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Gibson Blvd. / University Blvd. Restaurants
(SE Corner)

Access Justification Study

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FINAL

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Introduction

The purpose of this study is to evaluate the access to the proposed commercial development at the southeast corner of Gibson Blvd. / University Blvd. and demonstrate the benefit, if any, to permitting a right-in, right-out, left-in only at Walker Rd. on Unser Blvd. The intersection of Gibson Blvd. / Walker Rd. is currently a right-in, right-out only unsignalized driveway. This report is to be considered as a companion report to the Traffic Impact Analysis for the proposed Gibson / University Restaurants at the southeast corner of Gibson Blvd. / University Blvd. This study is for review and approval by the City of Albuquerque and the Mid-Region Council of Governments' Roadway Access Committee (R.A.C.) and Transportation Coordinating Committee (T.C.C.). This is a companion report to the Gibson / University Traffic Impact Study, dated December 10, 2015.

Study Procedures

The evaluation of the alternative access scenarios for the project, considers the signalized intersection of Gibson Blvd. / University Blvd. and the unsignalized intersection of Gibson Blvd. / Walker Rd. In addition, the unsignalized driveway, Driveway "A" / University Blvd. was analyzed.

It was assumed in this analysis that the existing intersection / driveway on Gibson Blvd. would be a right-in, right-out only unsignalized driveway. The alternative access scenarios evaluated in this report are:

1) Case "N" – no left-in access on Gibson Blvd. at Walker Rd.
2) Case "Y" – a right-in, right-out, left-in access on Gibson Blvd. at Walker Rd.

The intersections impacted were evaluated to estimate level-of-service, delay, and 95th percentile queue length for each intersection and each movement associated with the two Cases evaluated.

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections utilized in the Synchro (Version 8, Build 806, Rev. 61) Transportation System analysis software program as required by the New Mexico Department of Transportation and other local governments.

Intersections targeted for analysis in this study include Gibson Blvd. / University Blvd., Gibson Blvd. / Walker Rd. and Driveway "A" / University Blvd.

The results of the analyses of Case "Y" and Case "N" were then compared to determine the benefits, if any, of one Case over the other.

Description of Proposed Development

The subject area of land targeted for the site development plan totals approximately 2.5 acres. The proposed conceptual site development plan consists of the following approximate land uses:

A 6,100 S.F. High Turnover Sit-down Restaurant (Chili's)
A 4,400 S.F. Fast Food Restaurant w/ Drive-thru Window (TBD)
A 4,530 S.F. Fast Food Restaurant w/ Drive-thru Window (Chick Fil-A)

See the conceptual site development plan on Page A-3 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 (1) primary full access driveway access point at Driveway "A" / University Blvd. and an existing right-in, right-out only driveway at Gibson Blvd. / Walker Rd.

If approved by the Transportation Coordinating Committee, access to this project will be via the full access driveway at Walker Rd. / University Blvd. and via a right-in, right-out, left-in only unsignalized driveway at Gibson Blvd. / Walker Rd.

Trip Generation Rates

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-3 in the Appendix of this report. A 30% adjustment was made for Pass-by Trips in this study.

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

Gibson Blvd. / University Blvd. Development

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

COMMENT	USE (ITE CODE) DESCRIPTION	Units	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						
Chick Fil-A	Fast Food Restaurant w/ Drive-Thru Window (934)	4.53	2,245	105	101	105	101
TBD	Fast Food Restaurant w/ Drive-Thru Window (934)	4.40	2,180	102	98	75	69
Chiles	High Turnover (Sit-Down) Restaurant (932)	6.10	776	36	30	36	24
	Subtotal (Unadjusted Trips)		**5,201**	**243**	**229**	**216**	**194**
	Pass-By Trips	30%		*-73*	*-69*	*-65*	*-58*
	Total Primary Trips			**170**	**160**	**151**	**136**

NOTE: Chick Fil-A Trips Adjusted for Local Data
COMMENT: Chick Fil-A Local Trip Data indicates that it will generate about 200+ Entering Trips / 200+ Exiting Trips during Noon Hour

Note that the above trip generation rates adjust for Pass-by Trips. See Appendix Pages A-7 thru A-9 for Individual Trip Generation Worksheets.

Trip Distribution / Trip Assignments

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Commercial Land Uses

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2017 projected population of Data Analysis Subzones within a two mile radius of the proposed development. Population data for the years 2015 and 2025 were taken from the 2035 Socioeconomic Forecasts by Data Analysis Subzones supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2015 and 2025 was interpolated linearly to obtain 2017 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 are shown in the Appendix on Pages A-10 thru A-13.

Trip Assignment

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to

the projected trips to determine individual traffic movements. Percentage trip assignments are shown in the Turning Movements worksheets on Appendix Pages A-14 thru A-18.

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, Appendix Pages A-82 thru A-83. This study will determine the historic growth rate for each of the three or four approaches to each intersection being analyzed.

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 grow the existing volumes to the projected 2035 volumes shown at the bottom of the individual intersection spreadsheet in the Turning Movements pages. 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, Appendix Pages A-19 thru A-46.

Projected Peak Hour Turning Movements for 2017 and 2035 Buildout

The calculated annual growth rates were applied to the most recent peak hour traffic count volumes. Then the previous development volumes of the UNM Gibson Commercial Development were added to the intersection of Gibson Blvd. / University Blvd. The sums of the existing volumes plus growth constitute the 2017 and 2035 NO BUILD volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed development were added to obtain the 2017 and 2035 BUILD Volumes utilized for the 2017 and 2035 BUILD Condition analyses. See Appendix Pages A-19 thru A-46 for further information regarding the 2017 and 2035 turning movement volumes.

Case "Y" and Case "N" Analyses

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by Synchro, Version 8 (Build 806, Rev. 61) computer modeling software which approximates the 2010 Highway Capacity Manual methodology. The average control delay is calculated for each intersection and for each lane group of each leg of the intersection. The control delay then determines the level-of-service based on the following tables:

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.

Additionally, calculated 95th percentile queue lengths at signalized intersections are based on Poisson's arrival equations. The 95th percentile queue lengths at unsignalized intersections are those reported in the Synchro HCM Unsignalized Intersection Analysis reports.

Following is a summary of the results of the Synchro Analysis for each of the intersections targeted for evaluation in this report:

Intersection #1 – Gibson Blvd. / University Blvd. - Pages A-47 thru A-58

The following table provides a summary of the Levels-of-Service / delays associated with the 2017 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 1 - GIBSON BLVD. / UNIVERSITY BLVD.

		2017 AM Peak Hour BUILD							2017 PM Peak Hour BUILD						
		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		Case "Y" BUILD			(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		Case "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	A - 9.9	1	B - 11.2	1	B - 11.0	L	1	C - 23.5	1	C - 26.7	1	C - 27.1
	T	3	B - 18.3	3	C - 22.8	3	C - 21.5	T	3	B - 12.0	3	B - 14.8	3	B - 13.8
	R	1	A - 9.2	1	B - 10.7	1	B - 10.5	R	1	A - 9.5	1	B - 12.1	1	B - 11.3
WB	L	1	B - 12.0	1	B - 16.5	1	B - 13.6	L	1	A - 8.5	1	B - 12.0	1	A - 10.0
	T	3	B - 12.4	3	B - 14.1	3	B - 13.8	T	3	C - 21.4	3	C - 27.7	3	C - 26.6
	R	1	B - 10.4	1	B - 11.9	1	B - 11.6	R	1	B - 10.8	1	B - 12.6	1	B - 12.5
NB	L	1	C - 22.3	1	C - 23.9	1	C - 24.5	L	1	C - 26.8	1	C - 27.8	1	C - 28.4
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	C - 21.2	>	C - 20.6	>	C - 21.1	R	>	C - 25.2	>	C - 23.4	>	C - 23.8
SB	L	1	C - 27.4	1	C - 28.8	1	C - 30.1	L	1	D - 40.5	1	D - 38.1	1	D - 39.3
	T	1	C - 20.4	1	B - 19.7	1	C - 20.2	T	1	C - 24.2	1	C - 22.4	1	C - 22.8
	R	1	B - 17.0	1	B - 15.8	1	B - 16.3	R	1	C - 22.4	1	C - 20.1	1	C - 20.5
Intersection:		***B - 16.5***		***B - 19.4***		***B - 18.9***			***B - 19.4***		***C - 23.1***		***C - 22.6***	

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

The 2017 analysis demonstrates that Case "Y" reduces the delay by about 0.5 seconds during the AM Peak Hour and by about 0.5 seconds during the PM Peak Hour at the intersection of Gibson Blvd. / University Blvd. To some degree, the average delay at the intersection is impacted by allowing left-in movements at Walker Rd. at Gibson Blvd. since allowing the left turns in off of Gibson Blvd. takes the left turns out of the intersection of Gibson Blvd. / University Blvd. By allowing the new left-in movement at Walker Rd. at Gibson Blvd., the total volume of traffic at Gibson Blvd. / University Blvd. is decreased slightly. More specifically, the 2017 AM Peak Hour westbound left turn volume at Gibson Blvd. / University will be reduced from 116 vehicles per hour to 26 vehicles per hour and the 2017 PM Peak Hour westbound left turn volume at Gibson Blvd. / University Blvd. will be reduced from 173 vehicles per hour to 74 vehicles per hour by permitting the westbound left turn movement to occur at Walker Rd. As a result, less green time will be required to accommodate the westbound left turn movement on Gibson Blvd. at University Blvd., thus allowing more green time on Gibson Blvd. for thru movements. Philosophically, this should improve the operation of the signalized intersection of Gibson Blvd. / University Blvd.

The following table provides a summary of the Levels-of-Service / delays associated with the 2035 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 1 - GIBSON BLVD. / UNIVERSITY BLVD.

2035 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		Case "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 37.6	1	D - 41.2	1	D - 41.2
	T	3	F - 136	3	F - 157	3	F - 157
	R	1	B - 16.3	1	B - 17.8	1	B - 17.8
WB	L	1	C - 31.8	1	F - 122	1	C - 32.0
	T	3	C - 28.6	3	C - 30.3	3	C - 30.3
	R	1	C - 23.1	1	C - 24.5	1	C - 24.5
NB	L	1	C - 33.8	1	D - 37.2	1	D - 37.2
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	C - 30.2	>	C - 29.6	>	C - 29.6
SB	L	1	F - 139	1	F - 168	1	F - 168
	T	1	C - 29.1	1	C - 28.3	1	C - 28.3
	R	1	C - 23.4	1	C - 21.9	1	C - 21.9
Intersection:			***F - 94.4***		***F - 107***		***F - 107***

2035 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		Case "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	F - 203	1	F - 208	1	F - 205
	T	3	D - 37.6	3	D - 48.8	3	D - 40.2
	R	1	C - 27.3	1	C - 33.0	1	C - 29.4
WB	L	1	C - 30.5	1	E - 60.7	1	C - 33.0
	T	3	F - 251	3	F - 270	3	F - 270
	R	1	C - 31.6	1	C - 33.2	1	C - 33.2
NB	L	1	C - 29.8	1	D - 39.3	1	D - 39.3
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	C - 21.9	>	C - 21.2	>	C - 21.2
SB	L	1	F - 249	1	F - 271	1	F - 271
	T	1	B - 19.7	1	B - 18.9	1	B - 18.9
	R	1	C - 21.7	1	C - 20.3	1	C - 20.3
Intersection:			***F - 152***		***F - 160***		***F - 159***

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

The 2035 analysis demonstrates that Case "Y" does not change the overall intersection delay during the AM Peak Hour and decreases the overall intersection delay by 1 second during the PM Peak Hour at the intersection of Gibson Blvd. / University Blvd. However, Case "Y" significantly improves the delays for the westbound left turn movement during both the AM Peak Hour and PM Peak Hour conditions, bringing the levels-of-service and delays from excessive (F-122 sec – AM and E-60.7 sec – PM)) to acceptable levels (C-32 sec – AM and C-33 sec – PM).

Queuing at the signalized intersection of Gibson Blvd. / University Blvd are addressed in the Site Traffic Analysis for this project dated December 10, 2015.

Intersection #2 – Gibson Blvd. / Walker Rd. - Pages A-59 thru A-70

The following table provides a summary of the Levels-of-Service / delays associated with the 2017 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 2 - GIBSON BLVD. / WALKER RD.

2017 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
EB	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L		A - 0.0	0	A - 0.0	1	B - 12.7
WB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
NB	R	1	D - 27.9	1	F - 68.9	1	C - 16.0
Intersection:			*u - 0.0*		*u - 2.1*		*u - 0.8*

2017 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
EB	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	1	B - 10.8
WB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
NB	R	1	C - 18.1	1	C - 22.5	1	B - 12.5
Intersection:			*u - 0.1*		*u - 0.5*		*u - 0.5*

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

The 2017 analysis demonstrates that Case "Y" improves the delay for the northbound right turn movement during both the AM Peak Hour and the PM Peak Hour at the intersection of Gibson Blvd. / Walker Rd. The westbound left turn movement levels-of-service and delays are acceptable during the AM Peak Hour and PM Peak Hour for Case "Y. The westbound left turn bay should be constructed to 150 feet long plus transition.

The following table provides a summary of the Levels-of-Service / delays associated with the 2035 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 2 - GIBSON BLVD. / WALKER RD.

2035 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
EB	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L		A - 0.0	0	A - 0.0	1	F - 70
WB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
NB	R	1	F - 85.9	1	F - 768	1	F - 175
Intersection:			*u - 0.1*		*u - 16.5*		*u - 5.0*

2035 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
EB	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	1	B - 14
WB	T	3	A - 0.0	3	A - 0.0	3	A - 0.0
NB	R	1	D - 31.4	1	F - 55.0	1	C - 16.9
Intersection:			*u - 0.1*		*u - 1.0*		*u - 0.5*

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

The 2035 analysis demonstrates that Case "Y" increases the delays for the northbound right turn movement during the AM Peak Hour by about 89 seconds and decreases the delays for the northbound right turn during the PM Peak Hour by about 14.5 seconds compared to the NO BUILD conditions at the intersection of Gibson Blvd. / Walker Rd. Case "Y" delays are significantly less than the delays for Case "N" for both the AM Peak Hour and PM Peak Hour periods.

Intersection #3 – Driveway "A" / University Blvd. - Pages A-71 thru A-78

The following table provides a summary of the Levels-of-Service / delays associated with the 2017 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 3 - DRIVEWAY "A" / UNIVERSITY BLVD.

2017 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	A - 10.0	1	A - 9.9
	R	>	A - 0.0	>	A - 10.0	>	A - 9.9
NB	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	1	A - 0.0	1	A - 7.9	1	A - 7.7
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			*u - 0.0*		*u - 5.2*		*u - 4.6*

2017 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	B - 10.3	1	B - 10.1
	R	>	A - 0.0	>	B - 10.3	>	B - 10.1
NB	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	1	A - 0.0	1	A - 7.9	1	A - 7.7
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			*u - 0.0*		*u - 4.3*		*u - 3.6*

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

The 2015 analysis demonstrates that Case "Y" slightly decreases the delays for the westbound shared left / right turn movement and the southbound left turn movement during both the AM Peak Hour and PM Peak Hour Conditions at the intersection of Driveway "A" / University Blvd.

The following table provides a summary of the Levels-of-Service / delays associated with the 2035 AM Peak Hour and PM Peak Hour BUILD Conditions associated with each of the two cases analyzed in this study:

Intersection: 3 - DRIVEWAY "A" / UNIVERSITY BLVD.

2035 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	B - 10.5	1	B - 10.4
	R	>	A - 0.0	>	B - 10.5	>	B - 10.4
NB	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	1	A - 0.0	1	A - 8.1	1	A - 7.8
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			*u - 0.0*		*u - 4.5*		*u - 3.8*

2035 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		CASE "N" BUILD		CASE "Y" BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	B - 14.0	1	B - 13.6
	R	>	A - 0.0	>	B - 14.0	>	B - 13.6
NB	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	1	A - 0.0	1	A - 9.0	1	A - 8.6
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			*u - 0.0*		*u - 3.3*		*u - 2.6*

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

Similarly to the 2017 analysis, the 2035 analysis demonstrates that Case "Y" slightly decreases the delays for the westbound shared left / right turn movement and the southbound left turn movement during both the AM Peak Hour and PM Peak Hour Conditions at the intersection of Driveway "A" / University Blvd.

Findings and Conclusions

This study finds that the westbound left turn movement levels-of-service and delays are significantly improved at the intersection of Gibson Blvd. / University Blvd. by constructing a left-in at the intersection of Gibson Blvd. / Walker Rd. Therefore, the requested left-in at Walker Rd. on Gibson Blvd. is determined to be beneficial to the adjacent transportation system. The developer also believes that the left-in at Walker Rd. is critical to the internal site circulation and to the marketing of his products.

Recommendations

All constructed improvements to proposed driveways and existing intersections shall be designed and built to maintain adequate safe sight distances to the degree possible.

Recommendations for improvements to the adjacent transportation system include:

Access – it is recommended that access to this project be obtained from each of the two major streets fronting the property. Since the proposed development is a fast food restaurant, access from the arterial roadways is very important. In order to access the major roadways fronting the project, approval of the Mid-Region Council of Governments' Transportation Coordinating Committee will be required. This study recommends that the existing right-in, right-out only intersection of Gibson Blvd. / Walker Rd. is modified to include a westbound left-in (150 feet long plus transition).

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Gibson / University Restaurants

(SE Corner)

Aerial Map

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

Albuquerque Geographic Information System

Map amended through: 9/2/2014

Note. Grey Shading Represents Area Outside of the City Limits

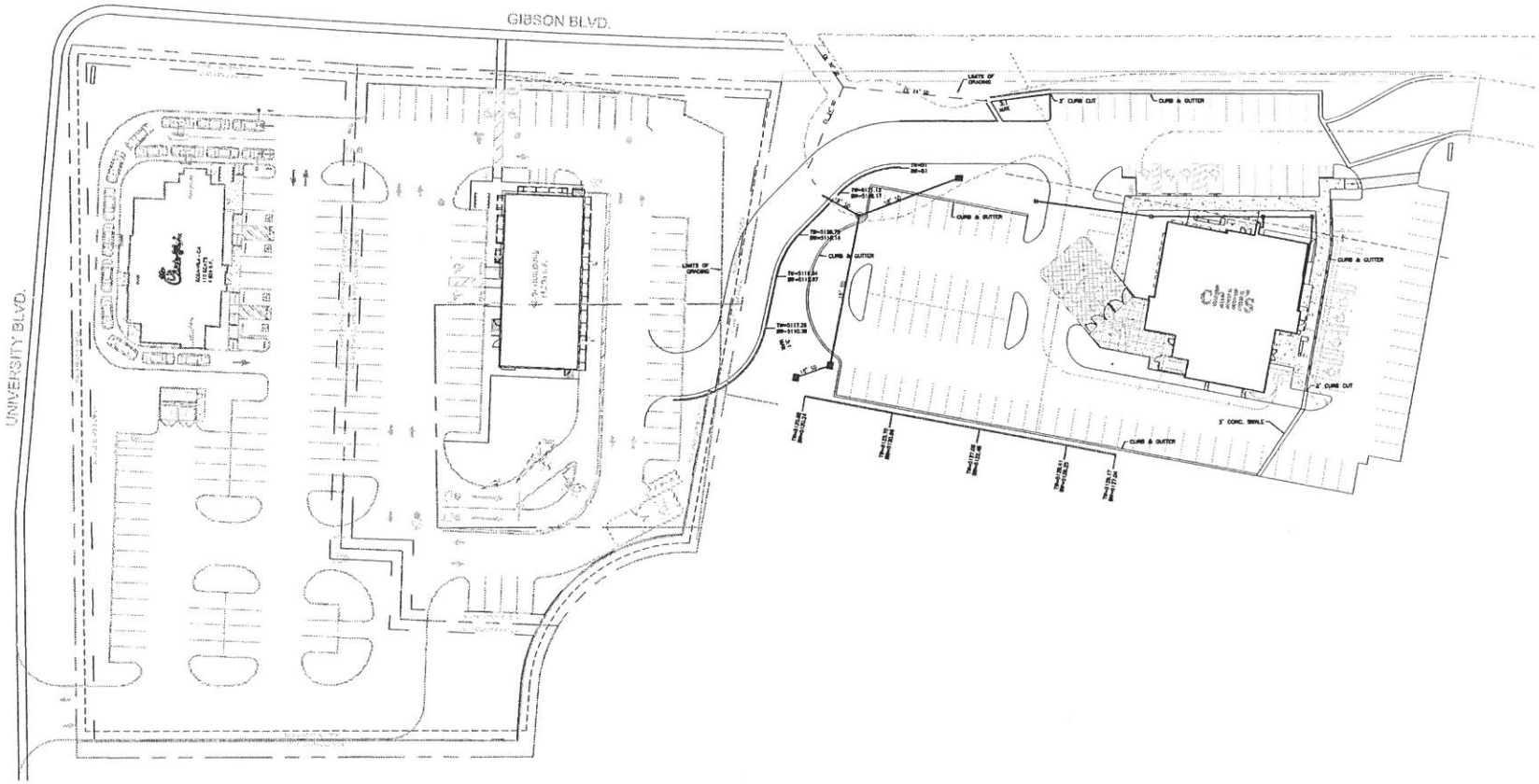
Zone Atlas Page:

