~	~~25~~	~~13~~	~~8~~	~~22~~
4:30 PM	4:45 PM	**27**	**292**	**3**	**31**	**517**	**21**	**4**	**8**	**25**	**19**	**5**	**26**
4:45 PM	5:00 PM	**21**	**352**	**1**	**33**	**527**	**48**	**3**	**9**	**23**	**15**	**11**	**23**
5:00 PM	5:15 PM	**23**	**297**	**1**	**37**	**481**	**28**	**2**	**10**	**33**	**17**	**5**	**31**
5:15 PM	5:30 PM	**22**	**341**	**2**	**27**	**455**	**22**	**3**	**10**	**30**	**10**	**9**	**23**
5:30 PM	5:45 PM	~~24~~	~~300~~	~~1~~	~~29~~	~~418~~	~~18~~	~~1~~	~~5~~	~~30~~	~~13~~	~~2~~	~~16~~
5:45 PM	6:00 PM	~~6~~	~~129~~	~~0~~	~~16~~	~~146~~	~~7~~	~~0~~	~~4~~	~~30~~	~~7~~	~~1~~	~~9~~
PM Peak Hour Volumes		**93**	**1282**	**7**	**128**	**1980**	**119**	**12**	**37**	**111**	**61**	**30**	**103**
% of Total Traffic		2.3%	32.3%	0.2%	3.2%	50.0%	3.0%	0.3%	0.9%	2.8%	1.5%	0.8%	2.6%
% Directional			34.9%			56.2%	**Intersection**		4.0%			4.9%	
PM Peak Hour Factor			*0.92*			*0.92*	0.93		*0.89*			*0.92*	

A-106

Traffic Count Data Sheet

Year Counts Taken: **2011**

E-W Street **Gibson Blvd**

N-S Street: **Interstate 25**

Speed Limit (Gibson Blvd)= 25 MPH

Speed Limit (Interstate 25)= 35 MPH

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1/26/11

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Interstate 25)			Southbound (Interstate 25)		
		L*	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~41~~	~~147~~	~~0~~	~~21~~	~~103~~	~~0~~	~~7~~	~~0~~	~~93~~	~~374~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**72**	**250**	**5**	**42**	**132**	**128**	**5**	**0**	**124**	**502**	**0**	**63**
7:30 AM	7:45 AM	**64**	**305**	**7**	**65**	**127**	**143**	**8**	**0**	**105**	**523**	**0**	**58**
7:45 AM	8:00 AM	**110**	**295**	**9**	**47**	**142**	**172**	**4**	**0**	**96**	**481**	**0**	**76**
8:00 AM	8:15 AM	**41**	**221**	**8**	**53**	**130**	**180**	**3**	**0**	**85**	**453**	**0**	**56**
8:15 AM	8:30 AM	~~51~~	~~201~~	~~0~~	~~43~~	~~169~~	~~0~~	~~5~~	~~0~~	~~93~~	~~504~~	~~0~~	~~0~~
8:30 AM	8:45 AM	~~66~~	~~178~~	~~0~~	~~59~~	~~118~~	~~0~~	~~6~~	~~0~~	~~98~~	~~504~~	~~0~~	~~0~~
8:45 AM	9:00 AM	~~49~~	~~191~~	~~0~~	~~54~~	~~116~~	~~0~~	~~1~~	~~0~~	~~99~~	~~418~~	~~0~~	~~0~~
AM Peak Hour Volumes		**287**	**1071**	**29**	**207**	**531**	**623**	**20**	**0**	**410**	**1959**	**0**	**253**
% of Total Traffic		5.3%	19.9%	0.5%	3.8%	9.9%	11.6%	0.4%	0.0%	7.6%	36.3%	0.0%	0.0%
% Directional			25.7%			25.3%	**Intersection**		8.0%			36.3%	
AM Peak Hour Factor			*0.84*			*0.94*	**0.94**		*0.83*			*0.95*	

Begin Time	End Time	Eastbound (Gibson Blvd)			Westbound (Gibson Blvd)			Northbound (Interstate 25)			Southbound (Interstate 25)		
		L*	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~63~~	~~154~~	~~0~~	~~110~~	~~238~~	~~0~~	~~3~~	~~0~~	~~54~~	~~189~~	~~0~~	~~0~~
4:15 PM	4:30 PM	~~59~~	~~160~~	~~0~~	~~115~~	~~263~~	~~0~~	~~2~~	~~0~~	~~65~~	~~187~~	~~0~~	~~0~~
4:30 PM	4:45 PM	**63**	**217**	**7**	**113**	**360**	**299**	**2**	**0**	**89**	**160**	**0**	**45**
4:45 PM	5:00 PM	**66**	**177**	**6**	**108**	**337**	**288**	**5**	**0**	**81**	**228**	**0**	**50**
5:00 PM	5:15 PM	**64**	**185**	**8**	**149**	**324**	**310**	**2**	**0**	**63**	**159**	**0**	**41**
5:15 PM	5:30 PM	**53**	**178**	**8**	**123**	**373**	**300**	**3**	**0**	**77**	**187**	**0**	**67**
5:30 PM	5:45 PM	~~43~~	~~156~~	~~0~~	~~124~~	~~259~~	~~0~~	~~3~~	~~0~~	~~79~~	~~179~~	~~0~~	~~0~~
5:45 PM	6:00 PM	~~44~~	~~132~~	~~0~~	~~105~~	~~297~~	~~0~~	~~4~~	~~0~~	~~81~~	~~135~~	~~0~~	~~0~~
PM Peak Hour Volumes		**246**	**757**	**29**	**493**	**1394**	**1197**	**12**	**0**	**310**	**734**	**0**	**203**
% of Total Traffic		4.6%	14.1%	0.5%	9.2%	25.9%	22.3%	0.2%	0.0%	5.8%	13.7%	0.0%	3.8%
% Directional			19.2%			57.4%	**Intersection**		6.0%			17.4%	
PM Peak Hour Factor			*0.90*			*0.97*	**0.98**		*0.88*			*0.84*	

* Eastbound Left designates the eastbound to northbound loop movement.
Southbound Left designates the southbound to eastbound loop movement.

Traffic Count Data Sheet

Year Counts Taken: **2013**

E-W Street **Miles Rd**
N-S Street: **Girard Blvd**

Speed Limit (Miles Rd)= **40**
Speed Limit (Girard Blvd)= **35**

UNSIGNALIZED

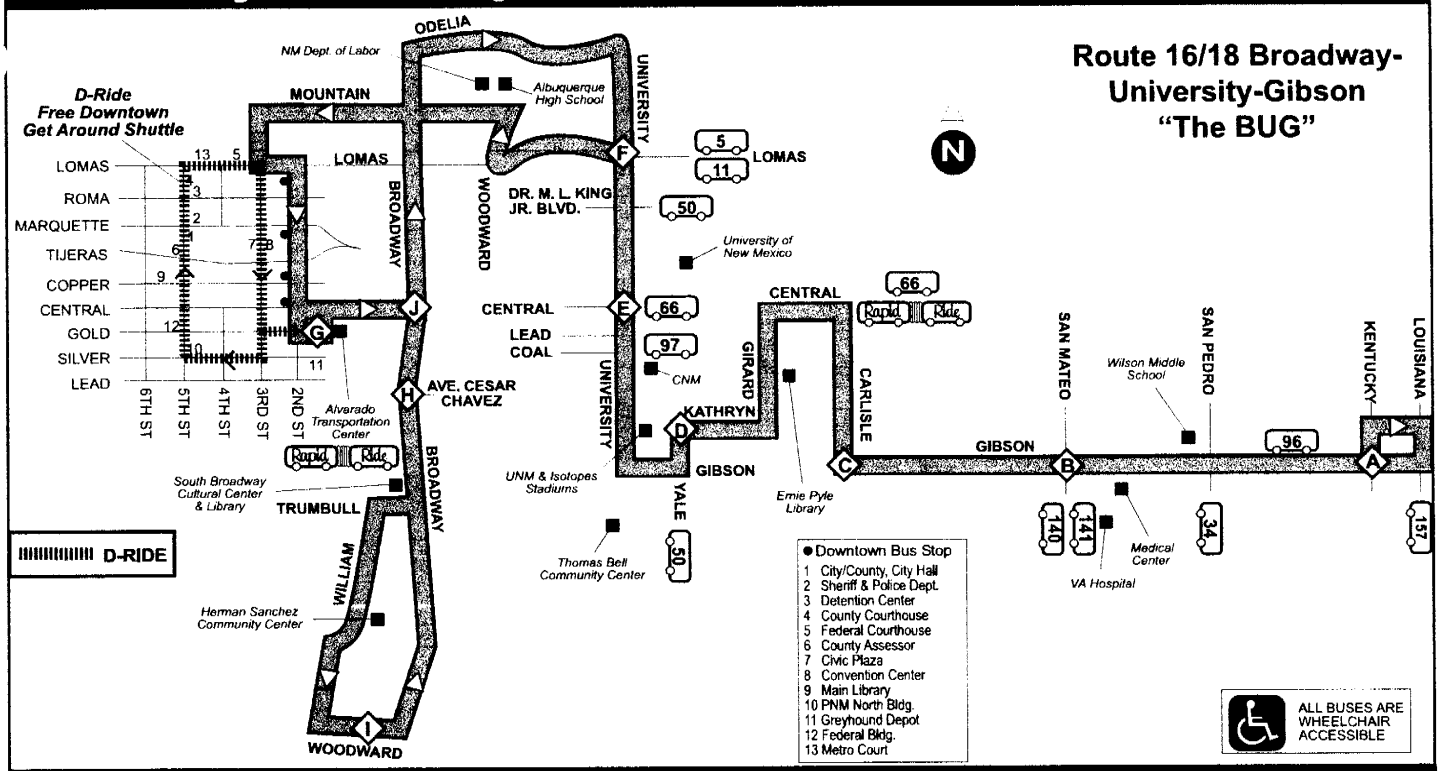
12/12/13

Begin Time	End Time	Eastbound (Miles Rd)			Westbound (Miles Rd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~10~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~10~~	~~0~~	~~0~~	~~12~~	~~12~~
7:15 AM	7:30 AM	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**17**	**17**
7:30 AM	7:45 AM	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**18**	**18**
7:45 AM	8:00 AM	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**30**	**30**
8:00 AM	8:15 AM	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**22**	**22**
8:15 AM	8:30 AM	~~7~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~7~~	~~0~~	~~0~~	~~19~~	~~19~~
8:30 AM	8:45 AM	~~7~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~7~~	~~0~~	~~0~~	~~15~~	~~15~~
8:45 AM	9:00 AM	~~7~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~7~~	~~0~~	~~0~~	~~9~~	~~9~~
AM Peak Hour Volumes		**45**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**0**	**87**	**87**
% of Total Traffic		17.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.0%	0.0%	0.0%	33.0%	0.0%
% Directional			17.0%			0.0%		**Intersection**	17.0%			33.0%	
AM Peak Hour Factor			*0.80*			*#DIV/0!*		**0.83**	*0.80*			*0.73*	

Begin Time	End Time	Eastbound (Miles Rd)			Westbound (Miles Rd)			Northbound (Girard Blvd)			Southbound (Girard Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~4~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~4~~	~~0~~	~~0~~	~~19~~	~~19~~
4:15 PM	4:30 PM	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**24**	**24**
4:30 PM	4:45 PM	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**20**	**20**
4:45 PM	5:00 PM	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**23**	**23**
5:00 PM	5:15 PM	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**22**	**22**
5:15 PM	5:30 PM	~~7~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~7~~	~~0~~	~~0~~	~~19~~	~~19~~
5:30 PM	5:45 PM	~~3~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~3~~	~~0~~	~~0~~	~~16~~	~~16~~
5:45 PM	6:00 PM	~~2~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~2~~	~~0~~	~~0~~	~~9~~	~~9~~
PM Peak Hour Volumes		**22**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**89**	**89**
% of Total Traffic		9.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.9%	0.0%	0.0%	40.1%	40.1%
% Directional			9.9%			0.0%		**Intersection**	9.9%			80.2%	
PM Peak Hour Factor			*0.92*			*#DIV/0!*		**0.96**	*0.92*			*0.93*	