M-15-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



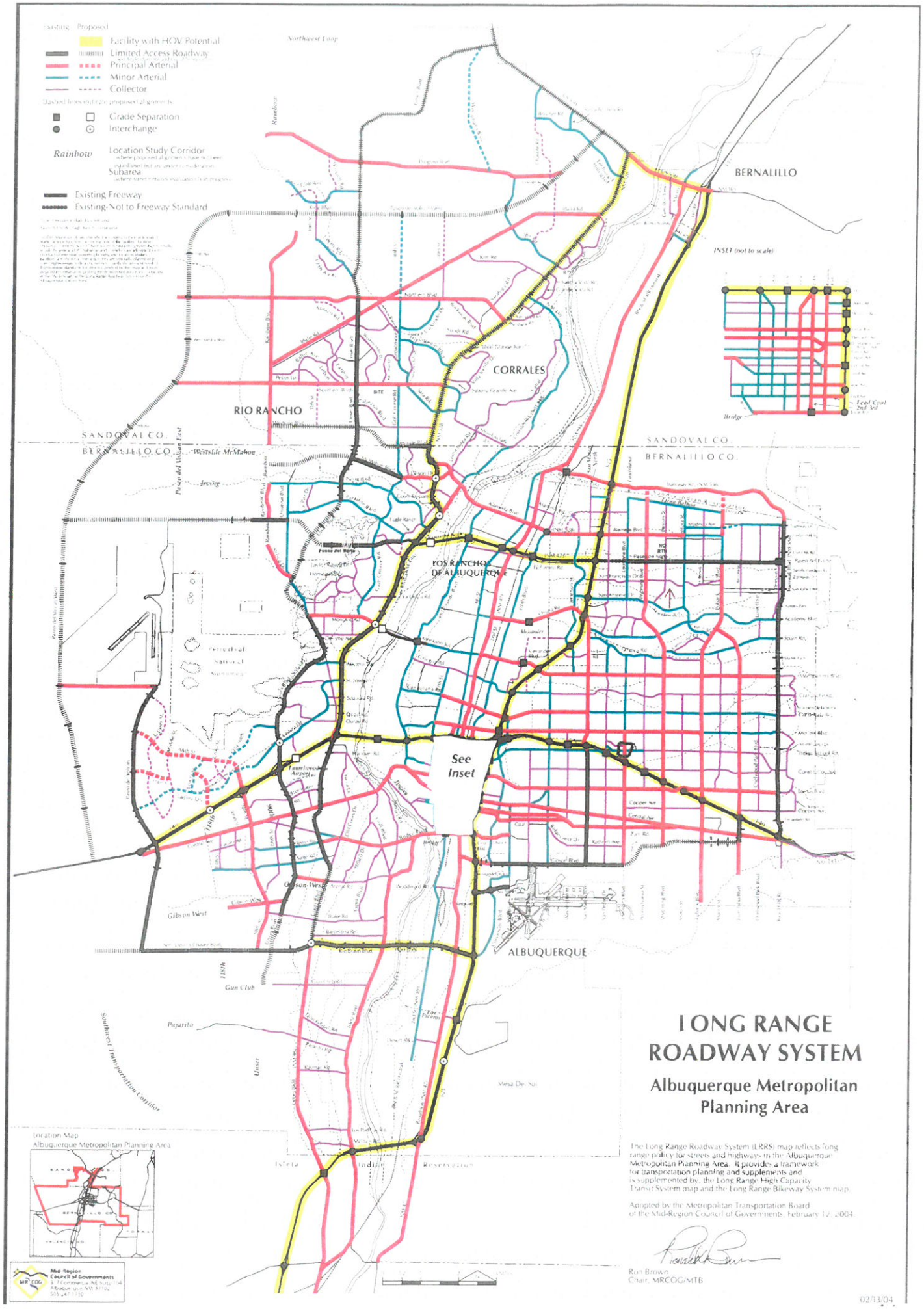
N

GRAPHIC SCALE

30 15 0 15 30

SCALE: 1"=30'

ENGINEER'S SEAL	CHILI'S UNIVERSITY BLVD & GIBSON BLVD	DRAWN BY DY
	GRADING AND DRAINAGE PLAN	DATE 8/21/14
		2013086-GRE
	TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # C2
RONALD R. BOHANNAN P.E. #7868		JOB # 2013086



LONG RANGE ROADWAY SYSTEM

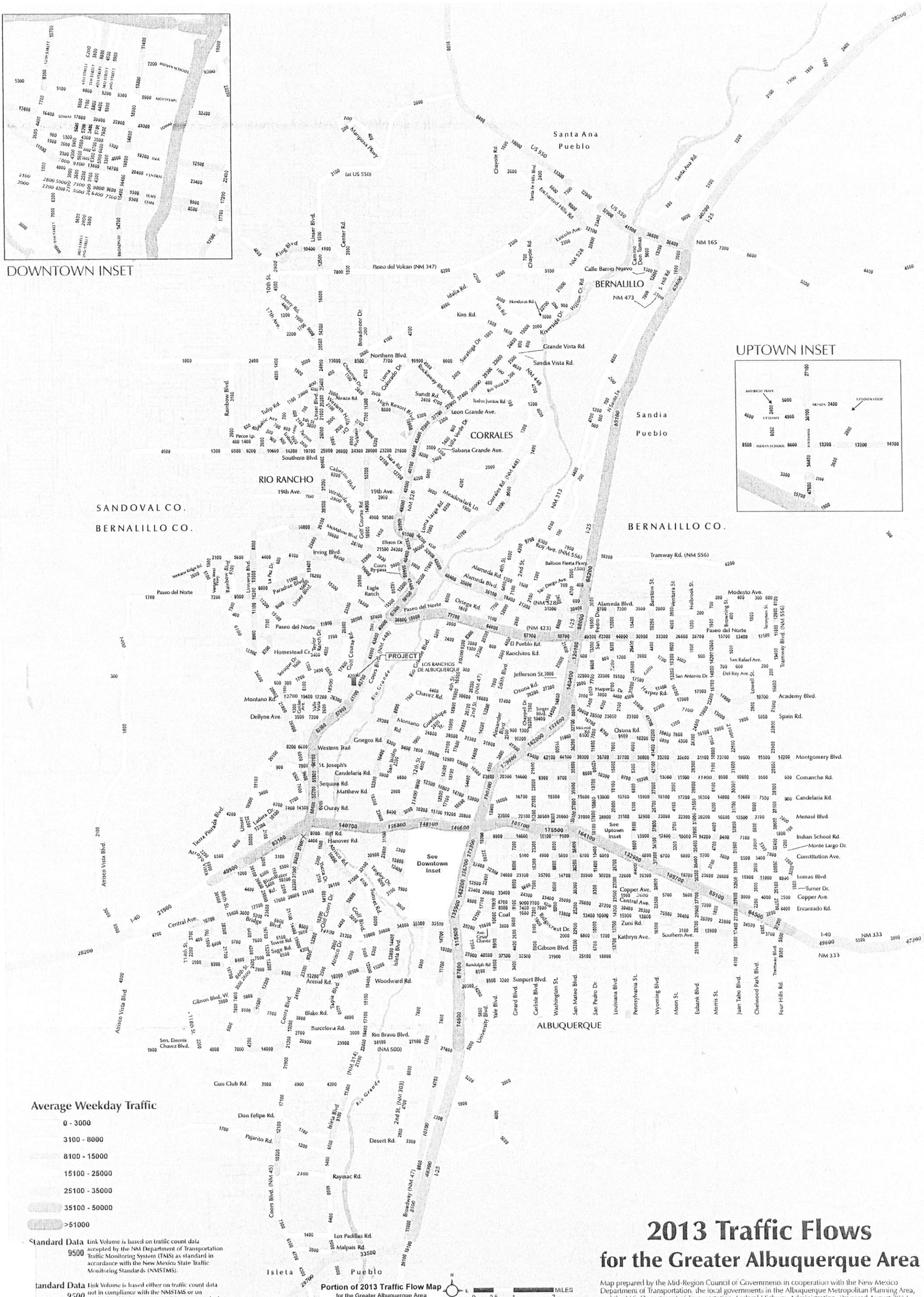
Albuquerque Metropolitan Planning Area

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

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

Ron Brown
Chair, MRCOG/MTB

02/13/04


DOWNTOWN INSET
UPTOWN INSET
Santa Ana Pueblo
Sandia Pueblo
Isleta Pueblo
BERNALILLO
CORRALES
RIO RANCHO
ALBUQUERQUE
SANDOVAL CO.
BERNALILLO CO.
PROJECT
See Downtown Inset
See Uptown Inset
Average Weekday Traffic
0 - 3000
3100 - 8000
8100 - 15000
15100 - 25000
25100 - 35000
35100 - 50000
>51000
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).
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.
Portion of 2013 Traffic Flow Map for the Greater Albuquerque Area (Mid-Region Council of Governments)
MILES
0 0.5 1 2
2013 Traffic Flows
for the Greater Albuquerque Area
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. Prepared August 2014.

Gibson Blvd. / University Blvd. Development

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

COMMENT	USE (ITE CODE) DESCRIPTION	Units	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						
Chick Fil-A	Fast Food Restaurant w/ Drive-Thru Window (934)	4.53	2,245	105	101	105	101
TBD	Fast Food Restaurant w/ Drive-Thru Window (934)	4.40	2,180	102	98	75	69
Chiles	High Turnover (Sit-Down) Restaurant (932)	6.10	776	36	30	36	24
	Subtotal (Unadjusted Trips)		**5,201**	**243**	**229**	**216**	**194**
	Pass-By Trips	30%		*-73*	*-69*	*-65*	*-58*
	Total Primary Trips			**170**	**160**	**151**	**136**

NOTE: Chick Fil-A Trips Adjusted for Local Data

COMMENT: Chick Fil-A Local Trip Data indicates that it will generate about 200+ Entering Trips / 200+ Exiting Trips during Noon H

Gibson Blvd. / University Blvd. Development
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Fast Food Restaurant w/ Drive-Thru Window (934)	*4.53*	2,245	105	101	105	101
(Adjusted for Chick Fil-A - Local Data)	**1,000 S.F.**					

ITE Trip Generation Equations:

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

T = *496.12* (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 = *45.42* (X) + *0*
51% Enter, *49%* 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 = *32.65* (X) + *0*
52% Enter, *48%* Exit

Comments:
Chick Fil-A

Based on ITE Trip Generation Manual - 9th Edition

Gibson Blvd. / University Blvd. Development
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Fast Food Restaurant w/ Drive-Thru Window (934)	***4.40*** **1,000 S.F.**	2,180	102	98	75	69

ITE Trip Generation Equations:

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

T = ***496.12*** (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 = ***45.42*** (X) + ***0***
51% Enter, ***49%*** 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 = ***32.65*** (X) + ***0***
52% Enter, ***48%*** Exit

Comments:
McDonald's

Based on ITE Trip Generation Manual - 9th Edition

Gibson Blvd. / University Blvd. Development
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
High Turnover (Sit-Down) Restaurant (932)	*6.10* 1,000 S.F.	776	36	30	36	24

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)

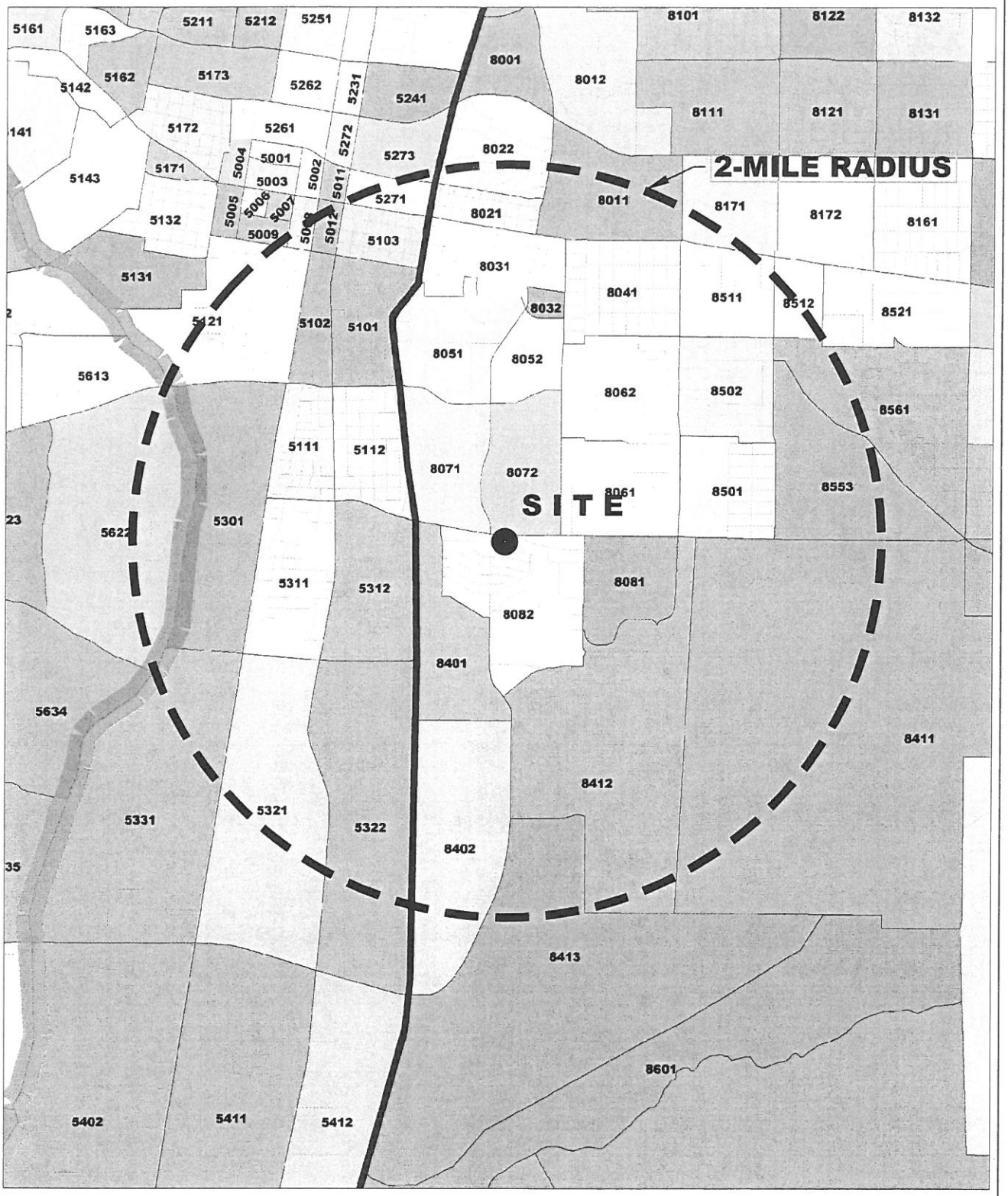
T = *10.81* (X) + *0*
55% Enter, *45%* Exit

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:
Chiles

Based on ITE Trip Generation Manual - 9th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Gibson / University Restaurants (SE Corner)

Trip Distribution Table

Gibson / University Restaurants (SE Corner)

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

							(UN) University Blvd. North			(GE) Gibson Blvd. East		
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
		2015	**2025**	**2017**								
Boundary Specified on DASZ Map												
5008	40%	228	220	226	90	**0.26%**	50%	0.13%	45	0%	0.00%	0
5012	80%	26	473	115	92	**0.26%**	50%	0.13%	46	0%	0.00%	0
5101	100%	2009	2146	2,036	2,036	**5.86%**	0%	0.00%	0	0%	0.00%	0
5102	100%	569	558	567	567	**1.63%**	0%	0.00%	0	0%	0.00%	0
5103	100%	1071	1224	1,102	1,102	**3.17%**	50%	1.59%	551	0%	0.00%	0
5111	100%	1294	1249	1,285	1,285	**3.70%**	0%	0.00%	0	0%	0.00%	0
5112	100%	1839	1963	1,864	1,864	**5.37%**	0%	0.00%	0	0%	0.00%	0
5121	70%	2930	3948	3,134	2,194	**6.32%**	0%	0.00%	0	0%	0.00%	0
5271	70%	1000	994	999	699	**2.01%**	50%	1.01%	350	0%	0.00%	0
5301	100%	19	21	19	19	**0.05%**	50%	0.03%	10	0%	0.00%	0
5311	100%	1425	1393	1,419	1,419	**4.09%**	0%	0.00%	0	0%	0.00%	0
5312	100%	223	214	221	221	**0.64%**	0%	0.00%	0	0%	0.00%	0
5321	65%	0	230	46	30	**0.09%**	0%	0.00%	0	0%	0.00%	0
5322	80%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
5331	20%	354	343	352	70	**0.20%**	0%	0.00%	0	0%	0.00%	0
5622	35%	2776	2744	2,770	970	**2.79%**	50%	1.40%	485	0%	0.00%	0
8011	60%	2675	3894	2,919	1,751	**5.04%**	50%	2.52%	876	50%	2.52%	876
8021	100%	785	823	793	793	**2.28%**	100%	2.28%	793	0%	0.00%	0
8022	30%	929	1166	976	293	**0.84%**	100%	0.84%	293	0%	0.00%	0
8031	100%	1721	1707	1,718	1,718	**4.95%**	100%	4.95%	1,718	0%	0.00%	0
8032	100%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0
8041	100%	2724	2665	2,712	2,712	**7.81%**	50%	3.90%	1,356	50%	3.90%	1,356
8051	100%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0
8052	100%	462	447	459	459	**1.32%**	100%	1:32%	459	0%	0.00%	0
8061	100%	1188	1265	1,203	1,203	**3.46%**	0%	0.00%	0	100%	3.46%	1,203
8062	100%	2681	2594	2,664	2,664	**7.67%**	0%	0.00%	0	100%	7.67%	2,664
8071	100%	773	2580	1,134	1,134	**3.26%**	50%	1.63%	567	0%	0.00%	0
8072	100%	1227	1397	1,261	1,261	**3.63%**	50%	1.82%	631	50%	1.82%	631
8081	100%	39	38	39	39	**0.11%**	0%	0.00%	0	100%	0.11%	39
8082	100%	1095	1055	1,087	1,087	**3.13%**	0%	0.00%	0	50%	1.56%	544
8171	10%	1057	1113	1,068	107	**0.31%**	0%	0.00%	0	100%	0.31%	107
8401	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8402	80%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8411	35%	501	496	500	175	**0.50%**	0%	0.00%	0	100%	0.50%	175
8412	95%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8413	10%	0	753	151	15	**0.04%**	0%	0.00%	0	0%	0.00%	0
8501	100%	1847	1951	1,868	1,868	**5.38%**	0%	0.00%	0	100%	5.38%	1,868
8502	100%	1186	1149	1,179	1,179	**3.39%**	0%	0.00%	0	100%	3.39%	1,179
8511	95%	1184	1164	1,180	1,121	**3.23%**	50%	1.61%	561	50%	1.61%	561
8512	35%	395	371	390	137	**0.39%**	0%	0.00%	0	100%	0.39%	137
8553	75%	2277	2269	2,275	1,706	**4.91%**	0%	0.00%	0	100%	4.91%	1,706
8561	25%	2624	2579	2,615	654	**1.88%**	0%	0.00%	0	100%	1.88%	654
				44,346	34,734	100.00%			**8,739**			**13,698**
									25.16%			39.44%

4/7/2015

Trip Distribution Table

Gibson / University Restaurants (SE Corner)