Route / Ruta 16/18 Broadway/University/Gibson

Effective: 12/15/2012



Route 16/18 - Weekday Westbound

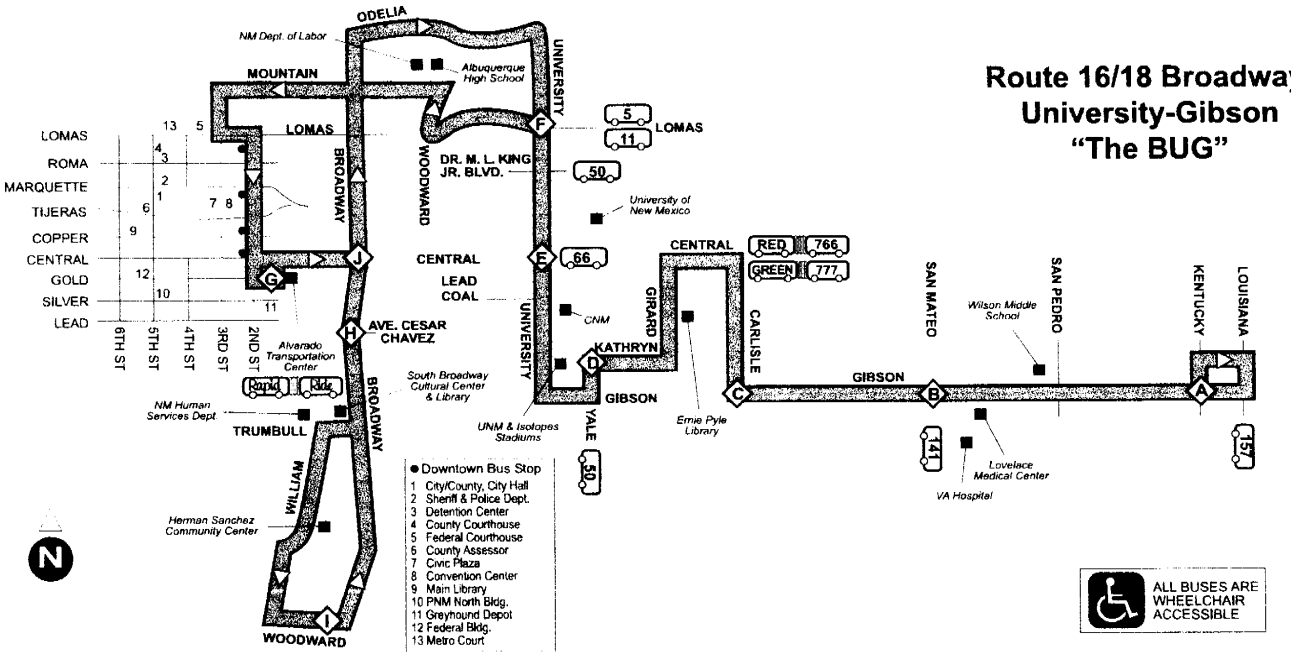
GIBSON & KENTUCKY (A)	GIBSON & SAN MATEO (B)	CARLISLE & GIBSON (C)	YALE & KATHRYN (D)	CENTRAL & UNIVERSITY (E)	UNIVERSITY & LOMAS (F)	ALVARADO TRANSPORTATION CENTRER (G)	BROADWAY & AVE. CESAR CHAVEZ (H)	BROADWAY & WOODWARD (I)
6:22a	6:26a	6:31a	6:45a	6:54a	6:57a	7:09a	7:18a	7:26a
7:07a	7:11a	7:16a	7:30a	7:39a	7:42a	7:54a	8:03a	8:11a
7:55a	7:59a	8:04a	8:18a	8:27a	8:30a	8:42a	8:51a	8:59a
8:45a	8:49a	8:54a	9:08a	9:17a	9:20a	9:32a	9:41a	9:49a
9:33a	9:37a	9:42a	9:56a	10:05a	10:08a	10:20a	10:29a	10:37a
10:23a	10:27a	10:32a	10:46a	10:55a	10:58a	11:10a	11:19a	11:27a
11:12a	11:16a	11:21a	11:35a	11:44a	11:47a	11:59a	12:08p	12:16p
11:57a	12:01p	12:06p	12:20p	12:29p	12:32p	12:44p	12:53p	1:01p
12:44p	12:48p	12:53p	1:07p	1:16p	1:19p	1:31p	1:40p	1:48p
1:38p	1:42p	1:47p	2:01p	2:10p	2:13p	2:25p	2:34p	2:42p
2:25p	2:29p	2:34p	2:48p	2:57p	3:00p	3:12p	3:21p	3:29p
3:15p	3:19p	3:24p	3:38p	3:47p	3:50p	4:02p	4:11p	4:19p
4:04p	4:08p	4:13p	4:27p	4:36p	4:39p	4:51p	5:00p	5:08p
4:50p	4:54p	4:59p	5:13p	5:22p	5:25p	5:37p	5:46p	5:54p
5:41p	5:45p	5:50p	6:04p	6:13p	6:16p	6:28p	6:37p	6:45p

Route 16/18 - Weekday Eastbound

BROADWAY & WOODWARD (I)	BROADWAY & AVENIDA CESAR CHAVEZ (H)	BROADWAY & CENTRAL (J)	UNIVERSITY & LOMAS (F)	CENTRAL & UNIVERSITY (E)	YALE & KATHRYN (D)	GIBSON & CARLISLE (C)	GIBSON & SAN MATEO (B)	GIBSON & KENTUCKY (A)
6:00a	6:06a	6:10a	6:19a	6:22a	6:31a	6:44a	6:49a	6:52a
6:45a	6:51a	6:55a	7:04a	7:07a	7:16a	7:29a	7:34a	7:37a
7:32a	7:38a	7:42a	7:51a	7:54a	8:03a	8:16a	8:21a	8:24a
8:17a	8:23a	8:27a	8:36a	8:39a	8:48a	9:01a	9:06a	9:09a
9:07a	9:13a	9:17a	9:26a	9:29a	9:38a	9:51a	9:56a	9:59a
9:56a	10:02a	10:06a	10:15a	10:18a	10:27a	10:40a	10:45a	10:48a
10:47a	10:53a	10:57a	11:06a	11:09a	11:18a	11:31a	11:36a	11:39a
11:34a	11:40a	11:44a	11:53a	11:56a	12:05p	12:18p	12:23p	12:26p
12:22p	12:28p	12:32p	12:41p	12:44p	12:53p	1:06p	1:11p	1:14p
1:09p	1:15p	1:19p	1:28p	1:31p	1:40p	1:53p	1:58p	2:01p
1:59p	2:05p	2:09p	2:18p	2:21p	2:30p	2:43p	2:48p	2:51p
2:48p	2:54p	2:58p	3:07p	3:10p	3:19p	3:32p	3:37p	3:40p
3:38p	3:44p	3:48p	3:57p	4:00p	4:09p	4:22p	4:27p	4:30p
4:25p	4:31p	4:35p	4:44p	4:47p	4:56p	5:09p	5:14p	5:17p
5:14p	5:20p	5:24p	5:33p	5:36p	5:45p	5:58p	6:03p	6:06p
6:00p	6:06p	6:10p	6:19p	6:22p	6:31p	6:44p	6:49p	6:52p

Route / Ruta 16/18 Broadway/University/Gibson

Effective: 12/15/2012



Route 16/18 - Saturday Westbound

GIBSON & KENTUCKY (A)	GIBSON & SAN MATEO (B)	CARLISLE & GIBSON (C)	YALE & KATHRYN (D)	CENTRAL & UNIVERSITY (E)	UNIVERSITY & LOMAS (F)	ALVARADO TRANSPORTATION CENTRER (G)	BROADWAY & AVE. CESAR CHAVEZ (H)	BROADWAY & WOODWARD (I)
6:25a	6:29a	6:34a	6:48a	6:57a	7:00a	7:12a	7:20a	7:25a
7:30a	7:34a	7:39a	7:53a	8:02a	8:05a	8:17a	8:25a	8:30a
8:35a	8:39a	8:44a	8:58a	9:07a	9:10a	9:22a	9:30a	9:35a
9:40a	9:44a	9:49a	10:03a	10:12a	10:15a	10:27a	10:35a	10:40a
10:45a	10:49a	10:54a	11:08a	11:17a	11:20a	11:32a	11:40a	11:45a
11:40a	11:44a	11:49a	12:03p	12:12p	12:15p	12:27p	12:35p	12:40p
12:25p	12:29p	12:34p	12:48p	12:57p	1:00p	1:12p	1:20p	1:25p
1:10p	1:14p	1:19p	1:33p	1:42p	1:45p	1:57p	2:05p	2:10p
1:55p	1:59p	2:04p	2:18p	2:27p	2:30p	2:42p	2:50p	2:55p
2:40p	2:44p	2:49p	3:03p	3:12p	3:15p	3:27p	3:35p	3:40p
3:25p	3:29p	3:34p	3:48p	3:57p	4:00p	4:12p	4:20p	4:25p
4:10p	4:14p	4:19p	4:33p	4:42p	4:45p	4:57p	5:05p	5:10p
4:55p	4:59p	5:04p	5:18p	5:27p	5:30p	5:42p	5:50p	5:55p