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

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

							(US) University Blvd. South			(GW) Gibson Blvd. South		
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
		2015	**2025**	**2017**								
Boundary Specified on DASZ Map												
5008	40%	228	220	226	90	**0.26%**	0%	0.00%	0	50%	0.13%	45
5012	80%	26	473	115	92	**0.26%**	0%	0.00%	0	50%	0.13%	46
5101	100%	2009	2146	2,036	2,036	**5.86%**	0%	0.00%	0	100%	5.86%	2,036
5102	100%	569	558	567	567	**1.63%**	0%	0.00%	0	100%	1.63%	567
5103	100%	1071	1224	1,102	1,102	**3.17%**	0%	0.00%	0	50%	1.59%	551
5111	100%	1294	1249	1,285	1,285	**3.70%**	0%	0.00%	0	100%	3.70%	1,285
5112	100%	1839	1963	1,864	1,864	**5.37%**	0%	0.00%	0	100%	5.37%	1,864
5121	70%	2930	3948	3,134	2,194	**6.32%**	0%	0.00%	0	100%	6.32%	2,194
5271	70%	1000	994	999	699	**2.01%**	0%	0.00%	0	50%	1.01%	350
5301	100%	19	21	19	19	**0.05%**	0%	0.00%	0	50%	0.03%	10
5311	100%	1425	1393	1,419	1,419	**4.09%**	0%	0.00%	0	100%	4.09%	1,419
5312	100%	223	214	221	221	**0.64%**	0%	0.00%	0	100%	0.64%	221
5321	65%	0	230	46	30	**0.09%**	0%	0.00%	0	100%	0.09%	30
5322	80%	0	0	0	0	**0.00%**	0%	0.00%	0	100%	0.00%	0
5331	20%	354	343	352	70	**0.20%**	100%	0.20%	70	0%	0.00%	0
5622	35%	2776	2744	2,770	970	**2.79%**	0%	0.00%	0	50%	1.40%	485
8011	60%	2675	3894	2,919	1,751	**5.04%**	0%	0.00%	0	0%	0.00%	0
8021	100%	785	823	793	793	**2.28%**	0%	0.00%	0	0%	0.00%	0
8022	30%	929	1166	976	293	**0.84%**	0%	0.00%	0	0%	0.00%	0
8031	100%	1721	1707	1,718	1,718	**4.95%**	0%	0.00%	0	0%	0.00%	0
8032	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8041	100%	2724	2665	2,712	2,712	**7.81%**	0%	0.00%	0	0%	0.00%	0
8051	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8052	100%	462	447	459	459	**1.32%**	0%	0.00%	0	0%	0.00%	0
8061	100%	1188	1265	1,203	1,203	**3.46%**	0%	0.00%	0	0%	0.00%	0
8062	100%	2681	2594	2,664	2,664	**7.67%**	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	1,134	1,134	**3.26%**	0%	0.00%	0	50%	1.63%	567
8072	100%	1227	1397	1,261	1,261	**3.63%**	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	**0.11%**	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,087	1,087	**3.13%**	50%	1.56%	544	0%	0.00%	0
8171	10%	1057	1113	1,068	107	**0.31%**	0%	0.00%	0	0%	0.00%	0
8401	100%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0
8402	80%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0
8411	35%	501	496	500	175	**0.50%**	0%	0.00%	0	0%	0.00%	0
8412	95%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0
8413	10%	0	753	151	15	**0.04%**	100%	0.04%	15	0%	0.00%	0
8501	100%	1847	1951	1,868	1,868	**5.38%**	0%	0.00%	0	0%	0.00%	0
8502	100%	1186	1149	1,179	1,179	**3.39%**	0%	0.00%	0	0%	0.00%	0
8511	95%	1184	1164	1,180	1,121	**3.23%**	0%	0.00%	0	0%	0.00%	0
8512	35%	395	371	390	137	**0.39%**	0%	0.00%	0	0%	0.00%	0
8553	75%	2277	2269	2,275	1,706	**4.91%**	0%	0.00%	0	0%	0.00%	0
8561	25%	2624	2579	2,615	654	**1.88%**	0%	0.00%	0	0%	0.00%	0
				44,346	34,734	100.00%			**629**			**11,669**
									1.81%			33.60%

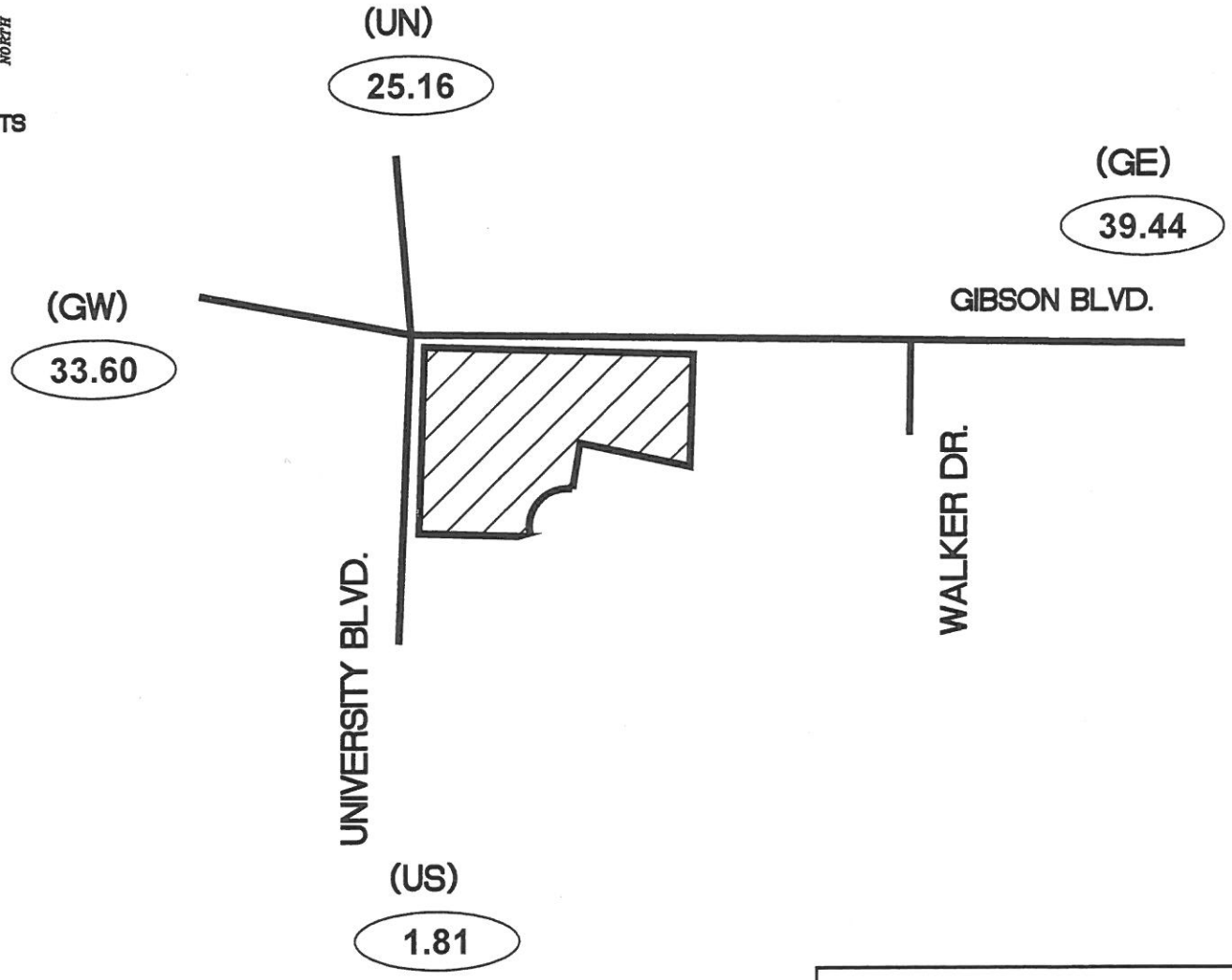
Gibson_University_TD_Comm.xlsx

Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Trip Distribution Map (%)

NTS



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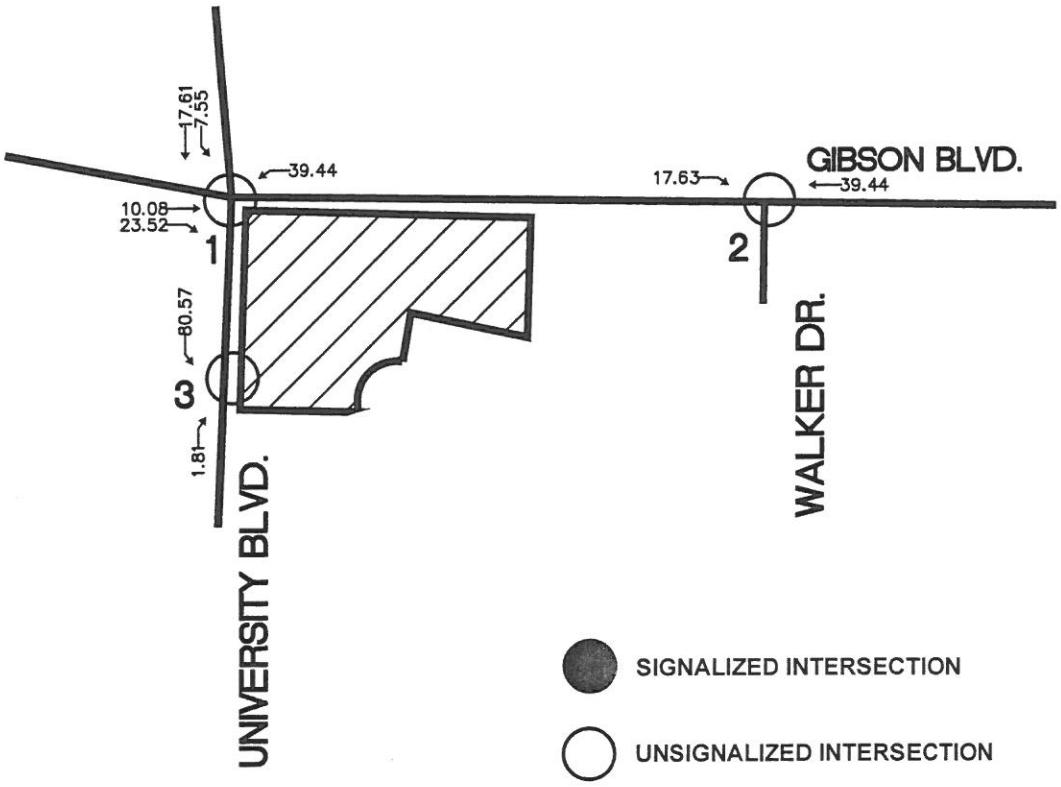
Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Trip Assignments (% Entering)

Case "N" - No left-in at Walker

NTS



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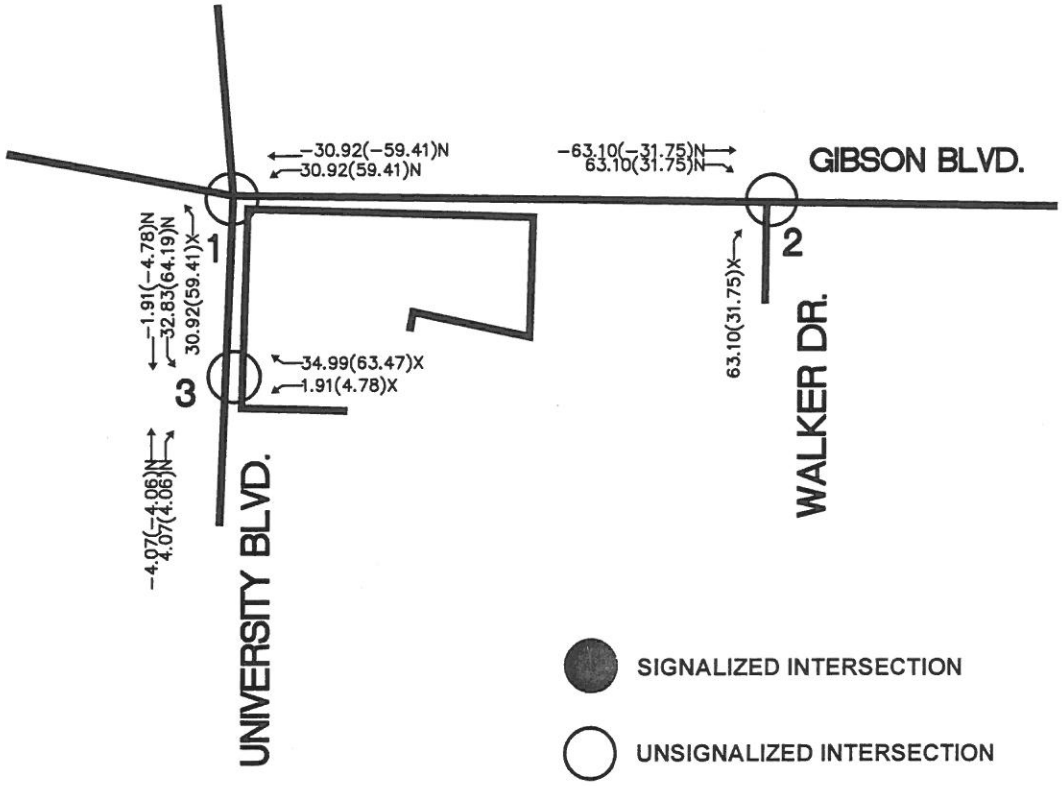
Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Passby Trip Assignments

Case "N" - No left-in at Walker

NTS



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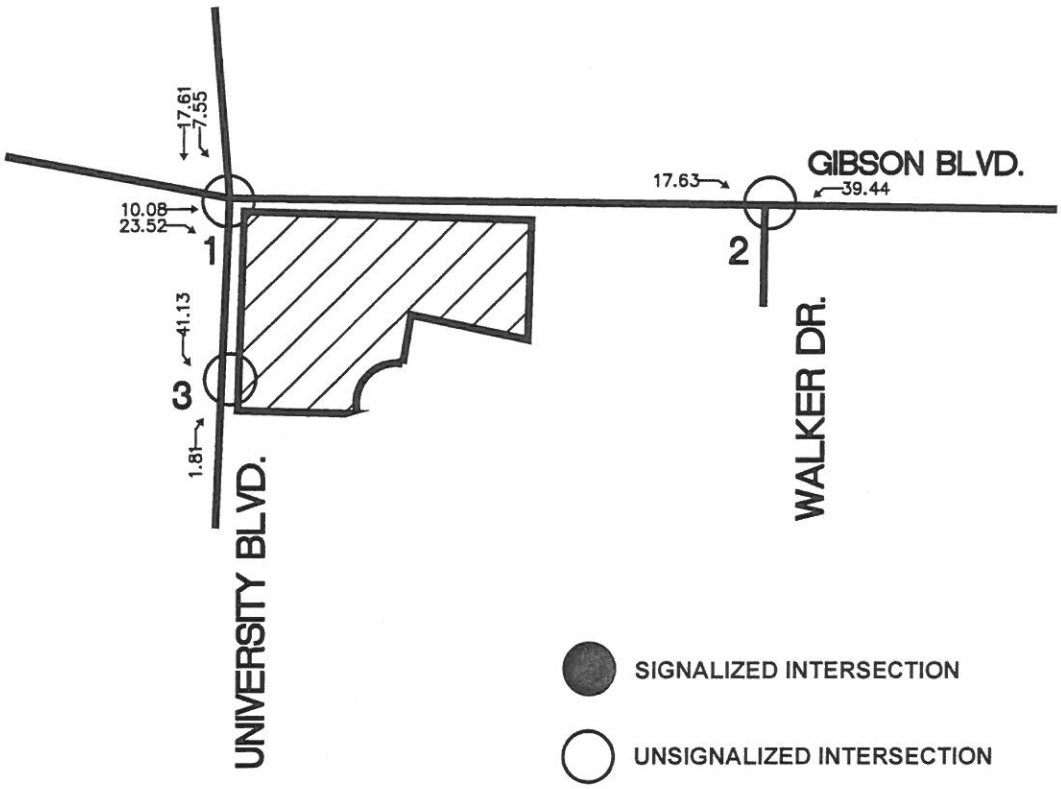
Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Trip Assignments (% Entering)

Case "Y" - Left-in at Walker

NTS



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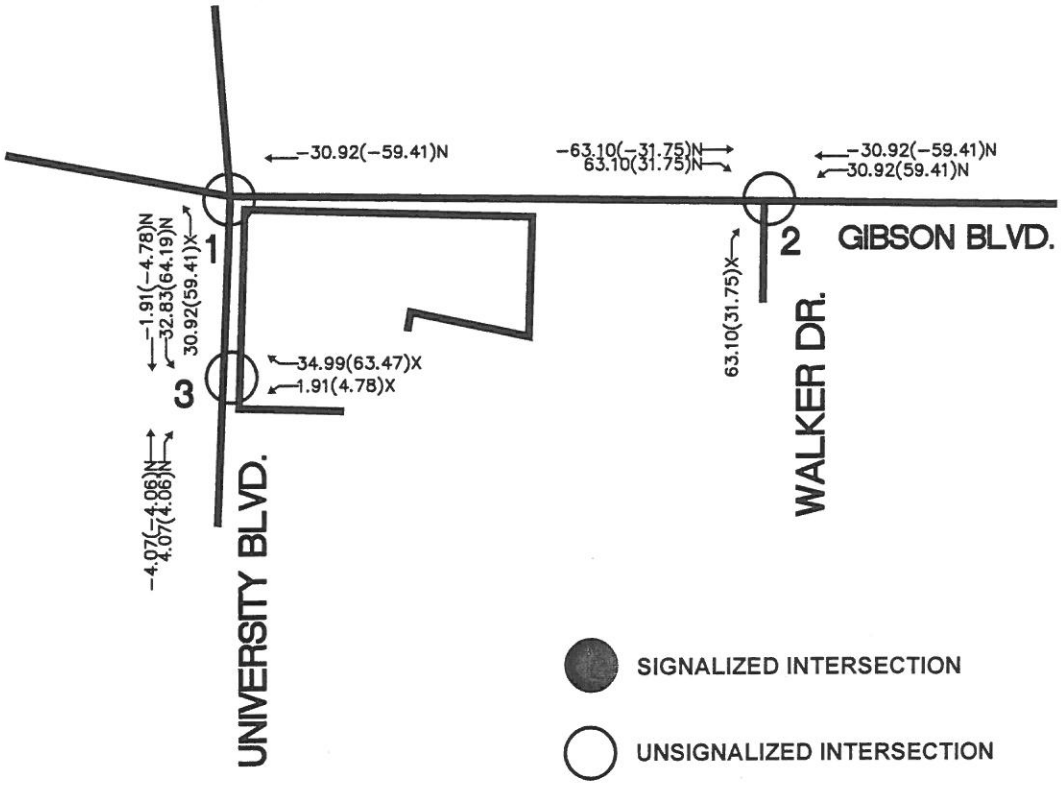
Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Passby Trip Assignments

Case "Y" - Left-in at Walker

NTS



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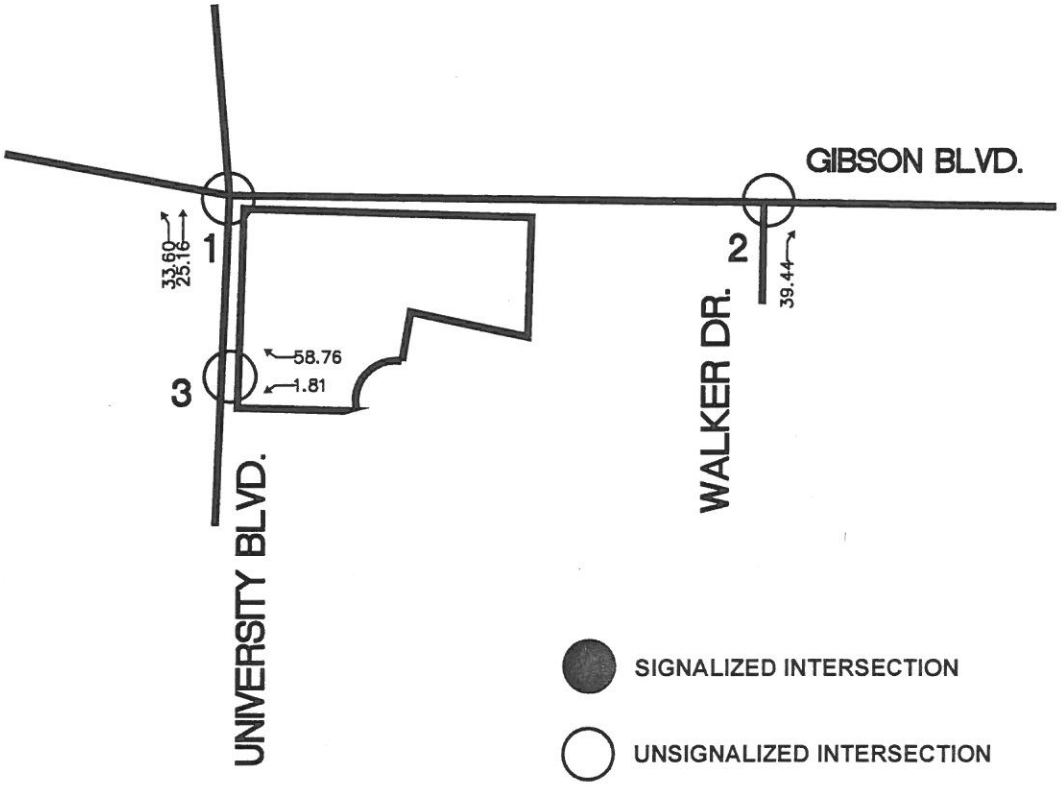
Gibson Blvd. / University Blvd. Restaurants

(SE Corner)

Trip Assignments (% Exiting)

Either Case

NTS



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Gibson / University Restaurants (SE Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2017) - 100% Development

Case "N" - No left-in at Walker

INTERSECTION: Summary

Gibson Blvd. / University Blvd.