Route 16/18 - Saturday Eastbound

BROADWAY & WOODWARD (I)	BROADWAY & AVENIDA CESAR CHAVEZ (H)	BROADWAY & CENTRAL (J)	UNIVERSITY & LOMAS (F)	CENTRAL & UNIVERSITY (E)	YALE & KATHRYN (D)	GIBSON & CARLISLE (C)	GIBSON & SAN MATEO (B)	GIBSON & KENTUCKY (A)
6:20a	6:26a	6:30a	6:39a	6:42a	6:51a	7:04a	7:09a	7:12a
7:30a	7:36a	7:40a	7:49a	7:52a	8:01a	8:14a	8:19a	8:22a
8:35a	8:41a	8:45a	8:54a	8:57a	9:06a	9:19a	9:24a	9:27a
9:40a	9:46a	9:50a	9:59a	10:02a	10:11a	10:24a	10:29a	10:32a
10:30a	10:36a	10:40a	10:49a	10:52a	11:01a	11:14a	11:19a	11:22a
11:15a	11:21a	11:25a	11:34a	11:37a	11:46a	11:59a	12:04p	12:07p
12:00p	12:06p	12:10p	12:19p	12:22p	12:31p	12:44p	12:49p	12:52p
12:45p	12:51p	12:55p	1:04p	1:07p	1:16p	1:29p	1:34p	1:37p
1:30p	1:36p	1:40p	1:49p	1:52p	2:01p	2:14p	2:19p	2:22p
2:15p	2:21p	2:25p	2:34p	2:37p	2:46p	2:59p	3:04p	3:07p
3:00p	3:06p	3:10p	3:19p	3:22p	3:31p	3:44p	3:49p	3:52p
3:45p	3:51p	3:55p	4:04p	4:07p	4:16p	4:29p	4:34p	4:37p
4:30p	4:36p	4:40p	4:49p	4:52p	5:01p	5:14p	5:19p	5:22p
5:15p	5:21p	5:25p	5:34p	5:37p	5:46p	5:59p	6:04p	6:07p

Route 16/18 - Sunday Westbound

GIBSON & KENTUCKY (A)	GIBSON & SAN MATEO (B)	CARLISLE & GIBSON (C)	YALE & KATHRYN (D)	CENTRAL & UNIVERSITY (E)	UNIVERSITY & LOMAS (F)	ALVARADO TRANSPORTATION CENTRER (G)	BROADWAY & AVE. CESAR CHAVEZ (H)	BROADWAY & WOODWARD (I)
9:00a	9:04a	9:09a	9:23a	9:32a	9:35a	9:47a	9:55a	10:00a
10:05a	10:09a	10:14a	10:28a	10:37a	10:40a	10:52a	11:00a	11:05a
11:10a	11:14a	11:19a	11:33a	11:42a	11:45a	11:57a	12:05p	12:10p
12:15p	12:19p	12:24p	12:38p	12:47p	12:50p	1:02p	1:10p	1:15p
1:20p	1:24p	1:29p	1:43p	1:52p	1:55p	2:07p	2:15p	2:20p
2:25p	2:29p	2:34p	2:48p	2:57p	3:00p	3:12p	3:20p	3:25p
3:30p	3:34p	3:39p	3:53p	4:02p	4:05p	4:17p	4:25p	4:30p

Route 16/18 - Sunday Eastbound

BROADWAY & WOODWARD (I)	BROADWAY & AVENIDA CESAR CHAVEZ (H)	BROADWAY & CENTRAL (J)	UNIVERSITY & LOMAS (F)	CENTRAL & UNIVERSITY (E)	YALE & KATHRYN (D)	GIBSON & CARLISLE (C)	GIBSON & SAN MATEO (B)	GIBSON & KENTUCKY (A)
9:00a	9:06a	9:10a	9:19a	9:22a	9:31a	9:44a	9:49a	9:52a
10:05a	10:11a	10:15a	10:24a	10:27a	10:36a	10:49a	10:54a	10:57a
11:10a	11:16a	11:20a	11:29a	11:32a	11:41a	11:54a	11:59a	12:02p
12:15p	12:21p	12:25p	12:34p	12:37p	12:46p	12:59p	1:04p	1:07p
1:20p	1:26p	1:30p	1:39p	1:42p	1:51p	2:04p	2:09p	2:12p
2:25p	2:31p	2:35p	2:44p	2:47p	2:56p	3:09p	3:14p	3:17p
3:30p	3:36p	3:40p	3:49p	3:52p	4:01p	4:14p	4:19p	4:22p