(1)

3.0% Truck	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.95			0.95			0.95			0.95		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	175	1,842	28	21	988	119	76	20	36	166	13	74
2017 (NO BUILD - A.M.)	*186*	*1,959*	*30*	*26*	*1,090*	*121*	*80*	*21*	*38*	*198*	*15*	*88*
2017 (BUILD - A.M.)	***186***	***1,976***	***70***	***116***	***1,067***	***121***	***155***	***61***	***38***	***211***	***45***	***88***
	0.96			0.96			0.96			0.96		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	132	969	56	62	2,054	210	60	20	49	183	34	118
2017 (NO BUILD - P.M.)	*136*	*1,106*	*57*	*74*	*2,236*	*214*	*75*	*25*	*62*	*229*	*43*	*148*
2017 (BUILD - P.M.)	***136***	***1,121***	***93***	***173***	***2,197***	***214***	***155***	***59***	***62***	***240***	***70***	***148***

Gibson Blvd. / Walker Rd.

(2)

3.0% Truck	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	0.90			0.90			0.90			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	125	0	0	0	0	0	5	0	0	0
2017 (NO BUILD - A.M.)	*0*	*2,070*	*130*	*0*	*1,324*	*0*	*0*	*0*	*5*	*0*	*0*	*0*
2017 (BUILD - A.M.)	***0***	***2,024***	***206***	***0***	***1,391***	***0***	***0***	***0***	***112***	***0***	***0***	***0***
	0.97			0.97			0.97			0.97		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	24	0	0	0	0	0	21	0	0	0
2017 (NO BUILD - P.M.)	*0*	*1,483*	*25*	*0*	*2,676*	*0*	*0*	*0*	*21*	*0*	*0*	*0*
2017 (BUILD - P.M.)	***0***	***1,462***	***73***	***0***	***2,736***	***0***	***0***	***0***	***93***	***0***	***0***	***0***

Driveway "A" / University Blvd.

(3)

3.0% Truck	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.85			0.85			0.95			0.95		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2017 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*139*	*0*	*0*	*71*	*0*
2017 (BUILD - A.M.)	***0***	***0***	***0***	***4***	***0***	***118***	***0***	***136***	***6***	***161***	***70***	***0***
	0.85			0.85			0.96			0.96		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2017 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*162*	*0*	*0*	*174*	*0*
2017 (BUILD - P.M.)	***0***	***0***	***0***	***5***	***0***	***117***	***0***	***159***	***6***	***164***	***171***	***0***

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / University Blvd.

INTERSECTION: E-W Street: Gibson Blvd. (1)

N-S Street: University Blvd.

Year of Existing Counts 2015

Implementation Year **2017**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	3.05%			1.00%			2.61%			9.57%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	1,842	28	21	988	119	76	20	36	166	13	74
Background Traffic Growth	11	112	2	0	20	2	4	1	2	32	2	14
Subtotal	186	1,954	30	21	1,008	121	80	21	38	198	15	88
UNM Gibson Commercial Development	0	5	0	5	82	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***186***	***1,959***	***30***	***26***	***1,090***	***121***	***80***	***21***	***38***	***198***	***15***	***88***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	17	40	67	0	0	54	40	0	13	30	0
Total AM Peak Hour BUILD Volumes	**186**	**1,976**	**70**	**116**	**1,067**	**121**	**155**	**61**	**38**	**211**	**45**	**88**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	1.33%			1.00%			12.79%			12.51%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118
Background Traffic Growth	4	26	1	1	41	4	15	5	13	46	9	30
Subtotal	136	995	57	63	2,095	214	75	25	62	229	43	148
UNM Gibson Commercial Development	0	111	0	11	141	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***136***	***1,106***	***57***	***74***	***2,236***	***214***	***75***	***25***	***62***	***229***	***43***	***148***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	36	60	0	0	46	34	0	11	27	0
Total PM Peak Hour BUILD Volumes	**136**	**1,121**	**93**	**173**	**2,197**	**214**	**155**	**59**	**62**	**240**	**70**	**148**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	175	1842	28	21	988	119	76	20	36	166	13	74
2015 PM Peak Hr. Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118

MRCOG Forecast Volumes Worksheet

Based on 2015 Traffic Count				
2015 AM Link Volume	2,045	1,128	132	253
2015 PM Link Volume	1,157	2,326	129	335
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**2359**	**778**	**216**	**337**
2015 PM Link Volume	**1368**	**1773**	**418**	**332**
2035 AM Link Volume	3293	839	201	737
2035 PM Link Volume	1464	2663	459	1173
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2015-2035 AM Growth Rates	**3.05%**	**-1.28%**	**2.61%**	**9.57%**
2015-2035 PM Growth Rates	**1.33%**	**0.72%**	**12.79%**	**12.51%**
Growth Rate to Apply to 2015 Model Volumes to Match 2035 Forecasts				
2015-2035 AM Growth Rates	1.98%	0.39%	-0.35%	5.93%
2015-2035 PM Growth Rates	0.35%	2.51%	0.49%	12.67%

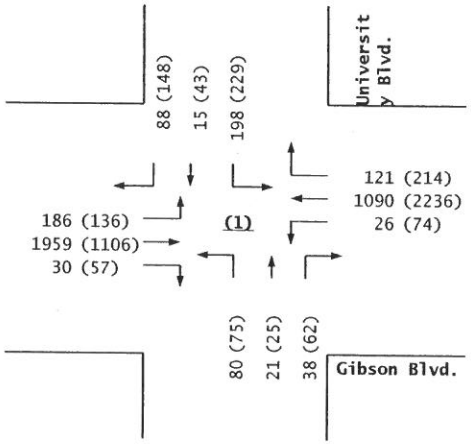
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*23*	*-23*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***23***	***-23***	***0***	***21***	***0***	***0***	***0***	***0***	***0***

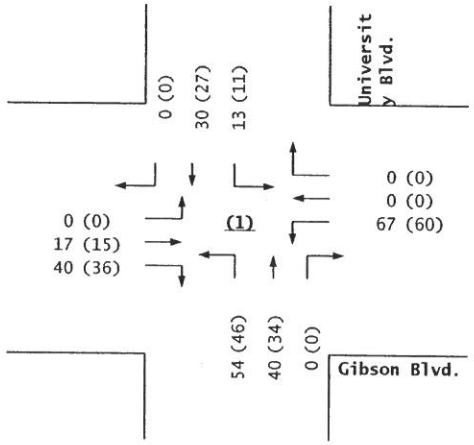
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*39*	*-39*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***39***	***-39***	***0***	***34***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

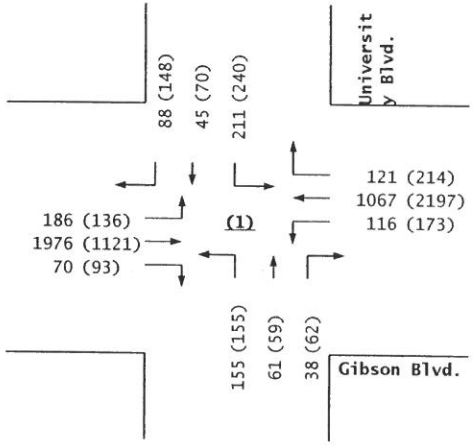
2017
NO BUILD



Trips



2017
BUILD



Gibson Blvd. / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / Walker Rd.

INTERSECTION: E-W Street: **Gibson Blvd.** N-S Street: **Walker Rd.**

(2) Due to the close proximity of intersections 1 & 2, some NOBUILD volumes were balanced and won't equal existing + growth

Year of Existing Counts 2015

Implementation Year **2017**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Growth Rates	1.00%			1.00%			1.00%			1.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	125	0	0	0	0	0	5	0	0	0
Background Traffic Growth	0	0	3	0	0	0	0	0	0	0	0	0
Subtotal	0	0	128	0	0	0	0	0	5	0	0	0
UNM Gibson Commercial Development	0	5	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,070***	***130***	***0***	***1,324***	***0***	***0***	***0***	***5***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*0.00%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	30	0	67	0	0	0	63	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**2,070**	**160**	**0**	**1,391**	**0**	**0**	**0**	**68**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-46*	*46*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**2,024**	**206**	**0**	**1,391**	**0**	**0**	**0**	**112**	**0**	**0**	**0**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	24	0	0	0	0	0	21	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	24	0	0	0	0	0	21	0	0	0
UNM Gibson Commercial Development	0	111	0	0	152	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,483***	***25***	***0***	***2,676***	***0***	***0***	***0***	***21***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*0.00%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	27	0	60	0	0	0	54	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**1,483**	**52**	**0**	**2,736**	**0**	**0**	**0**	**75**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-21*	*21*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**1,462**	**73**	**0**	**2,736**	**0**	**0**	**0**	**93**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
2015 AM Peak Hr. Volumes	0	0	125	0	0	0	0	0	5	0	0	0
2015 PM Peak Hr. Volumes	0	0	24	0	0	0	0	0	21	0	0	0

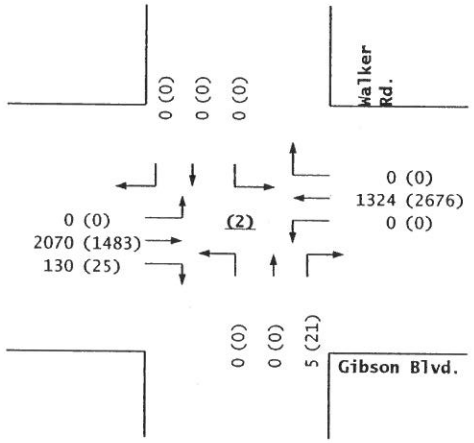
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (Walker Rd.)*			*Southbound (Walker Rd.)*		
Percent Entering	*0.00%*	*-63.10%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*-46*	*46*	*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%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***-46***	***46***	***0***	***0***	***0***	***0***	***0***	***44***	***0***	***0***	***0***

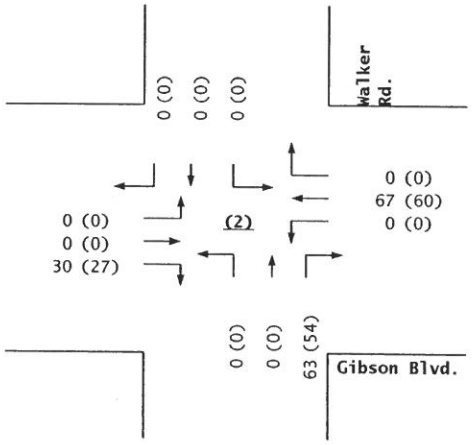
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (Walker Rd.)*			*Southbound (Walker Rd.)*		
Percent Entering	*0.00%*	*-31.75%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*-21*	*21*	*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%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***-21***	***21***	***0***	***0***	***0***	***0***	***0***	***18***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

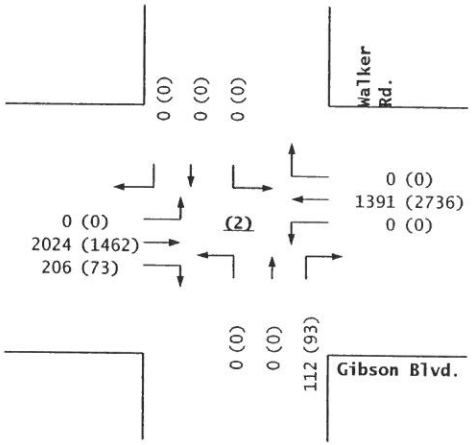
2017
NO BUILD



Trips



2017
BUILD



Gibson Blvd. / Walker Rd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Driveway "A" / University Blvd.

INTERSECTION: E-W Street: **Driveway "A"** (3)

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

Year of Existing Counts 2015

Implementation Year **2017**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	2.61%			2.61%			2.61%			2.61%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***139***	***0***	***0***	***71***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*80.57%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	3	0	94	0	0	3	137	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**3**	**0**	**94**	**0**	**139**	**3**	**137**	**71**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*-3*	*3*	*24*	*-1*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**4**	**0**	**118**	**0**	**136**	**6**	**161**	**70**	**0**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	12.79%			12.79%			12.79%			12.79%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***162***	***0***	***0***	***174***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*80.57%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	2	0	80	0	0	3	122	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**2**	**0**	**80**	**0**	**162**	**3**	**122**	**174**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*-3*	*3*	*42*	*-3*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**5**	**0**	**117**	**0**	**159**	**6**	**164**	**171**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2015 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

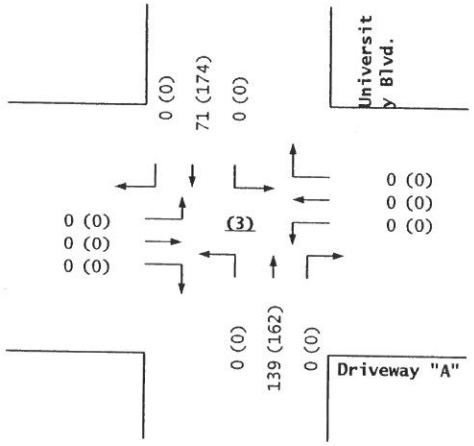
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.07%*	*4.07%*	*32.83%*	*-1.91%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*24*	*-1*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*1.91%*	*0.00%*	*34.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***1***	***0***	***24***	***0***	***-3***	***3***	***24***	***-1***	***0***

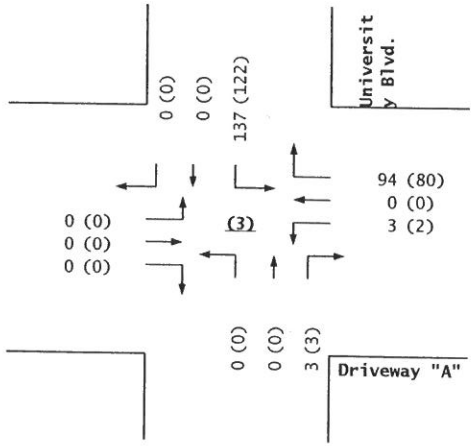
PM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.06%*	*4.06%*	*64.19%*	*-4.78%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*42*	*-3*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*4.78%*	*0.00%*	*63.47%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***3***	***0***	***37***	***0***	***-3***	***3***	***42***	***-3***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

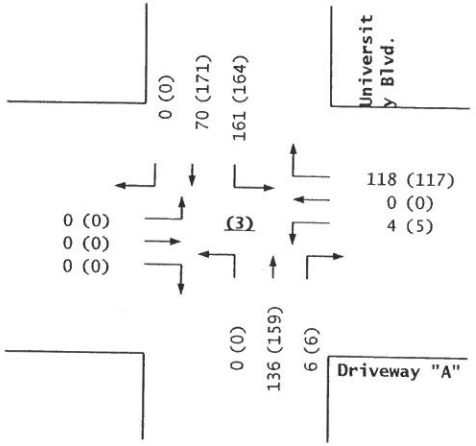
2017
NO BUILD



Trips



2017
BUILD



Driveway "A" / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2017) - 100% Development

Case "Y" - Left-in at Walker

INTERSECTION: **Summary**

Gibson Blvd. / University Blvd.

(1)

3.0% Truck

	0.95			0.95			0.95			0.95		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	175	1,842	28	21	988	119	76	20	36	166	13	74
2017 (NO BUILD - A.M.)	*186*	*1,959*	*30*	*26*	*1,090*	*121*	*80*	*21*	*38*	*198*	*15*	*88*
2017 (BUILD - A.M.)	***186***	***1,976***	***70***	***26***	***1,067***	***121***	***155***	***61***	***38***	***211***	***45***	***88***

	0.96			0.96			0.96			0.96		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	132	969	56	62	2,054	210	60	20	49	183	34	118
2017 (NO BUILD - P.M.)	*136*	*1,106*	*57*	*74*	*2,236*	*214*	*75*	*25*	*62*	*229*	*43*	*148*
2017 (BUILD - P.M.)	***136***	***1,121***	***93***	***74***	***2,197***	***214***	***155***	***59***	***62***	***240***	***70***	***148***

Gibson Blvd. / Walker Rd.

(2)

3.0% Truck

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	125	0	0	0	0	0	5	0	0	0
2017 (NO BUILD - A.M.)	*0*	*2,070*	*130*	*0*	*1,237*	*0*	*0*	*0*	*5*	*0*	*0*	*0*
2017 (BUILD - A.M.)	***0***	***2,024***	***206***	***90***	***1,301***	***0***	***0***	***0***	***112***	***0***	***0***	***0***

	0.97			0.97			0.97			0.97		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	24	0	0	0	0	0	21	0	0	0
2017 (NO BUILD - P.M.)	*0*	*1,483*	*25*	*0*	*2,676*	*0*	*0*	*0*	*21*	*0*	*0*	*0*
2017 (BUILD - P.M.)	***0***	***1,462***	***73***	***99***	***2,637***	***0***	***0***	***0***	***93***	***0***	***0***	***0***

Driveway "A" / University Blvd.

(3)

3.0% Truck

	0.85			0.85			0.95			0.95		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2017 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*139*	*0*	*0*	*71*	*0*
2017 (BUILD - A.M.)	***0***	***0***	***0***	***4***	***0***	***118***	***0***	***136***	***6***	***71***	***70***	***0***

	0.85			0.85			0.96			0.96		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2017 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*162*	*0*	*0*	*174*	*0*
2017 (BUILD - P.M.)	***0***	***0***	***0***	***5***	***0***	***117***	***0***	***159***	***6***	***65***	***171***	***0***

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / University Blvd.

INTERSECTION: E-W Street: Gibson Blvd. (1)

N-S Street: University Blvd.

Year of Existing Counts 2015

Implementation Year **2017**

Growth Rates	3.05%			1.00%			2.61%			9.57%		
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	1,842	28	21	988	119	76	20	36	166	13	74
Background Traffic Growth	11	112	2	0	20	2	4	1	2	32	2	14
Subtotal	186	1,954	30	21	1,008	121	80	21	38	198	15	88
UNM Gibson Commercial Development	0	5	0	5	82	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***186***	***1,959***	***30***	***26***	***1,090***	***121***	***80***	***21***	***38***	***198***	***15***	***88***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	17	40	0	0	0	54	40	0	13	30	0
Subtotal AM Pk Hr. BUILD Volumes	**186**	**1,976**	**70**	**26**	**1,090**	**121**	**134**	**61**	**38**	**211**	**45**	**88**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-23*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**186**	**1,976**	**70**	**26**	**1,067**	**121**	**155**	**61**	**38**	**211**	**45**	**88**

	1.33%			1.00%			12.79%			12.51%		
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118
Background Traffic Growth	4	26	1	1	41	4	15	5	13	46	9	30
Subtotal	136	995	57	63	2,095	214	75	25	62	229	43	148
UNM Gibson Commercial Development	0	111	0	11	141	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***136***	***1,106***	***57***	***74***	***2,236***	***214***	***75***	***25***	***62***	***229***	***43***	***148***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	36	0	0	0	46	34	0	11	27	0
Subtotal PM Pk Hr. BUILD Volumes	**136**	**1,121**	**93**	**74**	**2,236**	**214**	**121**	**59**	**62**	**240**	**70**	**148**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-39*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**136**	**1,121**	**93**	**74**	**2,197**	**214**	**155**	**59**	**62**	**240**	**70**	**148**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	175	1842	28	21	988	119	76	20	36	166	13	74
2015 PM Peak Hr. Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118

MRCOG Forecast Volumes Worksheet

Based on 2015 Traffic Count				
2015 AM Link Volume	2,045	1,128	132	253
2015 PM Link Volume	1,157	2,326	129	335
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	2359	778	216	337
2015 PM Link Volume	1368	1773	418	332
2035 AM Link Volume	3293	839	201	737
2035 PM Link Volume	1464	2663	469	1173
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2015-2035 AM Growth Rates	**3.05%**	**-1.28%**	**2.61%**	**9.57%**
2015-2035 PM Growth Rates	**1.33%**	**0.72%**	**12.79%**	**12.51%**
Growth Rate to Apply to 2015 Model Volumes to Match 2035 Forecasts				
2015-2035 AM Growth Rates	1.98%	0.39%	-0.35%	5.93%
2015-2035 PM Growth Rates	0.35%	2.51%	0.49%	12.67%

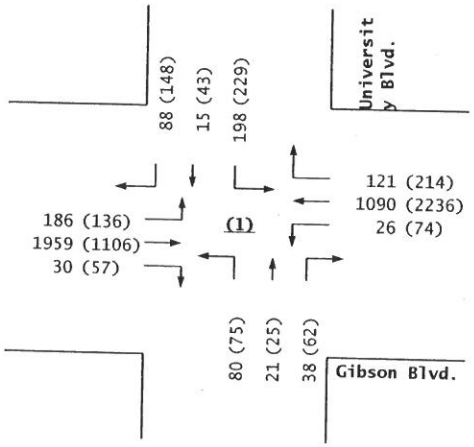
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-23*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***-23***	***0***	***21***	***0***	***0***	***0***	***0***	***0***

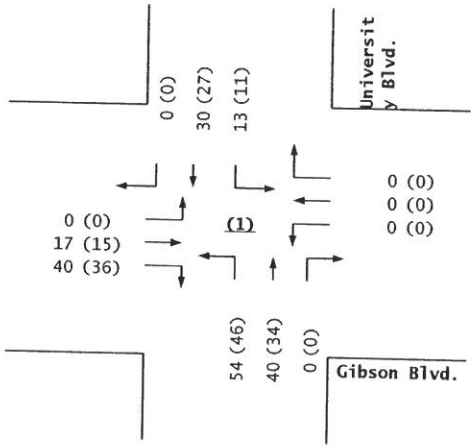
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-39*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***-39***	***0***	***34***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

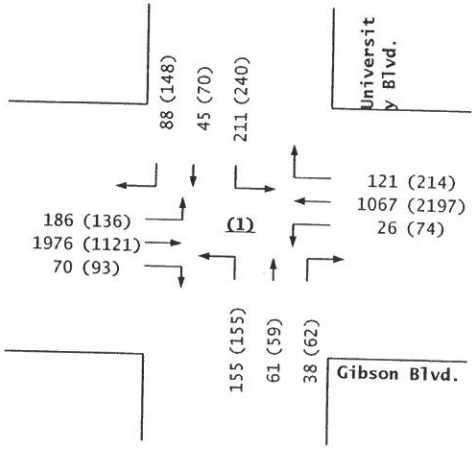
2017
NO BUILD



Trips



2017
BUILD



Gibson Blvd. / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / Walker Rd.