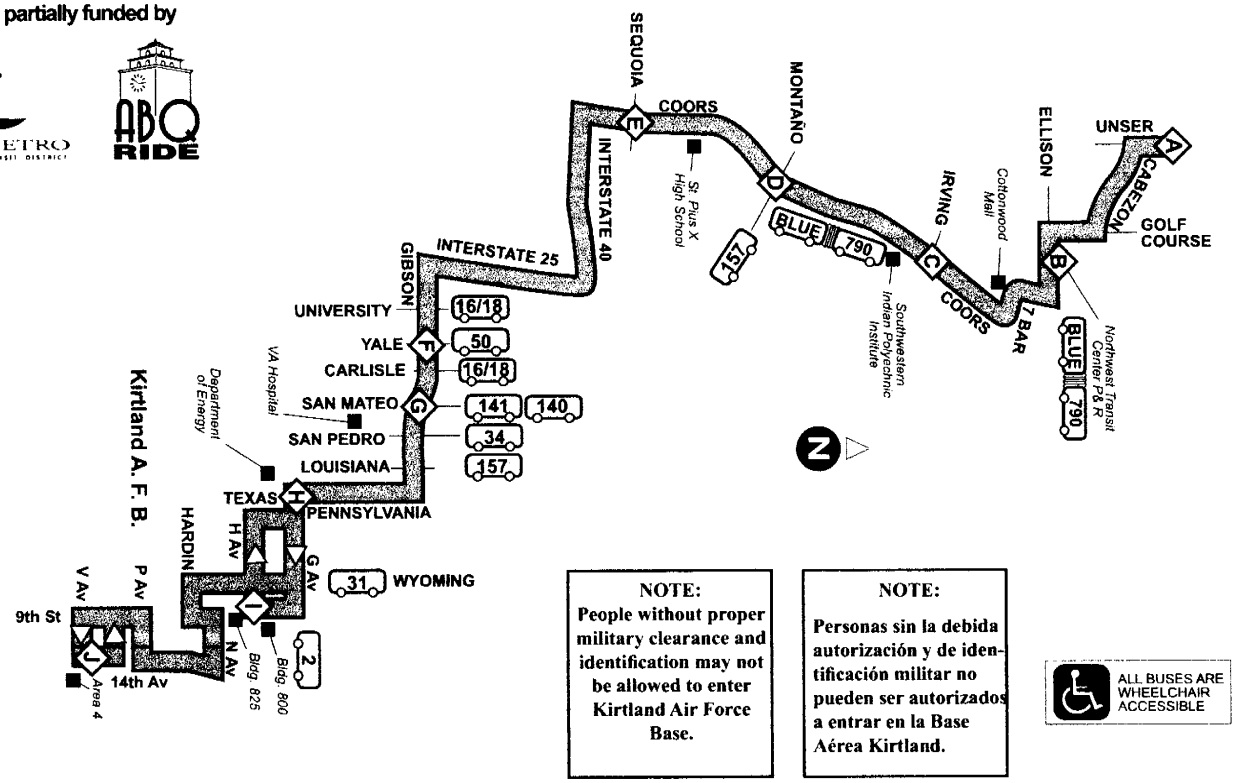
Route / Ruta 96
Crosstown Commuter

Effective: 12/15/2012

Route partially funded by

RIO METRO REGIONAL TRANSIT DISTRICT

ABQ RIDE



NOTE:
People without proper military clearance and identification may not be allowed to enter Kirtland Air Force Base.

NOTE:
Personas sin la debida autorización y de identificación militar no pueden ser autorizados a entrar en la Base Aérea Kirtland.

ALL BUSES ARE WHEELCHAIR ACCESSIBLE

Route 96 - Weekday Southbound

SOUTHERN & UNSER (A)	NORTHWEST TRANSIT CENTER P&R (B)	COORS & IRVING (C)	COORS & MONTAÑO (D)	COORS & SEQUOIA (E)	GIBSON & YALE (F)	GIBSON & SAN MATEO (G)	G STREET D.O.E. BLDG. (H)	BUILDING 800 (I)	AREA 4 (J)
5:16a	5:26a	5:37a	5:43a	5:48a	6:00a	6:04a	6:11a	6:15a	6:27a
5:30a	5:40a	5:51a	5:57a	6:02a	6:14a	6:18a	6:25a	6:29a	6:41a
5:55a	6:07a	6:17a	6:22a	6:27a	6:41a	6:46a	6:53a	6:57a	7:09a
6:25a	6:37a	6:47a	6:52a	6:57a	7:11a	7:16a	7:23a	7:27a	7:39a
6:46a	6:59a	7:11a	7:18a	7:24a	7:44a	7:49a	7:58a	8:01a	8:12a

Route 96 - Weekday Northbound

AREA 4 (J)	BUILDING 800 (I)	G STREET D.O.E. BLDG. (H)	GIBSON & SAN MATEO (G)	GIBSON & YALE (F)	COORS & SEQUOIA (E)	COORS & MONTAÑO (D)	COORS & IRVING (C)	NORTHWEST TRANSIT CENTER P&R (B)	SOUTHERN & UNSER (A)
3:51p	3:58p	4:02p	4:09p	4:16p	4:33p	4:39p	4:45p	4:56p	5:12p
4:02p	4:09p	4:13p	4:20p	4:27p	4:44p	4:50p	4:56p	5:07p	5:23p
4:19p	4:28p	4:32p	4:39p	4:46p	5:03p	5:09p	5:16p	5:27p	5:43p
4:35p	4:44p	4:48p	4:55p	5:02p	5:19p	5:25p	5:32p	5:43p	5:59p
5:15p	5:24p	5:28p	5:35p	5:42p	5:59p	6:05p	6:12p	6:23p	6:39p

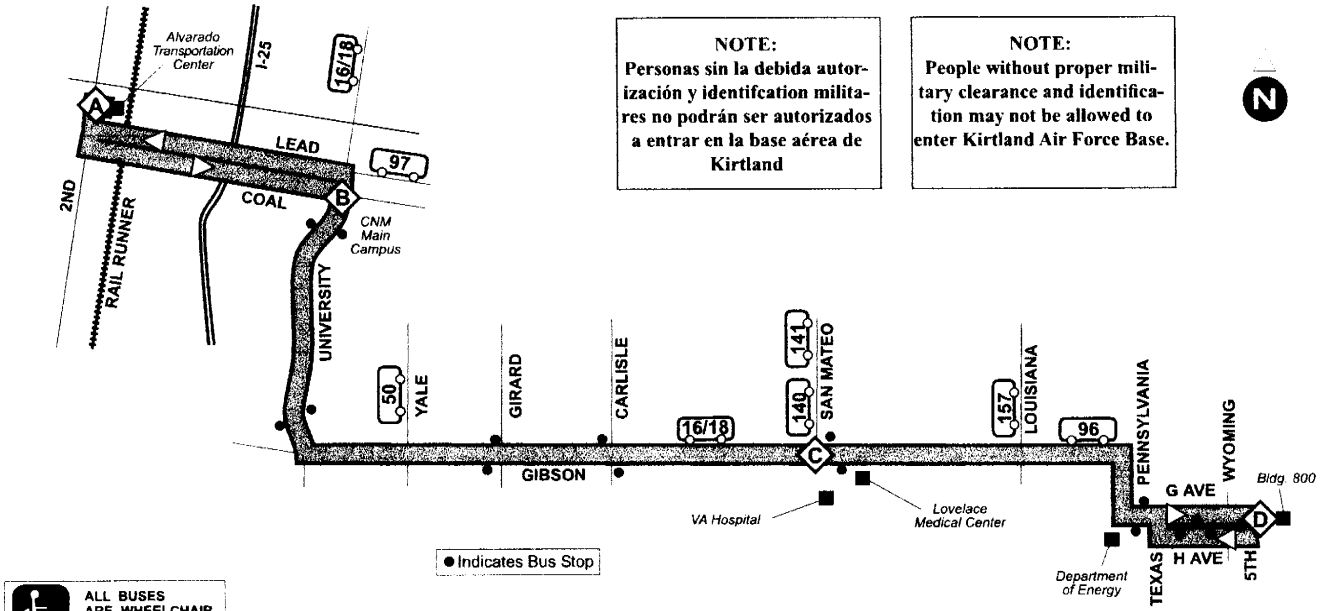
IMPORTANT:

Due to varying military restrictions, access to Kirtland Air Force Base may be changed at any time. If you are traveling to KAFB please call 243-RIDE (243-7433) for current information.

IMPORTANTE:

Debido a diferentes restricciones militares, el acceso a La Base Aerea Kirtland puede cambiar en cualquier momento. Si usted viaja hacia KAFB en autobùs, por favor llame al 243-RIDE (243-7433) para obtener información actualizada.

Route / Ruta 217 Effective: 12/15/2012
Downtown - Kirtland AFB Limited



NOTE:
Personas sin la debida autorización y identifcation militares no podrán ser autorizados a entrar en la base aérea de Kirtland

NOTE:
People without proper military clearance and identification may not be allowed to enter Kirtland Air Force Base.

Route 217 - Weekday Eastbound

ALVARADO TRANSPORTATION CENTER (A)	UNIVERSITY & COAL (B)	GIBSON & SAN MATEO (C)	BUILDING 800 KIRTLAND AFB (D)
** 6:27a	6:33a	6:45a	6:54a
** 7:22a	7:28a	7:40a	7:51a
4:20p	4:26p	4:38p	4:47p

Route 217 - Weekday Westbound

BUILDING 800 KIRTLAND AFB (D)	GIBSON & SAN MATEO (C)	UNIVERSITY & COAL (B)	ALVARADO TRANSPORTATION CENTER (A)
7:01a	7:10a	7:20a	7:28a
3:49p	3:58p	4:08p	4:16p
4:57p	5:06p	5:16p	5:24p

** For these trips the bus will wait at the ATC for passengers to transfer from the NM Rail Runner Express.

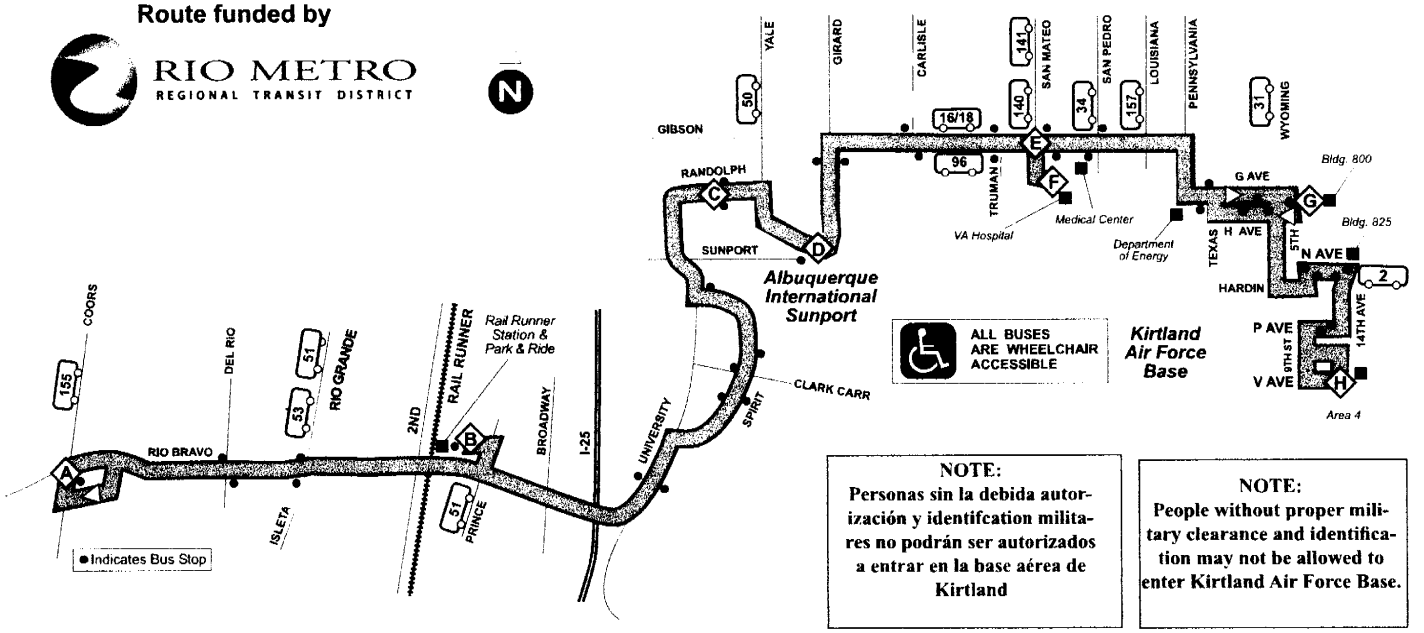
** Para estos viajes el camión esperará en el ATC para pasajeros que quiren transferir desde NM Rail Runner Express (tren).

Route / Ruta 222
Rio Bravo - Sunport - Kirtland

Effective: 12/15/2012

Route funded by

RIO METRO
REGIONAL TRANSIT DISTRICT



NOTE:
Personas sin la debida autorización y identifcation militares no podrán ser autorizados a entrar en la base aérea de Kirtland

NOTE:
People without proper military clearance and identification may not be allowed to enter Kirtland Air Force Base.

Route 222 - Weekday Eastbound

COORS & RIO BRAVO (A)	RAIL RUNNER STATION ARRIVE (B)	RAIL RUNNER STATION DEPART (B)	RANDOLPH & BUENA VISTA (C)	AIRPORT (D)	GIBSON & SAN MATEO (E)	V.A. HOSPITAL (F)	BUILDING 800 (G)	AREA 4 (H)	
.....	.....	6:11a	.....	6:23a	.....	6:30a	.....	.....	*VA*
5:53a	6:05a	6:11a	6:20a	.....	.....	.....	6:35a	6:43a	*KAFB*
.....	.....	7:07a	7:16a	.....	.....	.....	7:33a	7:44a	*KAFB*
6:49a	7:01a	7:07a	.....	7:19a	.....	7:26a	.....	.....	*VA*
2:28p	2:40p	2:46p	2:58p	3:03p	.....	3:10p	.....	.....	*VA*
5:40p	5:52p	5:58p	6:08p	6:13p	6:20p	.....	6:29p	.....	*KAFB*

Be sure to board the bus which will stop where you need to get off!

VA: These buses serve the stops on:
- University
- Spirit Dr
- Airport
- Girard
- Gibson & Carlisle
- Gibson & Truman
- San Mateo & Gibson and
- ends at the VA Medical Center (San Mateo side).

They do not stop on Randolph Rd. or Kirtland Air Force Base.

KAFB: These buses serve only the stops on:
- Randolph Rd.
- Gibson & Valencia and
- Kirtland Air Force Base.