INTERSECTION: E-W Street: **Gibson Blvd.** N-S Street: **Walker Rd.**

(2) Due to the close proximity of intersections 1 & 2, some NOBUILD volumes were balanced and won't equal existing + growth

Year of Existing Counts 2015

Implementation Year **2017**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Growth Rates	1.00%			1.00%			1.00%			1.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	125	0	0	0	0	0	5	0	0	0
Background Traffic Growth	0	0	3	0	0	0	0	0	0	0	0	0
Subtotal	0	0	128	0	0	0	0	0	5	0	0	0
UNM Gibson Commercial Development	0	5	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,070***	***130***	***0***	***1,237***	***0***	***0***	***0***	***5***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	30	67	0	0	0	0	63	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**2,070**	**160**	**67**	**1,324**	**0**	**0**	**0**	**68**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-46*	*46*	*23*	*-23*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**2,024**	**206**	**90**	**1,301**	**0**	**0**	**0**	**112**	**0**	**0**	**0**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	24	0	0	0	0	0	21	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	24	0	0	0	0	0	21	0	0	0
UNM Gibson Commercial Development	0	111	0	0	152	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,483***	***25***	***0***	***2,676***	***0***	***0***	***0***	***21***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	27	60	0	0	0	0	54	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**1,483**	**52**	**60**	**2,676**	**0**	**0**	**0**	**75**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-21*	*21*	*39*	*-39*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**1,462**	**73**	**99**	**2,637**	**0**	**0**	**0**	**93**	**0**	**0**	**0**

Number of Commercial Trips Generated	Entering	Exiting		
	170	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
2015 AM Peak Hr. Volumes	0	0	125	0	0	0	0	0	5	0	0	0
2015 PM Peak Hr. Volumes	0	0	24	0	0	0	0	0	21	0	0	0

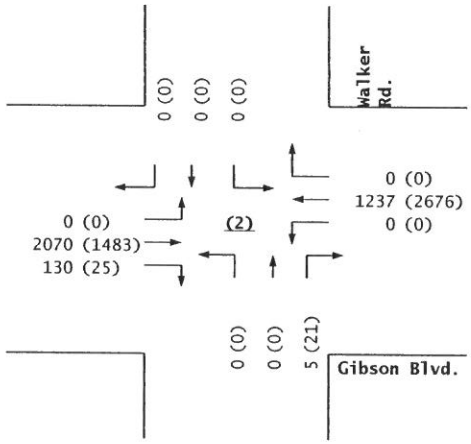
Pass-by Trip Calculations:

AM Pass-by Trips	***Eastbound (Gibson Blvd.)***			***Westbound (Gibson Blvd.)***			***Northbound (Walker Rd.)***			***Southbound (Walker Rd.)***		
Percent Entering	*0.00%*	*-63.10%*	*63.10%*	*30.92%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*-46*	*46*	*23*	*-23*	*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%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***-46***	***46***	***23***	***-23***	***0***	***0***	***0***	***44***	***0***	***0***	***0***

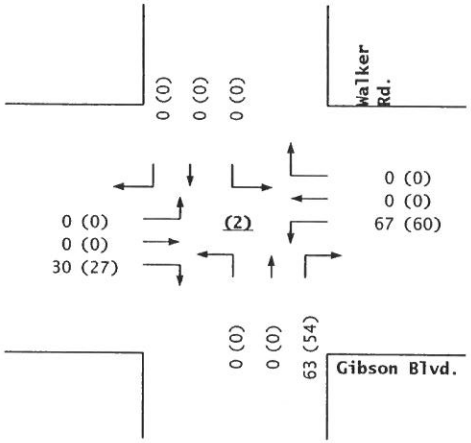
PM Pass-by Trips	***Eastbound (Gibson Blvd.)***			***Westbound (Gibson Blvd.)***			***Northbound (Walker Rd.)***			***Southbound (Walker Rd.)***		
Percent Entering	*0.00%*	*-31.75%*	*31.75%*	*59.41%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*-21*	*21*	*39*	*-39*	*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%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***-21***	***21***	***39***	***-39***	***0***	***0***	***0***	***18***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

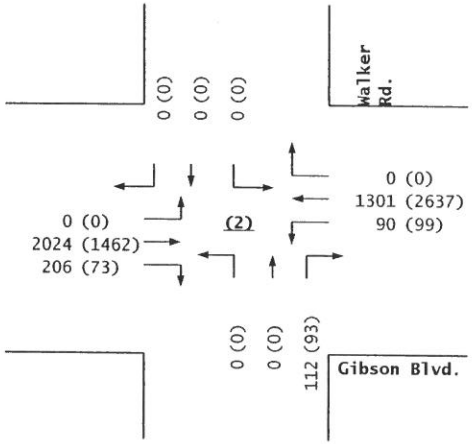
2017
NO BUILD



Trips



2017
BUILD



Gibson Blvd. / Walker Rd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Driveway "A" / University Blvd.

INTERSECTION: E-W Street: **Driveway "A"** (3)

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

Year of Existing Counts 2015

Implementation Year **2017**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	2.61%			2.61%			2.61%			2.61%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***139***	***0***	***0***	***71***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*41.13%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	3	0	94	0	0	3	70	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**3**	**0**	**94**	**0**	**139**	**3**	**70**	**71**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*-3*	*3*	*1*	*-1*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**4**	**0**	**118**	**0**	**136**	**6**	**71**	**70**	**0**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	12.79%			12.79%			12.79%			12.79%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***162***	***0***	***0***	***174***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*41.13%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	2	0	80	0	0	3	62	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**2**	**0**	**80**	**0**	**162**	**3**	**62**	**174**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*-3*	*3*	*3*	*-3*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**5**	**0**	**117**	**0**	**159**	**6**	**65**	**171**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2015 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

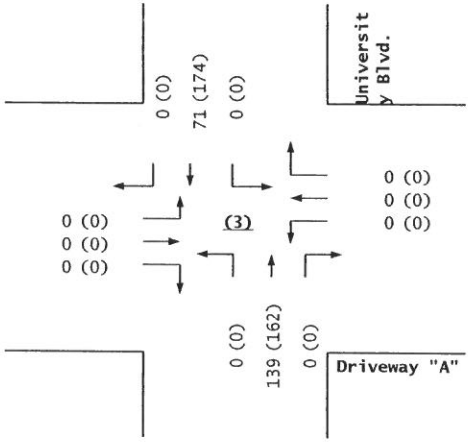
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.07%*	*4.07%*	*1.91%*	*-1.91%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*1*	*-1*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*1.91%*	*0.00%*	*34.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***1***	***0***	***24***	***0***	***-3***	***3***	***1***	***-1***	***0***

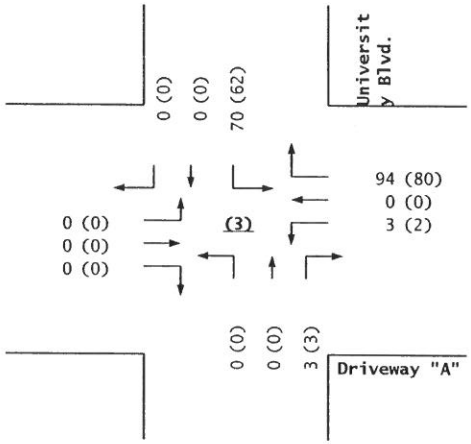
PM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.06%*	*4.06%*	*4.78%*	*-4.78%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*3*	*-3*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*4.78%*	*0.00%*	*63.47%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***3***	***0***	***37***	***0***	***-3***	***3***	***3***	***-3***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

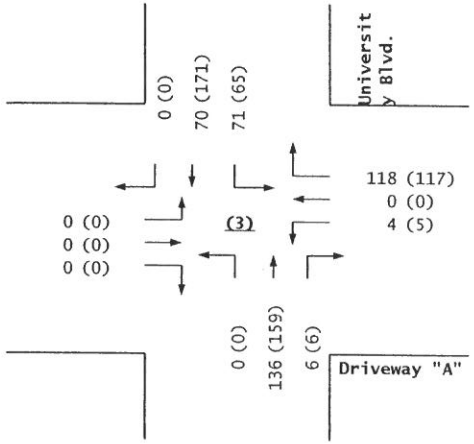
2017
NO BUILD



Trips



2017
BUILD



Driveway "A" / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2035) - 100% Development

Case "N" - No left-in at Walker

INTERSECTION: **Summary**

Gibson Blvd. / University Blvd.

(1)

3.0% Truck

	0.95			0.95			0.95			0.95		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	175	1,842	28	21	988	119	76	20	36	166	13	74
2035 (NO BUILD - A.M.)	*282*	*2,971*	*45*	*30*	*1,268*	*143*	*116*	*30*	*55*	*484*	*38*	*216*
2035 (BUILD - A.M.)	***282***	***2,988***	***85***	***120***	***1,245***	***143***	***191***	***70***	***55***	***497***	***68***	***216***

	0.96			0.96			0.96			0.96		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	132	969	56	62	2,054	210	60	20	49	183	34	118
2035 (NO BUILD - P.M.)	*167*	*1,338*	*71*	*85*	*2,606*	*252*	*213*	*71*	*174*	*641*	*119*	*413*
2035 (BUILD - P.M.)	***167***	***1,353***	***107***	***184***	***2,567***	***252***	***293***	***105***	***174***	***652***	***146***	***413***

Gibson Blvd. / Walker Rd.

(2)

3.0% Truck

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	125	0	0	0	0	0	5	0	0	0
2035 (NO BUILD - A.M.)	*0*	*3,365*	*150*	*0*	*1,528*	*0*	*0*	*0*	*6*	*0*	*0*	*0*
2035 (BUILD - A.M.)	***0***	***3,319***	***226***	***0***	***1,595***	***0***	***0***	***0***	***113***	***0***	***0***	***0***

	0.97			0.97			0.97			0.97		PHF
	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	24	0	0	0	0	0	21	0	0	0
2035 (NO BUILD - P.M.)	*0*	*2,235*	*29*	*0*	*3,095*	*0*	*0*	*0*	*25*	*0*	*0*	*0*
2035 (BUILD - P.M.)	***0***	***2,214***	***77***	***0***	***3,155***	***0***	***0***	***0***	***97***	***0***	***0***	***0***

Driveway "A" / University Blvd.

(3)

3.0% Truck

	0.85			0.85			0.95			0.95		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2035 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*201*	*0*	*0*	*113*	*0*
2035 (BUILD - A.M.)	***0***	***0***	***0***	***4***	***0***	***118***	***0***	***198***	***6***	***161***	***112***	***0***

	0.85			0.85			0.96			0.96		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2035 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*458*	*0*	*0*	*275*	*0*
2035 (BUILD - P.M.)	***0***	***0***	***0***	***5***	***0***	***117***	***0***	***455***	***6***	***164***	***272***	***0***

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / University Blvd.

INTERSECTION: E-W Street: Gibson Blvd. (1)
N-S Street: University Blvd.

Year of Existing Counts 2015
Horizon Year **2035**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	3.05%			1.00%			2.61%			9.57%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	1,842	28	21	988	119	76	20	36	166	13	74
Background Traffic Growth	107	1,124	17	4	198	24	40	10	19	318	25	142
Subtotal	282	2,966	45	25	1,186	143	116	30	55	484	38	216
UNM Gibson Commercial Development	0	5	0	5	82	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***282***	***2,971***	***45***	***30***	***1,268***	***143***	***116***	***30***	***55***	***484***	***38***	***216***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	17	40	67	0	0	54	40	0	13	30	0
Total AM Peak Hour BUILD Volumes	**282**	**2,988**	**85**	**120**	**1,245**	**143**	**191**	**70**	**55**	**497**	**68**	**216**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	1.33%			1.00%			12.79%			12.51%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118
Background Traffic Growth	35	258	15	12	411	42	153	51	125	458	85	295
Subtotal	167	1,227	71	74	2,465	252	213	71	174	641	119	413
UNM Gibson Commercial Development	0	111	0	11	141	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***167***	***1,338***	***71***	***85***	***2,606***	***252***	***213***	***71***	***174***	***641***	***119***	***413***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	36	60	0	0	46	34	0	11	27	0
Total PM Peak Hour BUILD Volumes	**167**	**1,353**	**107**	**184**	**2,567**	**252**	**293**	**105**	**174**	**652**	**146**	**413**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	175	1842	28	21	988	119	76	20	36	166	13	74
2015 PM Peak Hr. Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118

MRCOG Forecast Volumes Worksheet

Based on 2015 Traffic Count				
2015 AM Link Volume	2,045	1,128	132	253
2015 PM Link Volume	1,157	2,326	129	335
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**2359**	**778**	**216**	**337**
2015 PM Link Volume	**1368**	**1773**	**418**	**332**
2035 AM Link Volume	3293	839	201	737
2035 PM Link Volume	1464	2663	459	1173
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2015-2035 AM Growth Rates	**3.05%**	**-1.28%**	**2.61%**	**9.57%**
2015-2035 PM Growth Rates	**1.33%**	**0.72%**	**12.79%**	**12.51%**
Growth Rate to Apply to 2015 Model Volumes to Match 2035 Forecasts				
2015-2035 AM Growth Rates	1.98%	0.39%	-0.35%	5.93%
2015-2035 PM Growth Rates	0.35%	2.51%	0.49%	12.67%

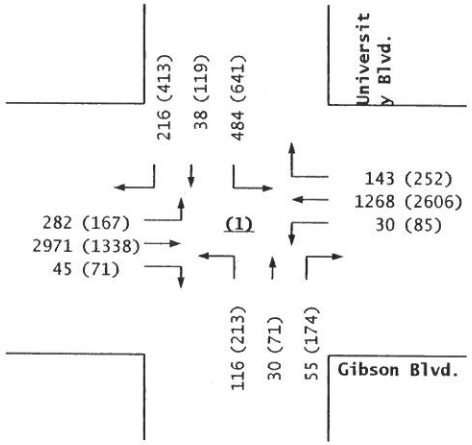
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*23*	*-23*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***23***	***-23***	***0***	***21***	***0***	***0***	***0***	***0***	***0***

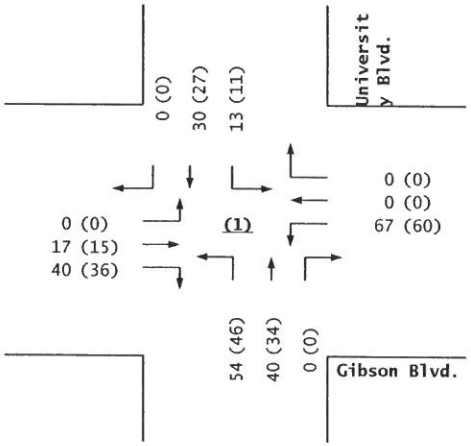
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*39*	*-39*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***39***	***-39***	***0***	***34***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

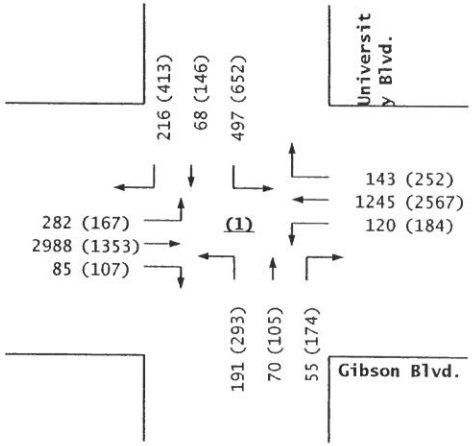
2035
NO BUILD



Trips



2035
BUILD



Gibson Blvd. / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / Walker Rd.

INTERSECTION: E-W Street: **Gibson Blvd.** N-S Street: **Walker Rd.**

(2) Due to the close proximity of intersections 1 & 2, some NOBUILD volumes were balanced and won't equal existing + growth

Year of Existing Counts 2015

Horizon Year **2035**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Growth Rates	1.00%			1.00%			1.00%			1.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	125	0	0	0	0	0	5	0	0	0
Background Traffic Growth	0	0	25	0	0	0	0	0	1	0	0	0
Subtotal	0	0	150	0	0	0	0	0	6	0	0	0
UNM Gibson Commercial Development	0	5	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***3,365***	***150***	***0***	***1,528***	***0***	***0***	***0***	***6***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*0.00%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	30	0	67	0	0	0	63	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**3,365**	**180**	**0**	**1,595**	**0**	**0**	**0**	**69**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-46*	*46*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**3,319**	**226**	**0**	**1,595**	**0**	**0**	**0**	**113**	**0**	**0**	**0**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	24	0	0	0	0	0	21	0	0	0
Background Traffic Growth	0	0	5	0	0	0	0	0	4	0	0	0
Subtotal	0	0	29	0	0	0	0	0	25	0	0	0
UNM Gibson Commercial Development	0	111	0	0	152	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***2,235***	***29***	***0***	***3,095***	***0***	***0***	***0***	***25***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*0.00%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	27	0	60	0	0	0	54	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**2,235**	**56**	**0**	**3,155**	**0**	**0**	**0**	**79**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-21*	*21*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**2,214**	**77**	**0**	**3,155**	**0**	**0**	**0**	**97**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
2015 AM Peak Hr. Volumes	0	0	125	0	0	0	0	0	5	0	0	0
2015 PM Peak Hr. Volumes	0	0	24	0	0	0	0	0	21	0	0	0

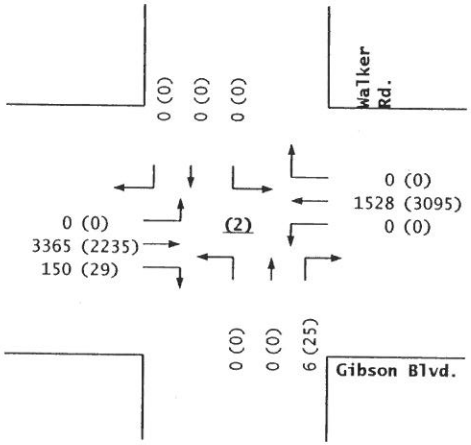
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (Walker Rd.)*			*Southbound (Walker Rd.)*		
Percent Entering	*0.00%*	*-63.10%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*-46*	*46*	*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%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***-46***	***46***	***0***	***0***	***0***	***0***	***0***	***44***	***0***	***0***	***0***

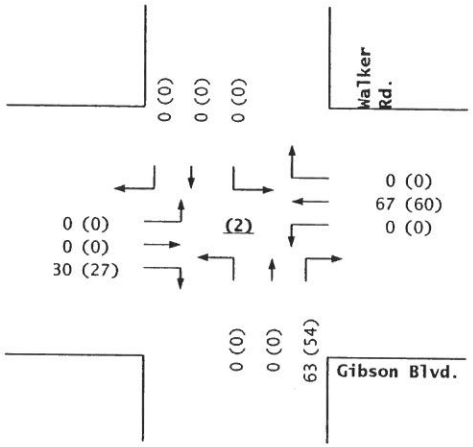
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (Walker Rd.)*			*Southbound (Walker Rd.)*		
Percent Entering	*0.00%*	*-31.75%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*-21*	*21*	*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%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***-21***	***21***	***0***	***0***	***0***	***0***	***0***	***18***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

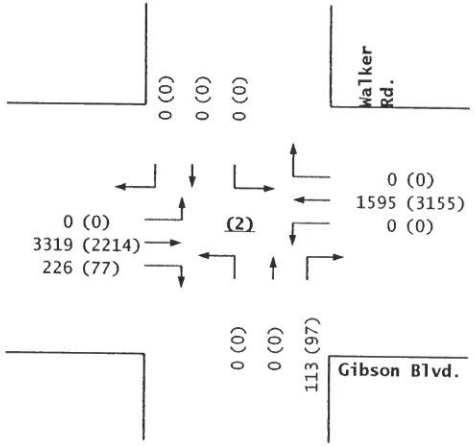
2035
NO BUILD



Trips



2035
BUILD



Gibson Blvd. / Walker Rd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Driveway "A" / University Blvd.

INTERSECTION: E-W Street: **Driveway "A"** (3)

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

Year of Existing Counts 2015

Horizon Year **2035**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	2.61%			2.61%			2.61%			2.61%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***201***	***0***	***0***	***113***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*80.57%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	3	0	94	0	0	3	137	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**3**	**0**	**94**	**0**	**201**	**3**	**137**	**113**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*-3*	*3*	*24*	*-1*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**4**	**0**	**118**	**0**	**198**	**6**	**161**	**112**	**0**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	12.79%			12.79%			12.79%			12.79%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***458***	***0***	***0***	***275***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*80.57%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	2	0	80	0	0	3	122	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**2**	**0**	**80**	**0**	**458**	**3**	**122**	**275**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*-3*	*3*	*42*	*-3*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**5**	**0**	**117**	**0**	**455**	**6**	**164**	**272**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2015 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

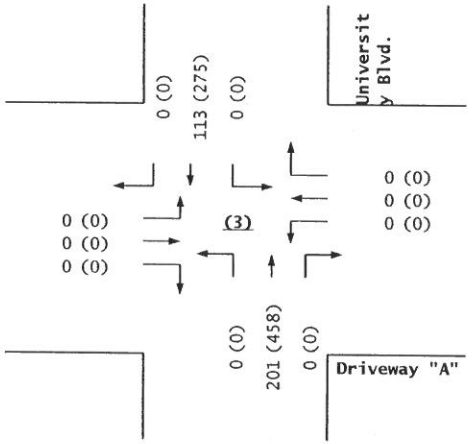
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.07%*	*4.07%*	*32.83%*	*-1.91%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*24*	*-1*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*1.91%*	*0.00%*	*34.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***1***	***0***	***24***	***0***	***-3***	***3***	***24***	***-1***	***0***

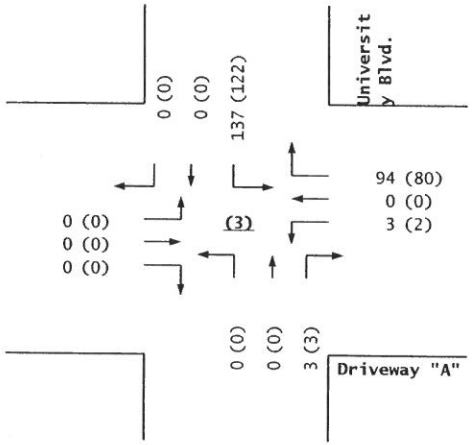
PM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.06%*	*4.06%*	*64.19%*	*-4.78%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*42*	*-3*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*4.78%*	*0.00%*	*63.47%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***3***	***0***	***37***	***0***	***-3***	***3***	***42***	***-3***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

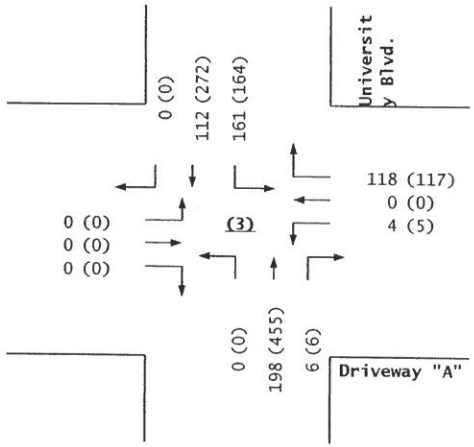
2035
NO BUILD



Trips



2035
BUILD



Driveway "A" / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2035) - 100% Development

Case "Y" - Left-in at Walker

INTERSECTION: **Summary**

Gibson Blvd. / University Blvd.

(1)

3.0% Truck

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.95			0.95			0.95			0.95		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	175	1,842	28	21	988	119	76	20	36	166	13	74
2035 (NO BUILD - A.M.)	282	2,971	45	30	1,268	143	116	30	55	484	38	216
2035 (BUILD - A.M.)	**282**	**2,988**	**85**	**30**	**1,245**	**143**	**191**	**70**	**55**	**497**	**68**	**216**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.96			0.96			0.96			0.96		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	132	969	56	62	2,054	210	60	20	49	183	34	118
2035 (NO BUILD - P.M.)	167	1,338	71	85	2,606	252	213	71	174	641	119	413
2035 (BUILD - P.M.)	**167**	**1,353**	**107**	**85**	**2,567**	**252**	**293**	**105**	**174**	**652**	**146**	**413**

Gibson Blvd. / Walker Rd.

(2)

3.0% Truck

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	0.90			0.90			0.90			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	125	0	0	0	0	0	5	0	0	0
2035 (NO BUILD - A.M.)	0	3,385	130	0	1,528	0	0	0	6	0	0	0
2035 (BUILD - A.M.)	**0**	**3,339**	**206**	**90**	**1,505**	**0**	**0**	**0**	**113**	**0**	**0**	**0**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	0.97			0.97			0.97			0.97		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	24	0	0	0	0	0	21	0	0	0
2035 (NO BUILD - P.M.)	0	2,239	25	0	3,095	0	0	0	25	0	0	0
2035 (BUILD - P.M.)	**0**	**2,218**	**73**	**99**	**3,056**	**0**	**0**	**0**	**97**	**0**	**0**	**0**

Driveway "A" / University Blvd.

(3)

3.0% Truck

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.85			0.85			0.95			0.95		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2035 (NO BUILD - A.M.)	0	0	0	0	0	0	0	201	0	0	113	0
2035 (BUILD - A.M.)	**0**	**0**	**0**	**4**	**0**	**118**	**0**	**198**	**6**	**71**	**112**	**0**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	0.85			0.85			0.96			0.96		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2015)	0	0	0	0	0	0	0	0	0	0	0	0
2035 (NO BUILD - P.M.)	0	0	0	0	0	0	0	458	0	0	275	0
2035 (BUILD - P.M.)	**0**	**0**	**0**	**5**	**0**	**117**	**0**	**455**	**6**	**65**	**272**	**0**

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / University Blvd.

INTERSECTION: E-W Street: **Gibson Blvd.** (1)

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

Year of Existing Counts 2015

Horizon Year **2035**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	3.05%			1.00%			2.61%			9.57%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	1,842	28	21	988	119	76	20	36	166	13	74
Background Traffic Growth	107	1,124	17	4	198	24	40	10	19	318	25	142
Subtotal	282	2,966	45	25	1,186	143	116	30	55	484	38	216
UNM Gibson Commercial Development	0	5	0	5	82	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***282***	***2,971***	***45***	***30***	***1,268***	***143***	***116***	***30***	***55***	***484***	***38***	***216***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	17	40	0	0	0	54	40	0	13	30	0
Subtotal AM Pk Hr. BUILD Volumes	**282**	**2,988**	**85**	**30**	**1,268**	**143**	**170**	**70**	**55**	**497**	**68**	**216**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-23*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**282**	**2,988**	**85**	**30**	**1,245**	**143**	**191**	**70**	**55**	**497**	**68**	**216**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
	1.33%			1.00%			12.79%			12.51%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118
Background Traffic Growth	35	258	15	12	411	42	153	51	125	458	85	295
Subtotal	167	1,227	71	74	2,465	252	213	71	174	641	119	413
UNM Gibson Commercial Development	0	111	0	11	141	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***167***	***1,338***	***71***	***85***	***2,606***	***252***	***213***	***71***	***174***	***641***	***119***	***413***
Percent Commercial Trips Generated(Entering)	*0.00%*	*10.08%*	*23.52%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.55%*	*17.61%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.60%*	*25.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	36	0	0	0	46	34	0	11	27	0
Subtotal PM Pk Hr. BUILD Volumes	**167**	**1,353**	**107**	**85**	**2,606**	**252**	**259**	**105**	**174**	**652**	**146**	**413**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-39*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**167**	**1,353**	**107**	**85**	**2,567**	**252**	**293**	**105**	**174**	**652**	**146**	**413**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	175	1842	28	21	988	119	76	20	36	166	13	74
2015 PM Peak Hr. Volumes	132	969	56	62	2,054	210	60	20	49	183	34	118

MRCOG Forecast Volumes Worksheet

Based on 2015 Traffic Count				
2015 AM Link Volume	**2,045**	**1,128**	**132**	**253**
2015 PM Link Volume	**1,157**	**2,326**	**129**	**335**
Based on MRCOG Model (2035 Data Set)				
2015 AM Link Volume	**2359**	**778**	**216**	**337**
2015 PM Link Volume	**1368**	**1773**	**418**	**332**
2035 AM Link Volume	3293	839	201	737
2035 PM Link Volume	1464	2663	459	1173
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2015-2035 AM Growth Rates	**3.05%**	**-1.28%**	**2.61%**	**9.57%**
2015-2035 PM Growth Rates	**1.33%**	**0.72%**	**12.79%**	**12.51%**
Growth Rate to Apply to 2015 Model Volumes to Match 2035 Forecasts				
2015-2035 AM Growth Rates	1.98%	0.39%	-0.35%	5.93%
2015-2035 PM Growth Rates	0.35%	2.51%	0.49%	12.67%

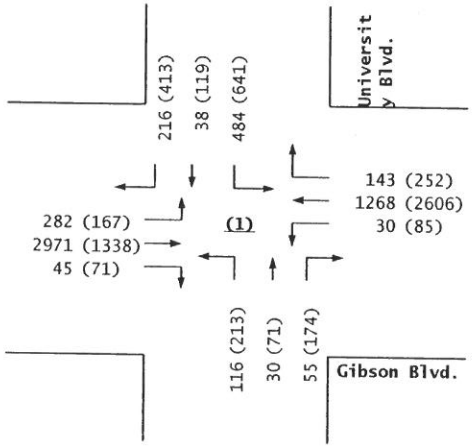
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-23*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***-23***	***0***	***21***	***0***	***0***	***0***	***0***	***0***

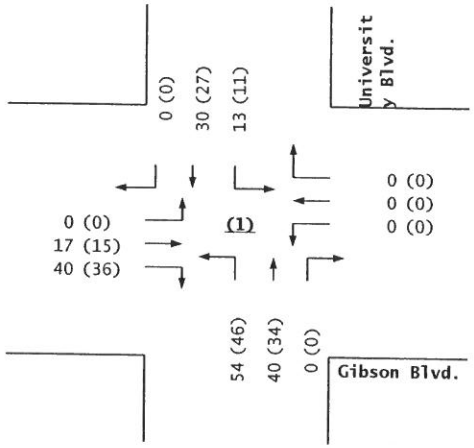
PM Pass-by Trips	*Eastbound (Gibson Blvd.)*			*Westbound (Gibson Blvd.)*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-39*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*34*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***-39***	***0***	***34***	***0***	***0***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

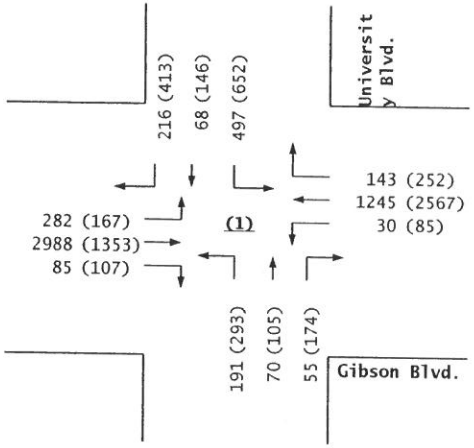
2035
NO BUILD



Trips



2035
BUILD



Gibson Blvd. / University Blvd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Gibson Blvd. / Walker Rd.

INTERSECTION: E-W Street: **Gibson Blvd.** N-S Street: **Walker Rd.**

(2) Due to the close proximity of intersections 1 & 2, some NOBUILD volumes were balanced and won't equal existing + growth

Year of Existing Counts 2015

Horizon Year **2035**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Growth Rates	1.00%			1.00%			1.00%			1.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	125	0	0	0	0	0	5	0	0	0
Background Traffic Growth	0	0	25	0	0	0	0	0	1	0	0	0
Subtotal	0	0	150	0	0	0	0	0	6	0	0	0
UNM Gibson Commercial Development	0	5	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***3,385***	***130***	***0***	***1,528***	***0***	***0***	***0***	***6***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	30	67	0	0	0	0	63	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**3,385**	**160**	**67**	**1,528**	**0**	**0**	**0**	**69**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-46*	*46*	*23*	*-23*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**3,339**	**206**	**90**	**1,505**	**0**	**0**	**0**	**113**	**0**	**0**	**0**

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	24	0	0	0	0	0	21	0	0	0
Background Traffic Growth	0	0	5	0	0	0	0	0	4	0	0	0
Subtotal	0	0	29	0	0	0	0	0	25	0	0	0
UNM Gibson Commercial Development	0	111	0	0	152	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***2,239***	***25***	***0***	***3,095***	***0***	***0***	***0***	***25***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*17.63%*	*39.44%*	*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%*	*39.44%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	27	60	0	0	0	0	54	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**2,239**	**52**	**60**	**3,095**	**0**	**0**	**0**	**79**	**0**	**0**	**0**
Pass-by Trip Adjustments	*0*	*-21*	*21*	*39*	*-39*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**2,218**	**73**	**99**	**3,056**	**0**	**0**	**0**	**97**	**0**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
2015 AM Peak Hr. Volumes	0	0	125	0	0	0	0	0	5	0	0	0
2015 PM Peak Hr. Volumes	0	0	24	0	0	0	0	0	21	0	0	0

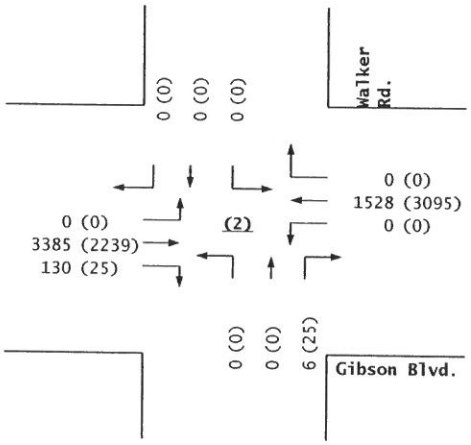
Pass-by Trip Calculations:

AM Pass-by Trips	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Percent Entering	*0.00%*	*-63.10%*	*63.10%*	*30.92%*	*-30.92%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*-46*	*46*	*23*	*-23*	*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%*	*63.10%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*44*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***-46***	***46***	***23***	***-23***	***0***	***0***	***0***	***44***	***0***	***0***	***0***

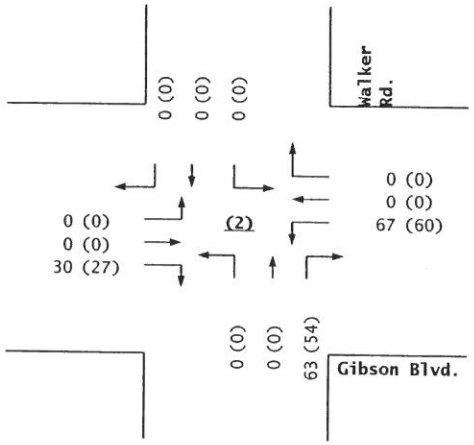
PM Pass-by Trips	Eastbound (Gibson Blvd.)			Westbound (Gibson Blvd.)			Northbound (Walker Rd.)			Southbound (Walker Rd.)		
Percent Entering	*0.00%*	*-31.75%*	*31.75%*	*59.41%*	*-59.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*-21*	*21*	*39*	*-39*	*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%*	*31.75%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***-21***	***21***	***39***	***-39***	***0***	***0***	***0***	***18***	***0***	***0***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

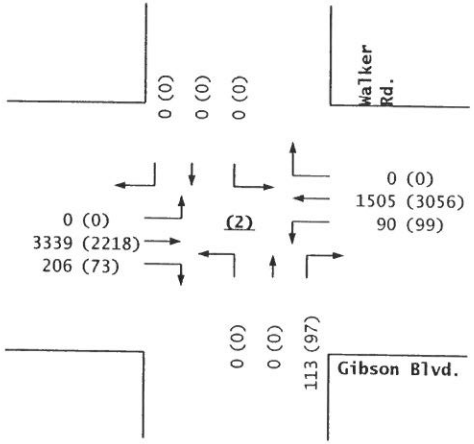
2035
NO BUILD



Trips



2035
BUILD



Gibson Blvd. / Walker Rd.

Gibson / University Restaurants (SE Corner)

Projected Turning Movements Worksheet

Driveway "A" / University Blvd.

INTERSECTION: E-W Street: **Driveway "A"** (3)

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

Year of Existing Counts 2015

Horizon Year **2035**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
Growth Rates	2.61%			2.61%			2.61%			2.61%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***201***	***0***	***0***	***113***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*41.13%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	3	0	94	0	0	3	70	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**3**	**0**	**94**	**0**	**201**	**3**	**70**	**113**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*-3*	*3*	*1*	*-1*	*0*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**4**	**0**	**118**	**0**	**198**	**6**	**71**	**112**	**0**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
	12.79%			12.79%			12.79%			12.79%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***458***	***0***	***0***	***275***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*41.13%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.00%*	*58.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	2	0	80	0	0	3	62	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**2**	**0**	**80**	**0**	**458**	**3**	**62**	**275**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*-3*	*3*	*3*	*-3*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**5**	**0**	**117**	**0**	**455**	**6**	**65**	**272**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**170**	**160**	A.M.	100% Commercial Development
	151	**136**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (University Blvd.)			Southbound (University Blvd.)		
2015 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2015 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

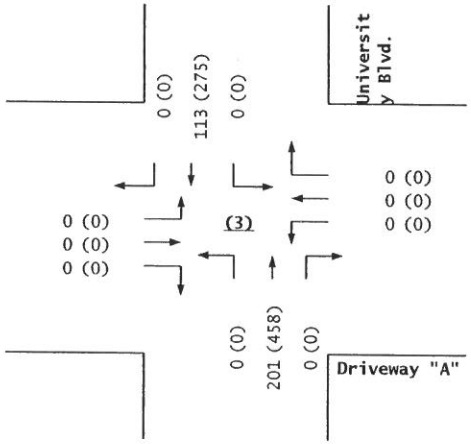
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.07%*	*4.07%*	*1.91%*	*-1.91%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*1*	*-1*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*1.91%*	*0.00%*	*34.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*1*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***1***	***0***	***24***	***0***	***-3***	***3***	***1***	***-1***	***0***

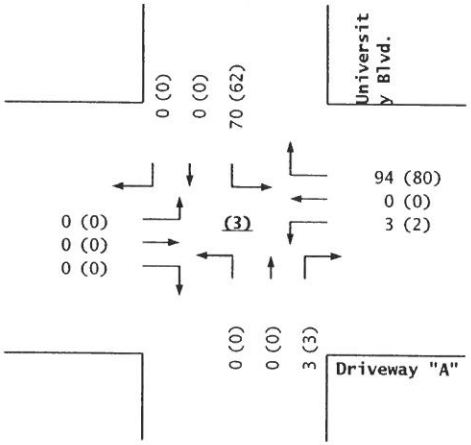
PM Pass-by Trips	*Eastbound (Driveway "A")*			*Westbound (Driveway "A")*			*Northbound (University Blvd.)*			*Southbound (University Blvd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-4.06%*	*4.06%*	*4.78%*	*-4.78%*	*0.00%*
Growth Rate to Apply tc *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-3*	*3*	*3*	*-3*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*4.78%*	*0.00%*	*63.47%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*3*	*0*	*37*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***3***	***0***	***37***	***0***	***-3***	***3***	***3***	***-3***	***0***

	Entering	*Exiting*	
Pass-by Trips	***73***	***69***	*AM*
	65	***58***	*PM*

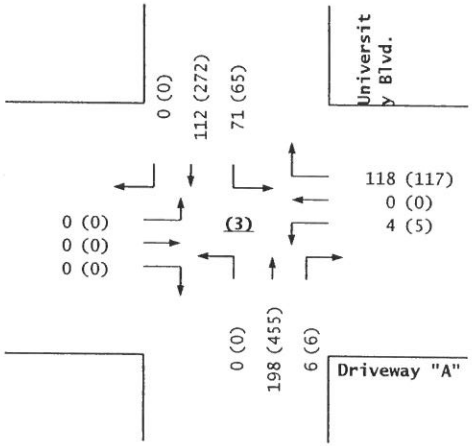
2035
NO BUILD



Trips



2035
BUILD



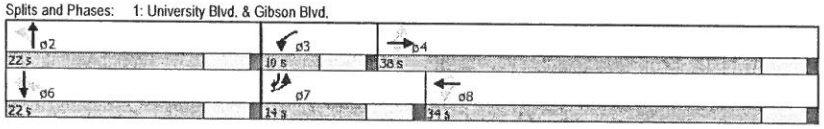
Driveway "A" / University Blvd.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	186	1959	30	26	1090	121	80	21	198	15	88
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	14.0	38.0	38.0	10.0	34.0	34.0	22.0	22.0	22.0	22.0	14.0
Total Split (%)	20.0%	54.3%	54.3%	14.3%	48.6%	48.6%	31.4%	31.4%	31.4%	31.4%	20.0%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	41.1	33.1	33.1	35.1	30.1	30.1	14.4	14.4	14.4	14.4	27.4
Actuated g/C Ratio	0.61	0.49	0.49	0.52	0.45	0.45	0.21	0.21	0.21	0.21	0.41
v/c Ratio	0.54	0.84	0.04	0.11	0.51	0.17	0.29	0.16	0.74	0.04	0.14
Control Delay	12.0	19.4	0.1	7.0	15.1	3.4	24.7	12.0	41.8	20.7	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	19.4	0.1	7.0	15.1	3.4	24.7	12.0	41.8	20.7	9.1
LOS	B	B	A	A	B	A	C	B	D	C	A
Approach Delay		18.5			13.8			19.3		31.1	
Approach LOS		B			B			B		C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 67.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 18.0 — Intersection LOS: B
Intersection Capacity Utilization 72.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	186	1959	30	26	1090	121	80	21	38	198	15	88
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	196	2062	32	27	1147	127	84	22	40	208	16	93
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	396	2409	750	264	2342	729	379	129	235	359	406	484
Arrive On Green	0.09	0.48	0.48	0.08	0.47	0.47	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1267	588	1068	1322	1845	1568
Grp Volume(v), veh/h	196	2062	32	27	1147	127	84	0	62	208	16	93
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1267	0	1656	1322	1845	1568
Q Serve(g_s), s	3.7	24.0	0.7	0.5	10.5	3.1	3.7	0.0	2.0	10.0	0.5	2.9
Cycle Q Clear(g_c), s	3.7	24.0	0.7	0.5	10.5	3.1	4.2	0.0	2.0	12.1	0.5	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	396	2409	750	264	2342	729	379	0	365	359	406	484
V/C Ratio(X)	0.49	0.86	0.04	0.10	0.49	0.17	0.22	0.00	0.17	0.58	0.04	0.19
Avail Cap(c_a), veh/h	479	2505	780	264	2342	729	424	0	424	407	473	541
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	15.3	9.2	11.8	12.3	10.3	22.0	0.0	21.0	25.8	20.4	16.8
Incr Delay (d2), s/veh	1.0	3.1	0.0	0.2	0.2	0.1	0.3	0.0	0.2	1.6	0.0	0.2
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	1.9	11.8	0.3	0.2	4.8	1.4	1.3	0.0	0.9	3.8	0.2	1.3
LnGrp Delay(d),s/veh	9.9	18.3	9.2	12.0	12.4	10.4	22.3	0.0	21.2	27.4	20.4	17.0
LnGrp LOS	A	B	A	B	B	B	C		C	C	C	B
Approach Vol, veh/h		2290			1301			146			317	
Approach Delay, s/veh		17.5			12.2			21.8			24.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		19.6	10.0	36.7		19.6	10.9	35.9
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		17.0	5.0	33.0		17.0	9.0	29.0
Max Q Clear Time (g_c+I1), s		6.2	2.5	26.0		14.1	5.7	12.5
Green Ext Time (p_c), s		1.3	0.0	5.7		0.6	0.2	15.7

Intersection Summary

HCM 2010 Ctrl Delay 16.5
HCM 2010 LOS B

Timings
1: University Blvd. & Gibson Blvd.