Route 222 - Weekday Westbound

AREA 4 (H)	BUILDING 800 (G)	GIBSON & SAN MATEO (E)	V.A. HOSPITAL (F)	AIRPORT (D)	RANDOLPH & BUENA VISTA (C)	RAIL RUNNER STATION ARRIVE (B)	RAIL RUNNER STATION DEPART (B)	COORS & RIO BRAVO (A)	
.....	6:52a	7:01a	.....	7:10a	7:13a	7:26a	7:26a	7:38a	*KAFB*
.....	.....	.....	2:10p	2:21p	2:24p	2:40p	2:46p	2:58p	*VA*
3:56p	4:04p	.....	.....	.....	4:16p	4:32p	4:39p	4:51p	*KAFB*
.....	.....	.....	4:05p	4:16p	.....	4:32p	.....	.....	*VA*
5:03p	5:21p	.....	.....	.....	5:33p	5:51p	5:58p	6:11p	*KAFB*
.....	.....	.....	5:22p	5:33p	.....	5:51p	.....	.....	*VA*

As in the AM peak, two buses meet the PM peak trains:

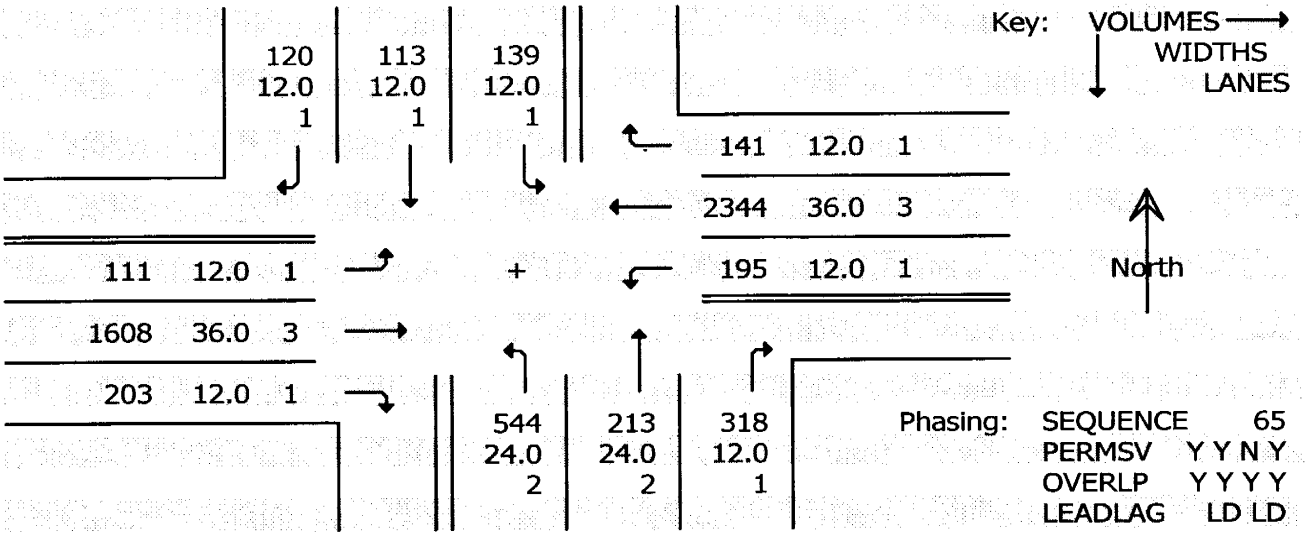
VA: These buses serve stops at:
- VA Medical Center (San Mateo side)
- For service from Gibson & San Mateo, use stop at VA or Truman
- Gibson & Truman
- Gibson & Carlisle
- Girard
- Airport
- Spirit Dr. and
- University.

They do not stop on Randolph Rd.

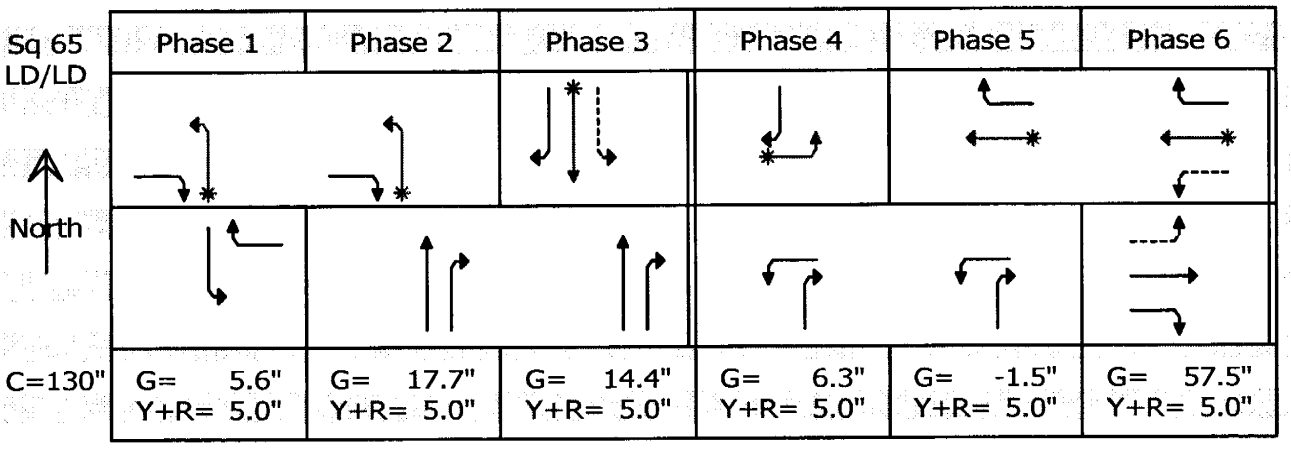
KAFB: These buses serve only the stops on:
- Kirtland Air Force Base
- Gibson & San Pedro and
- Randolph Rd.