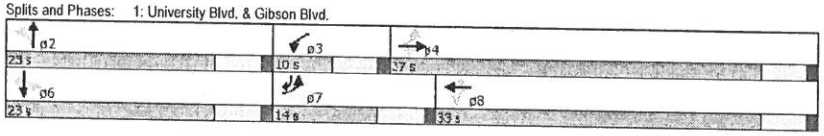
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	186	1976	70	116	1067	121	155	61	211	45	88
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	14.0	37.0	37.0	10.0	33.0	33.0	23.0	23.0	23.0	23.0	14.0
Total Split (%)	20.0%	52.9%	52.9%	14.3%	47.1%	47.1%	32.9%	32.9%	32.9%	32.9%	20.0%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	40.2	32.1	32.1	34.0	29.0	29.0	15.4	15.4	15.4	15.4	28.5
Actuated g/C Ratio	0.60	0.48	0.48	0.50	0.43	0.43	0.23	0.23	0.23	0.23	0.42
v/c Ratio	0.55	0.87	0.09	0.51	0.52	0.17	0.54	0.24	0.77	0.11	0.14
Control Delay	12.6	21.8	1.5	16.4	15.9	3.6	29.8	15.5	43.2	20.8	8.6
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	12.6	21.8	1.5	16.4	15.9	3.6	29.8	15.5	43.2	20.8	8.6
LOS	B	C	A	B	B	A	C	B	D	C	A
Approach Delay		20.3			14.8			24.2		31.4	
Approach LOS		C			B			C		C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 67.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 19.8 — Intersection LOS: B
Intersection Capacity Utilization 75.5% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	186	1976	70	116	1067	121	155	61	38	211	45	88
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	196	2080	74	122	1123	127	163	64	40	222	47	93
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	386	2290	713	248	2203	686	391	267	167	365	464	537
Arrive On Green	0.09	0.45	0.45	0.07	0.44	0.44	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1232	1063	664	1272	1845	1568
Grp Volume(v), veh/h	196	2080	74	122	1123	127	163	0	104	222	47	93
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1232	0	1727	1272	1845	1568
Q Serve(g_s), s	4.0	26.1	1.8	2.5	11.0	3.4	8.0	0.0	3.3	11.5	1.3	2.8
Cycle Q Clear(g_c), s	4.0	26.1	1.8	2.5	11.0	3.4	9.3	0.0	3.3	14.7	1.3	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	386	2290	713	248	2203	686	391	0	434	365	464	537
V/C Ratio(X)	0.51	0.91	0.10	0.49	0.51	0.19	0.42	0.00	0.24	0.61	0.10	0.17
Avail Cap(c_a), veh/h	459	2367	737	248	2203	686	407	0	457	381	488	557
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	17.2	10.6	15.0	13.9	11.7	23.1	0.0	20.3	26.2	19.6	15.7
Incr Delay (d2), s/veh	1.0	5.6	0.1	1.5	0.2	0.1	0.7	0.0	0.3	2.6	0.1	0.2
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	2.0	13.1	0.8	1.3	5.1	1.5	2.8	0.0	1.6	4.3	0.7	1.2
LnGrp Delay(d),s/veh	11.2	22.8	10.7	16.5	14.1	11.9	23.9	0.0	20.6	28.8	19.7	15.8
LnGrp LOS	B	C	B	B	B	B	C		C	C	B	B
Approach Vol, veh/h		2350			1372			267			362	
Approach Delay, s/veh		21.4			14.1			22.6			24.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.1	10.0	36.0		22.1	11.2	34.8
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		18.0	5.0	32.0		18.0	9.0	28.0
Max Q Clear Time (g_c+I1), s		11.3	4.5	28.1		16.7	6.0	13.0
Green Ext Time (p_c), s		1.5	0.0	2.8		0.4	0.2	14.3

Intersection Summary

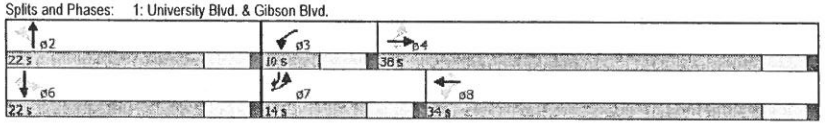
HCM 2010 Ctrl Delay 19.4
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	186	1976	70	26	1067	121	155	61	211	45	88
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	14.0	38.0	38.0	10.0	34.0	34.0	22.0	22.0	22.0	22.0	14.0
Total Split (%)	20.0%	54.3%	54.3%	14.3%	48.6%	48.6%	31.4%	31.4%	31.4%	31.4%	20.0%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	41.2	33.1	33.1	35.0	29.9	29.9	15.1	15.1	15.1	15.1	28.2
Actuated g/C Ratio	0.60	0.49	0.49	0.51	0.44	0.44	0.22	0.22	0.22	0.22	0.41
v/c Ratio	0.54	0.85	0.09	0.11	0.51	0.17	0.55	0.25	0.79	0.12	0.14
Control Delay	11.9	20.4	1.4	7.1	15.4	3.4	31.1	16.1	46.6	21.6	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	20.4	1.4	7.1	15.4	3.4	31.1	16.1	46.6	21.6	9.1
LOS	B	C	A	A	B	A	C	B	D	C	A
Approach Delay		19.1			14.0			25.3		33.7	
Approach LOS		B			B			C		C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 68.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 19.2 — Intersection LOS: B
Intersection Capacity Utilization 73.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	186	1976	70	26	1067	121	155	61	38	211	45	88
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	196	2080	74	27	1123	127	163	64	40	222	47	93
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	388	2333	726	247	2247	700	384	262	164	357	455	527
Arrive On Green	0.09	0.46	0.46	0.07	0.45	0.45	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1232	1063	664	1272	1845	1568
Grp Volume(v), veh/h	196	2080	74	27	1123	127	163	0	104	222	47	93
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1232	0	1727	1272	1845	1568
Q Serve(g_s), s	4.0	26.0	1.8	0.5	11.0	3.4	8.1	0.0	3.3	11.7	1.4	2.9
Cycle Q Clear(g_c), s	4.0	26.0	1.8	0.5	11.0	3.4	9.5	0.0	3.3	15.0	1.4	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	388	2333	726	247	2247	700	384	0	426	357	455	527
V/C Ratio(X)	0.51	0.89	0.10	0.11	0.50	0.18	0.42	0.00	0.24	0.62	0.10	0.18
Avail Cap(c_a), veh/h	460	2411	751	247	2247	700	384	0	426	357	455	527
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	16.9	10.4	13.4	13.6	11.5	23.7	0.0	20.8	26.8	20.1	16.1
Incr Delay (d2), s/veh	1.0	4.6	0.1	0.2	0.2	0.1	0.7	0.0	0.3	3.3	0.1	0.2
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	2.0	12.9	0.8	0.3	5.0	1.5	2.8	0.0	1.6	4.4	0.7	1.3
LnGrp Delay(d),s/veh	11.0	21.5	10.5	13.6	13.8	11.6	24.5	0.0	21.1	30.1	20.2	16.3
LnGrp LOS	B	C	B	B	B	B	C		C	C	C	B
Approach Vol, veh/h		2350			1277			267			362	
Approach Delay, s/veh		20.3			13.6			23.2			25.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.0	10.0	36.9		22.0	11.2	35.8
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		17.0	5.0	33.0		17.0	9.0	29.0
Max Q Clear Time (g_c+I1), s		11.5	2.5	28.0		17.0	6.0	13.0
Green Ext Time (p_c), s		1.3	0.0	3.9		0.0	0.2	15.2

Intersection Summary

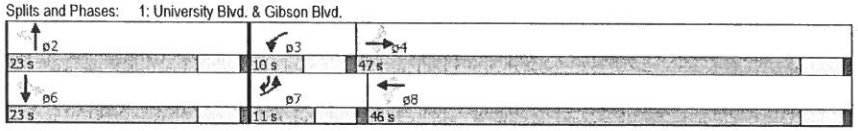
HCM 2010 Ctrl Delay 18.9
HCM 2010 LOS B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	136	1106	57	74	2236	214	75	25	229	43	148
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	11.0	47.0	47.0	10.0	46.0	46.0	23.0	23.0	23.0	23.0	11.0
Total Split (%)	13.8%	58.8%	58.8%	12.5%	57.5%	57.5%	28.8%	28.8%	28.8%	28.8%	13.8%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	48.0	42.0	42.0	46.0	41.0	41.0	17.0	17.0	17.0	17.0	28.0
Actuated g/C Ratio	0.61	0.53	0.53	0.58	0.52	0.52	0.22	0.22	0.22	0.22	0.35
v/c Ratio	0.63	0.43	0.07	0.25	0.89	0.25	0.27	0.23	0.87	0.11	0.27
Control Delay	24.2	12.0	1.1	7.5	23.0	4.3	28.5	12.2	60.4	25.6	16.2
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	24.2	12.0	1.1	7.5	23.0	4.3	28.5	12.2	60.4	25.6	16.2
LOS	C	B	A	A	C	A	C	B	E	C	B
Approach Delay		12.8			21.0			19.7		41.3	
Approach LOS		B			C			B		D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 79
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 20.5 — Intersection LOS: C
Intersection Capacity Utilization 82.6% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	1106	57	74	2236	214	75	25	62	229	43	148
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	142	1152	59	77	2329	223	78	26	65	239	45	154
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	215	2611	813	373	2611	813	335	107	267	327	421	457
Arrive On Green	0.06	0.52	0.52	0.06	0.52	0.52	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1167	468	1170	1288	1845	1568
Grp Volume(v), veh/h	142	1152	59	77	2329	223	78	0	91	239	45	154
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1167	0	1638	1288	1845	1568
Q Serve(g_s), s	2.9	11.3	1.5	1.5	32.7	6.3	4.5	0.0	3.6	14.4	1.5	6.1
Cycle Q Clear(g_c), s	2.9	11.3	1.5	1.5	32.7	6.3	6.0	0.0	3.6	18.0	1.5	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	215	2611	813	373	2611	813	335	0	374	327	421	457
V/C Ratio(X)	0.66	0.44	0.07	0.21	0.89	0.27	0.23	0.00	0.24	0.73	0.11	0.34
Avail Cap(c_a), veh/h	238	2681	835	373	2617	815	335	0	374	327	421	457
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	11.9	9.5	8.2	17.0	10.7	26.5	0.0	24.9	32.4	24.1	22.0
Incr Delay (d2), s/veh	5.8	0.1	0.0	0.3	4.3	0.2	0.4	0.0	0.3	8.2	0.1	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	2.0	5.1	0.6	0.7	15.9	2.8	1.5	0.0	1.7	5.9	0.8	2.7
LnGrp Delay(d),s/veh	23.5	12.0	9.5	8.5	21.4	10.8	26.8	0.0	25.2	40.5	24.2	22.4
LnGrp LOS	C	B	A	A	C	B	C		C	D	C	C
Approach Vol, veh/h		1353			2629			169			438	
Approach Delay, s/veh		13.1			20.1			26.0			32.5	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		23.0	10.0	45.9		23.0	10.0	45.9
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		18.0	5.0	42.0		18.0	6.0	41.0
Max Q Clear Time (g_c+I1), s		8.0	3.5	13.3		20.0	4.9	34.7
Green Ext Time (p_c), s		1.8	0.0	27.3		0.0	0.0	6.2

Intersection Summary

HCM 2010 Ctrl Delay 19.4
HCM 2010 LOS B

Timings
1: University Blvd. & Gibson Blvd.

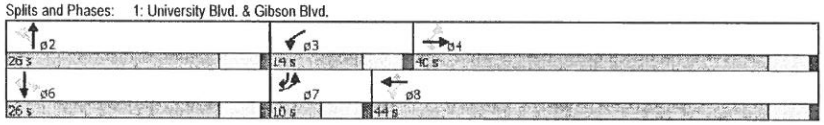
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	136	1121	93	173	2197	214	155	59	240	70	148
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	10.0	40.0	40.0	14.0	44.0	44.0	26.0	26.0	26.0	26.0	10.0
Total Split (%)	12.5%	50.0%	50.0%	17.5%	55.0%	55.0%	32.5%	32.5%	32.5%	32.5%	12.5%
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
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	40.9	35.9	35.9	47.2	39.1	39.1	18.6	18.6	18.6	18.6	28.6
Actuated g/C Ratio	0.53	0.46	0.46	0.61	0.50	0.50	0.24	0.24	0.24	0.24	0.37
v/c Ratio	0.69	0.50	0.12	0.54	0.90	0.26	0.51	0.28	0.84	0.17	0.26
Control Delay	30.8	16.2	3.6	12.7	24.8	5.0	31.9	14.3	53.2	24.0	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	16.2	3.6	12.7	24.8	5.0	31.9	14.3	53.2	24.0	15.1
LOS	C	B	A	B	C	A	C	B	D	C	B
Approach Delay		16.8			22.3			24.2		36.4	
Approach LOS		B			C			C		D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 77.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 22.2 — Intersection LOS: C
Intersection Capacity Utilization 86.8% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	1121	93	173	2197	214	155	59	62	240	70	148
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	142	1168	97	180	2289	223	161	61	65	250	73	154
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	2347	731	361	2426	755	359	217	232	348	490	515
Arrive On Green	0.06	0.47	0.47	0.08	0.48	0.48	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1138	819	872	1247	1845	1568
Grp Volume(v), veh/h	142	1168	97	180	2289	223	161	0	126	250	73	154
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1138	0	1691	1247	1845	1568
Q Serve(g_s), s	3.3	12.8	2.8	4.1	34.2	6.8	10.0	0.0	4.7	15.7	2.4	5.8
Cycle Q Clear(g_c), s	3.3	12.8	2.8	4.1	34.2	6.8	12.4	0.0	4.7	20.4	2.4	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	208	2347	731	361	2426	755	359	0	449	348	490	515
V/C Ratio(X)	0.68	0.50	0.13	0.50	0.94	0.30	0.45	0.00	0.28	0.72	0.15	0.30
Avail Cap(c_a), veh/h	208	2347	731	423	2483	773	359	0	449	348	490	515
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	14.7	12.0	10.9	19.5	12.4	26.9	0.0	23.1	31.2	22.2	19.8
Incr Delay (d2), s/veh	8.7	0.2	0.1	1.1	8.2	0.2	0.9	0.0	0.3	6.9	0.1	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	2.1	5.9	1.2	2.1	17.5	3.0	3.2	0.0	2.2	6.1	1.2	2.5
LnGrp Delay(d),s/veh	26.7	14.8	12.1	12.0	27.7	12.6	27.8	0.0	23.4	38.1	22.4	20.1
LnGrp LOS	C	B	B	B	C	B	C		C	D	C	C
Approach Vol, veh/h		1407			2692			287			477	
Approach Delay, s/veh		15.9			25.4			25.9			29.9	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.0	11.2	41.9		26.0	10.0	43.1
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		21.0	9.0	35.0		21.0	5.0	39.0
Max Q Clear Time (g_c+I1), s		14.4	6.1	14.8		22.4	5.3	36.2
Green Ext Time (p_c), s		1.9	0.1	19.5		0.0	0.0	1.9

Intersection Summary

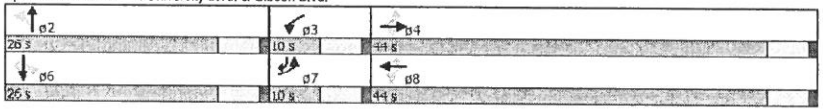
HCM 2010 Ctrl Delay 23.1
HCM 2010 LOS C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	136	1121	93	74	2197	214	155	59	240	70	148
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	10.0	44.0	44.0	10.0	44.0	44.0	26.0	26.0	26.0	26.0	10.0
Total Split (%)	12.5%	55.0%	55.0%	12.5%	55.0%	55.0%	32.5%	32.5%	32.5%	32.5%	12.5%
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
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	44.1	39.1	39.1	44.1	39.1	39.1	18.6	18.6	18.6	18.6	28.6
Actuated g/C Ratio	0.57	0.50	0.50	0.57	0.50	0.50	0.24	0.24	0.24	0.24	0.37
v/c Ratio	0.69	0.46	0.12	0.27	0.90	0.26	0.51	0.28	0.84	0.17	0.26
Control Delay	29.7	13.6	3.0	8.8	24.8	5.0	31.9	14.3	53.2	24.0	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	13.6	3.0	8.8	24.8	5.0	31.9	14.3	53.2	24.0	15.1
LOS	C	B	A	A	C	A	C	B	D	C	B
Approach Delay		14.5			22.6			24.2		36.4	
Approach LOS		B			C			C		D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 77.7
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 21.7 — Intersection LOS: C
Intersection Capacity Utilization 86.8% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	1121	93	74	2197	214	155	59	62	240	70	148
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	142	1168	97	77	2289	223	161	61	65	250	73	154
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	2454	764	344	2454	764	354	215	229	344	484	510
Arrive On Green	0.06	0.49	0.49	0.06	0.49	0.49	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1138	819	872	1247	1845	1568
Grp Volume(v), veh/h	142	1168	97	77	2289	223	161	0	126	250	73	154
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1138	0	1691	1247	1845	1568
Q Serve(g_s), s	3.2	12.4	2.7	1.7	34.2	6.8	10.1	0.0	4.7	16.0	2.4	5.9
Cycle Q Clear(g_c), s	3.2	12.4	2.7	1.7	34.2	6.8	12.6	0.0	4.7	20.7	2.4	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	208	2454	764	344	2454	764	354	0	444	344	484	510
V/C Ratio(X)	0.68	0.48	0.13	0.22	0.93	0.29	0.45	0.00	0.28	0.73	0.15	0.30
Avail Cap(c_a), veh/h	208	2456	765	344	2456	765	354	0	444	344	484	510
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	13.7	11.2	9.6	19.3	12.3	27.5	0.0	23.5	31.7	22.6	20.2
Incr Delay (d2), s/veh	8.9	0.1	0.1	0.3	7.3	0.2	0.9	0.0	0.3	7.6	0.1	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	2.1	5.8	1.2	0.8	17.3	3.0	3.3	0.0	2.2	6.2	1.3	2.6
LnGrp Delay(d),s/veh	27.1	13.8	11.3	10.0	26.6	12.5	28.4	0.0	23.8	39.3	22.8	20.5
LnGrp LOS	C	B	B	A	C	B	C		C	D	C	C
Approach Vol, veh/h		1407			2589			287			477	
Approach Delay, s/veh		15.0			24.9			26.4			30.7	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.0	10.0	44.0		26.0	10.0	44.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		21.0	5.0	39.0		21.0	5.0	39.0
Max Q Clear Time (g_c+I1), s		14.6	3.7	14.4		22.7	5.2	36.2
Green Ext Time (p_c), s		1.9	0.0	23.5		0.0	0.0	2.8

Intersection Summary

HCM 2010 Ctrl Delay 22.6
HCM 2010 LOS C

Timings
1: University Blvd. & Gibson Blvd.