TEAPAC[Ver 8.61.01] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

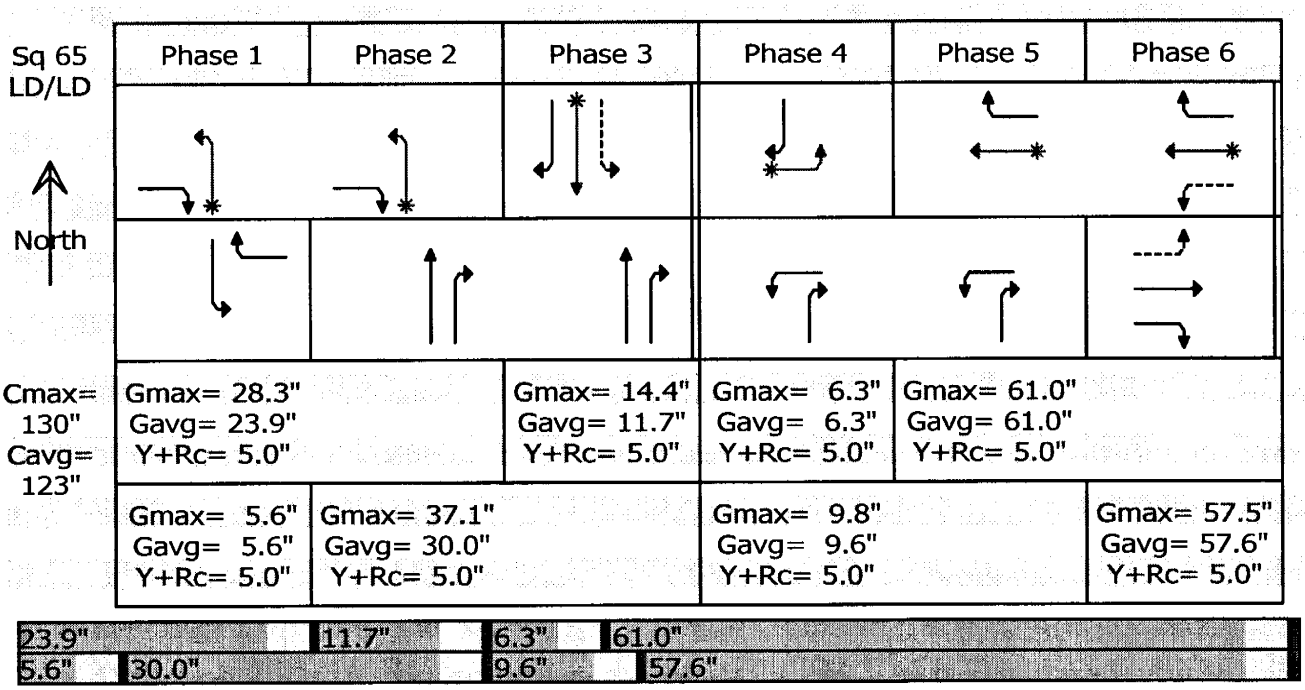


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



TEAPAC[Ver 8.61.01] - Capacity Analysis Summary (HCM 2010)

Intersection Averages for Int # 1 -
V/C 0.803 (Critical V/C 0.950) Control Delay 43.9 Level of Service D+



Lane Group	Width/ Lanes	g/C Max	g/C Avg	SatFlo	Capcty	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								55.7	E+	
RT	12/1	0.031	0.095	1568	229	130	0.567	49.7	D	159 ft
TH	12/1	0.111	0.095	1845	176	123	0.701	58.7	*E+	164 ft
LT	12/1	0.043	0.046	1757	217	151	0.694	58.5	E+	197 ft
NB Approach								48.1	D	
RT	12/1+			1568	506	172	0.684	37.9	D+	334 ft
RT+TH	24/2-	0.285	0.244	3512	857	406	0.271	37.7	D+	128 ft
LT	24/2	0.217	0.194	3412	664	591	0.890	58.2	*E+	349 ft
WB Approach								52.6	D	
RT	12/1	0.031	0.496	1568	850	153	0.180	14.3	B+	99 ft
TH	36/3	0.469	0.496	5025	2495	2548	1.021	54.5	*F	931 ft
LT	12/1	0.076	0.078	1757	237	212	0.894	56.4	E+	202 ft
EB Approach								27.2	C+	
RT	12/1	0.031	0.468	1568	1040	221	0.212	8.1	A	101 ft
TH	36/3	0.442	0.468	5025	2356	1748	0.742	27.7	C	474 ft
LT	12/1	0.049	0.051	1757	148	121	0.817	55.5	*E+	127 ft

TEAPAC[Ver 8.61.01] - HCM2010 Summary Worksheet

Equil Cycle 123.	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
HCM Nema #	5	2	12	1	6	16	3	8	18	7	4	14
Volume, veh/h	121	1748	221	212	2548	153	591	232	346	151	123	130
Adj SatFlow	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Capacity, veh/h	148	2356	1040	237	2495	850	664	857	506	217	176	229
Prop Arr Green	.051	.469	.469	.079	.497	.497	.195	.244	.244	.046	.095	.095
App Vol, veh/h	2090.0			2913.0			1169.0			404.0		
App Del, s/veh	27.2			52.6			48.1			55.7		
Timer #	1	2		3	4		5	6		7	8	
Case No	1.	3.		2.	3.		1.	3.		1.	3.	
G+Y+Rc, s	14.65	62.61		28.90	16.69		11.26	66.00		10.62	34.97	
Y+Rc, s	5.00	5.00		5.00	5.00		5.00	5.00		5.00	5.00	
MAH, s	3.76	3.70		3.76	3.84		3.76	3.69		3.76	3.87	
LT Movement Data												
Assigned Mvmnt	1	0		3	0		5	0		7	0	
SatFlow, veh/h	1757.	0.		3412.	0.		1757.	0.		1757.	0.	
TH Movement Data												
Assigned Mvmnt	0	2		0	4		0	6		0	8	
SatFlow, veh/h	0.	5025.		0.	1845.		0.	5025.		0.	3512.	
RT Movement Data												
Assigned Mvmnt	0	12		0	14		0	16		0	18	
SatFlow, veh/h	0.	1568.		0.	1568.		0.	1568.		0.	1568.	
LT Lane Group Data												
Grp Volume, v/h	212.0	0.0		591.0	0.0		121.0	0.0		151.0	0.0	
Grp SatFlo, v/h	1757.	0.		1706.	0.		1757.	0.		1757.	0.	
g_s, s	7.643	0.000		20.732	0.000		4.363	0.000		5.622	0.000	
Unif d1, s/veh	25.860	0.000		48.199	0.000		28.713	0.000		50.702	0.000	
Inc d2, s/veh	30.547	0.000		9.987	0.000		26.768	0.000		7.794	0.000	
D3 d3, s/veh	0.000	0.000		0.000	0.000		0.000	0.000		0.000	0.000	
TH Lane Group Data												
Grp Volume, v/h	0.0	1748.0		0.0	123.0		0.0	2548.0		0.0	232.0	
Grp SatFlo, v/h	0.	1675.		0.	1845.		0.	1675.		0.	1756.	
g_s, s	0.000	34.803		0.000	7.941		0.000	60.997		0.000	6.569	
Unif d1, s/veh	0.000	26.565		0.000	53.881		0.000	30.927		0.000	37.593	
Inc d2, s/veh	0.000	1.141		0.000	4.776		0.000	23.616		0.000	0.063	
D3 d3, s/veh	0.000	0.000		0.000	0.000		0.000	0.000		0.000	0.000	
RT Lane Group Data												
Grp Volume, v/h	0.0	221.0		0.0	130.0		0.0	153.0		0.0	346.0	
Grp SatFlo, v/h	0.	1568.		0.	1568.		0.	1568.		0.	1568.	
g_s, s	0.000	6.783		0.000	9.483		0.000	6.080		0.000	23.567	
Unif d1, s/veh	0.000	8.098		0.000	48.832		0.000	14.261		0.000	36.177	
Inc d2, s/veh	0.000	0.037		0.000	0.823		0.000	0.037		0.000	1.738	
D3 d3, s/veh	0.000	0.000		0.000	0.000		0.000	0.000		0.000	0.000	