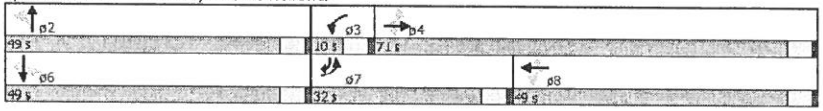
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	282	2971	45	30	1268	143	116	30	484	38	216
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	32.0	71.0	71.0	10.0	49.0	49.0	49.0	49.0	49.0	49.0	32.0
Total Split (%)	24.6%	54.6%	54.6%	7.7%	37.7%	37.7%	37.7%	37.7%	37.7%	37.7%	24.6%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	76.0	66.0	66.0	54.7	49.7	49.7	44.0	44.0	44.0	44.0	70.3
Actuated g/C Ratio	0.58	0.51	0.51	0.42	0.38	0.38	0.34	0.34	0.34	0.34	0.54
v/c Ratio	0.84	1.22	0.06	0.26	0.69	0.23	0.27	0.15	1.17	0.06	0.27
Control Delay	52.1	134.6	2.9	20.5	36.9	11.8	33.3	13.2	136.5	29.6	14.9
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	52.1	134.6	2.9	20.5	36.9	11.8	33.3	13.2	136.5	29.6	14.9
LOS	D	F	A	C	D	B	C	B	F	C	B
Approach Delay		125.7			34.1			24.8		95.4	
Approach LOS		F			C			C		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 94.9 — Intersection LOS: F
Intersection Capacity Utilization 107.6% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	282	2971	45	30	1268	143	116	30	55	484	38	216
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	297	3127	47	32	1335	151	122	32	58	509	40	227
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	330	2557	796	123	2195	683	411	199	361	443	624	704
Arrive On Green	0.11	0.51	0.51	0.04	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1097	589	1067	1289	1845	1568
Grp Volume(v), veh/h	297	3127	47	32	1335	151	122	0	90	509	40	227
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1097	0	1656	1289	1845	1568
Q Serve(g_s), s	11.6	66.0	2.0	1.3	26.5	7.8	11.0	0.0	4.9	39.1	1.9	12.1
Cycle Q Clear(g_c), s	11.6	66.0	2.0	1.3	26.5	7.8	12.9	0.0	4.9	44.0	1.9	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	330	2557	796	123	2195	683	411	0	561	443	624	704
V/C Ratio(X)	0.90	1.22	0.06	0.26	0.61	0.22	0.30	0.00	0.16	1.15	0.06	0.32
Avail Cap(c_a), veh/h	502	2557	796	123	2195	683	411	0	561	443	624	704
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	32.0	16.2	30.6	28.1	22.9	33.4	0.0	30.1	47.9	29.1	23.1
Incr Delay (d2), s/veh	13.5	104.1	0.0	1.1	0.5	0.2	0.4	0.0	0.1	90.7	0.0	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	6.8	54.9	0.9	0.7	12.3	3.4	3.4	0.0	2.3	27.0	1.0	5.3
LnGrp Delay(d),s/veh	37.6	136.1	16.3	31.8	28.6	23.1	33.8	0.0	30.2	138.6	29.1	23.4
LnGrp LOS	D	F	B	C	C	C	C		C	F	C	C
Approach Vol, veh/h		3471			1518			212			776	
Approach Delay, s/veh		126.1			28.1			32.3			99.3	
Approach LOS		F			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		49.0	10.0	71.0		49.0	19.3	61.7
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		44.0	5.0	66.0		44.0	27.0	44.0
Max Q Clear Time (g_c+I1), s		14.9	3.3	68.0		46.0	13.6	28.5
Green Ext Time (p_c), s		4.3	0.0	0.0		0.0	0.7	15.5

Intersection Summary

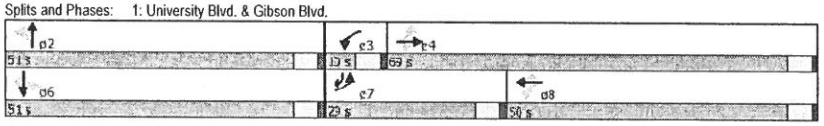
HCM 2010 Ctrl Delay 94.4
HCM 2010 LOS F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	282	2988	85	120	1245	143	191	70	497	68	216
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	29.0	69.0	69.0	10.0	50.0	50.0	51.0	51.0	51.0	51.0	29.0
Total Split (%)	22.3%	53.1%	53.1%	7.7%	38.5%	38.5%	39.2%	39.2%	39.2%	39.2%	22.3%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	74.0	64.0	64.0	53.1	48.1	48.1	46.0	46.0	46.0	46.0	71.9
Actuated g/C Ratio	0.57	0.49	0.49	0.41	0.37	0.37	0.35	0.35	0.35	0.35	0.55
v/c Ratio	0.86	1.27	0.11	1.02	0.70	0.23	0.43	0.21	1.24	0.11	0.26
Control Delay	55.7	154.7	7.5	116.2	37.9	11.9	35.7	22.5	163.1	28.9	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	154.7	7.5	116.2	37.9	11.9	35.7	22.5	163.1	28.9	14.3
LOS	E	F	A	F	D	B	D	C	F	C	B
Approach Delay		142.7			41.7			30.5		110.3	
Approach LOS		F			D			C		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 106.9 — Intersection LOS: F
Intersection Capacity Utilization 115.6% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	282	2988	85	120	1245	143	191	70	55	497	68	216
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	297	3145	89	126	1311	151	201	74	58	523	72	227
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	330	2479	772	123	2106	656	404	340	266	427	653	731
Arrive On Green	0.11	0.49	0.49	0.04	0.42	0.42	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1065	960	752	1241	1845	1568
Grp Volume(v), veh/h	297	3145	89	126	1311	151	201	0	132	523	72	227
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1065	0	1712	1241	1845	1568
Q Serve(g_s), s	12.0	64.0	4.0	5.0	26.6	8.1	20.3	0.0	7.0	39.0	3.4	11.7
Cycle Q Clear(g_c), s	12.0	64.0	4.0	5.0	26.6	8.1	23.7	0.0	7.0	46.0	3.4	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	330	2479	772	123	2106	656	404	0	606	427	653	731
V/C Ratio(X)	0.90	1.27	0.12	1.02	0.62	0.23	0.50	0.00	0.22	1.22	0.11	0.31
Avail Cap(c_a), veh/h	456	2479	772	123	2106	656	404	0	606	427	653	731
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	33.0	17.8	33.8	29.8	24.4	36.2	0.0	29.4	48.0	28.2	21.6
Incr Delay (d2), s/veh	16.4	124.2	0.1	87.9	0.6	0.2	0.9	0.0	0.2	120.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	58.1	1.7	5.5	12.4	3.5	6.1	0.0	3.3	29.6	1.8	5.1
LnGrp Delay(d),s/veh	41.2	157.2	17.8	122.0	30.3	24.5	37.2	0.0	29.6	168.0	28.3	21.9
LnGrp LOS	D	F	B	F	C	C	D		C	F	C	C
Approach Vol, veh/h		3531			1588			333			822	
Approach Delay, s/veh		143.9			37.1			34.2			115.4	
Approach LOS		F			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		51.0	10.0	69.0		51.0	19.6	59.4
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		46.0	5.0	64.0		46.0	24.0	45.0
Max Q Clear Time (g_c+I1), s		25.7	7.0	66.0		48.0	14.0	28.6
Green Ext Time (p_c), s		5.2	0.0	0.0		0.0	0.6	16.3

Intersection Summary

HCM 2010 Ctrl Delay 107.3
HCM 2010 LOS F

Timings
1: University Blvd. & Gibson Blvd.

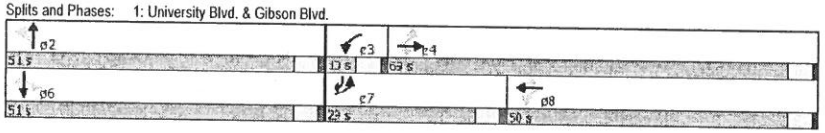
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	282	2988	85	30	1245	143	191	70	497	68	216
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	29.0	69.0	69.0	10.0	50.0	50.0	51.0	51.0	51.0	51.0	29.0
Total Split (%)	22.3%	53.1%	53.1%	7.7%	38.5%	38.5%	39.2%	39.2%	39.2%	39.2%	22.3%
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	74.0	64.0	64.0	53.1	48.1	48.1	46.0	46.0	46.0	46.0	71.9
Actuated g/C Ratio	0.57	0.49	0.49	0.41	0.37	0.37	0.35	0.35	0.35	0.35	0.55
v/c Ratio	0.86	1.27	0.11	0.26	0.70	0.23	0.43	0.21	1.24	0.11	0.26
Control Delay	55.7	154.7	7.5	20.7	37.9	11.9	35.7	22.5	163.1	28.9	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	154.7	7.5	20.7	37.9	11.9	35.7	22.5	163.1	28.9	14.3
LOS	E	F	A	C	D	B	D	C	F	C	B
Approach Delay		142.7			34.9			30.5		110.3	
Approach LOS		F			C			C		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 106.3 — Intersection LOS: F
Intersection Capacity Utilization 113.1% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	282	2988	85	30	1245	143	191	70	55	497	68	216
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	297	3145	89	32	1311	151	201	74	58	523	72	227
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	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	330	2479	772	123	2106	656	404	340	266	427	653	731
Arrive On Green	0.11	0.49	0.49	0.04	0.42	0.42	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	1065	960	752	1241	1845	1568
Grp Volume(v), veh/h	297	3145	89	32	1311	151	201	0	132	523	72	227
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	1065	0	1712	1241	1845	1568
Q Serve(g_s), s	12.0	64.0	4.0	1.3	26.6	8.1	20.3	0.0	7.0	39.0	3.4	11.7
Cycle Q Clear(g_c), s	12.0	64.0	4.0	1.3	26.6	8.1	23.7	0.0	7.0	46.0	3.4	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	330	2479	772	123	2106	656	404	0	606	427	653	731
V/C Ratio(X)	0.90	1.27	0.12	0.26	0.62	0.23	0.50	0.00	0.22	1.22	0.11	0.31
Avail Cap(c_a), veh/h	456	2479	772	123	2106	656	404	0	606	427	653	731
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	33.0	17.8	30.9	29.8	24.4	36.2	0.0	29.4	48.0	28.2	21.6
Incr Delay (d2), s/veh	16.4	124.2	0.1	1.1	0.6	0.2	0.9	0.0	0.2	120.0	0.1	0.2
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	7.3	58.1	1.7	0.7	12.4	3.5	6.1	0.0	3.3	29.6	1.8	5.1
LnGrp Delay(d),s/veh	41.2	157.2	17.8	32.0	30.3	24.5	37.2	0.0	29.6	168.0	28.3	21.9
LnGrp LOS	D	F	B	C	C	C	D		C	F	C	C
Approach Vol, veh/h		3531			1494			333			822	
Approach Delay, s/veh		143.9			29.8			34.2			115.4	
Approach LOS		F			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		51.0	10.0	69.0		51.0	19.6	59.4
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		46.0	5.0	64.0		46.0	24.0	45.0
Max Q Clear Time (g_c+I1), s		25.7	3.3	66.0		48.0	14.0	28.6
Green Ext Time (p_c), s		5.2	0.0	0.0		0.0	0.6	16.3

Intersection Summary

HCM 2010 Ctrl Delay 106.6
HCM 2010 LOS F

Timings
1: University Blvd. & Gibson Blvd.

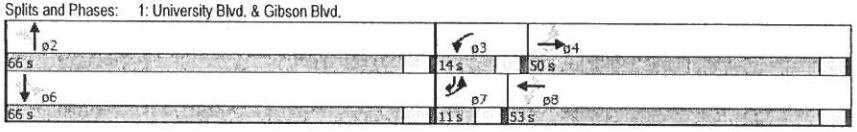
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	167	1338	71	85	2606	252	213	71	641	119	413
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	11.0	50.0	50.0	14.0	53.0	53.0	66.0	66.0	66.0	66.0	11.0
Total Split (%)	8.5%	38.5%	38.5%	10.8%	40.8%	40.8%	50.8%	50.8%	50.8%	50.8%	8.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	51.7	45.7	45.7	56.3	48.0	48.0	61.0	61.0	61.0	61.0	72.0
Actuated g/C Ratio	0.40	0.35	0.35	0.43	0.37	0.37	0.47	0.47	0.47	0.47	0.55
v/c Ratio	1.27	0.79	0.13	0.53	1.46	0.42	0.38	0.30	1.44	0.14	0.49
Control Delay	191.6	41.9	10.3	32.8	242.4	23.6	24.7	11.2	237.8	20.2	19.3
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	191.6	41.9	10.3	32.8	242.4	23.6	24.7	11.2	237.8	20.2	19.3
LOS	F	D	B	C	F	C	C	B	F	C	B
Approach Delay		56.3			217.6			17.5		138.9	
Approach LOS		E			F			B		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.46
Intersection Signal Delay: 146.4 — Intersection LOS: F
Intersection Capacity Utilization 126.2% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	167	1338	71	85	2606	252	213	71	174	641	119	413
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	174	1394	74	89	2715	262	222	74	181	668	124	430
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	1856	578	183	1859	579	419	223	546	467	866	808
Arrive On Green	0.05	0.37	0.37	0.05	0.37	0.37	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	843	476	1164	1109	1845	1568
Grp Volume(v), veh/h	174	1394	74	89	2715	262	222	0	255	668	124	430
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	843	0	1639	1109	1845	1568
Q Serve(g_s), s	6.0	31.4	4.1	4.1	48.0	16.5	26.5	0.0	12.7	48.3	5.0	23.8
Cycle Q Clear(g_c), s	6.0	31.4	4.1	4.1	48.0	16.5	31.4	0.0	12.7	61.0	5.0	23.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.71	1.00		1.00
Lane Grp Cap(c), veh/h	136	1856	578	183	1859	579	419	0	769	467	866	808
V/C Ratio(X)	1.28	0.75	0.13	0.49	1.46	0.45	0.53	0.00	0.33	1.43	0.14	0.53
Avail Cap(c_a), veh/h	136	1856	578	222	1859	579	419	0	769	467	866	808
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	35.8	27.2	28.5	41.0	31.0	28.6	0.0	21.7	43.7	19.6	21.0
Incr Delay (d2), s/veh	168.6	1.8	0.1	2.0	210.1	0.6	1.3	0.0	0.3	205.2	0.1	0.7
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	8.4	14.9	1.8	2.1	58.4	7.2	6.3	0.0	5.8	43.4	2.5	10.4
LnGrp Delay(d),s/veh	203.4	37.6	27.3	30.5	251.1	31.6	29.8	0.0	21.9	248.9	19.7	21.7
LnGrp LOS	F	D	C	C	F	C	C		C	F	B	C
Approach Vol, veh/h		1642			3066			477			1222	
Approach Delay, s/veh		54.7			225.9			25.6			145.7	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		66.0	11.1	52.9		66.0	11.0	53.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		61.0	9.0	45.0		61.0	6.0	48.0
Max Q Clear Time (g_c+I1), s		33.4	6.1	33.4		63.0	8.0	50.0
Green Ext Time (p_c), s		10.8	0.0	11.5		0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay 151.8
HCM 2010 LOS F

Timings
1: University Blvd. & Gibson Blvd.

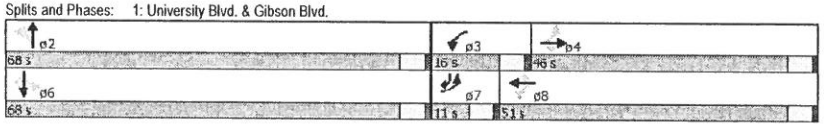
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	167	1353	107	184	2567	252	293	105	652	146	413
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	11.0	46.0	46.0	16.0	51.0	51.0	68.0	68.0	68.0	68.0	11.0
Total Split (%)	8.5%	35.4%	35.4%	12.3%	39.2%	39.2%	52.3%	52.3%	52.3%	52.3%	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
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	47.0	41.0	41.0	57.0	46.0	46.0	63.0	63.0	63.0	63.0	74.0
Actuated g/C Ratio	0.36	0.32	0.32	0.44	0.35	0.35	0.48	0.48	0.48	0.48	0.57
v/c Ratio	1.27	0.89	0.21	0.94	1.50	0.43	0.53	0.34	1.49	0.17	0.48
Control Delay	193.4	50.3	15.0	81.0	260.6	24.9	27.3	15.1	259.8	19.5	18.0
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	193.4	50.3	15.0	81.0	260.6	24.9	27.3	15.1	259.8	19.5	18.0
LOS	F	D	B	F	F	C	C	B	F	B	B
Approach Delay		62.7			229.8			21.4		148.4	
Approach LOS		E			F			C		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.50
Intersection Signal Delay: 153.5 — Intersection LOS: F
Intersection Capacity Utilization 127.8% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	167	1353	107	184	2567	252	293	105	174	652	146	413
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	174	1409	111	192	2674	262	305	109	181	679	152	430
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	1588	495	221	1782	555	415	303	503	459	894	832
Arrive On Green	0.05	0.32	0.32	0.08	0.35	0.35	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	821	625	1037	1074	1845	1568
Grp Volume(v), veh/h	174	1409	111	192	2674	262	305	0	290	679	152	430
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	821	0	1662	1074	1845	1568
Q Serve(g_s), s	6.0	34.6	6.8	9.3	46.0	16.9	43.2	0.0	14.2	48.8	6.0	23.0
Cycle Q Clear(g_c), s	6.0	34.6	6.8	9.3	46.0	16.9	49.2	0.0	14.2	63.0	6.0	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	136	1588	495	221	1782	555	415	0	805	459	894	832
V/C Ratio(X)	1.28	0.89	0.22	0.87	1.50	0.47	0.73	0.00	0.36	1.48	0.17	0.52
Avail Cap(c_a), veh/h	136	1588	495	221	1782	555	415	0	805	459	894	832
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	42.3	32.8	31.8	42.0	32.6	32.6	0.0	20.9	43.5	18.8	19.7
Incr Delay (d2), s/veh	168.6	6.5	0.2	29.0	228.3	0.6	6.6	0.0	0.3	227.3	0.1	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	8.4	17.0	3.0	6.3	58.9	7.4	10.5	0.0	6.5	45.4	3.1	10.0
LnGrp Delay(d),s/veh	207.5	48.8	33.0	60.7	270.3	33.2	39.3	0.0	21.2	270.8	18.9	20.3
LnGrp LOS	F	D	C	E	F	C	D		C	F	B	C
Approach Vol, veh/h		1694			3128			595			1261	
Approach Delay, s/veh		64.1			237.5			30.4			155.0	
Approach LOS		E			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		68.0	16.0	46.0		68.0	11.0	51.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		63.0	11.0	41.0		63.0	6.0	46.0
Max Q Clear Time (g_c+I1), s		51.2	11.3	36.6		65.0	8.0	48.0
Green Ext Time (p_c), s		7.6	0.0	4.4		0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay 159.5
HCM 2010 LOS F

Timings
1: University Blvd. & Gibson Blvd.

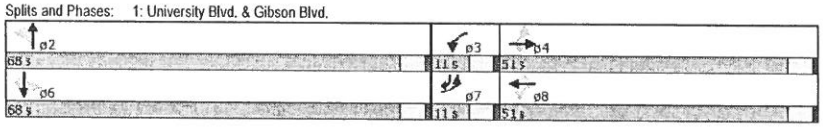
Terry O. Brown, P.E.
4/7/2015

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	167	1353	107	85	2567	252	293	105	652	146	413
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA	pm+ov
Protected Phases	7	4		3	8			2		6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	4	3	8	8	2	2	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	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	10.0
Total Split (s)	11.0	51.0	51.0	11.0	51.0	51.0	68.0	68.0	68.0	68.0	11.0
Total Split (%)	8.5%	39.2%	39.2%	8.5%	39.2%	39.2%	52.3%	52.3%	52.3%	52.3%	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
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	Lag	Lead	Lag	Lag					Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	52.0	46.0	46.0	52.0	46.0	46.0	63.0	63.0	63.0	63.0	74.0
Actuated g/C Ratio	0.40	0.35	0.35	0.40	0.35	0.35	0.48	0.48	0.48	0.48	0.57
v/c Ratio	1.27	0.79	0.18	0.65	1.50	0.43	0.53	0.34	1.49	0.17	0.48
Control Delay	192.9	41.7	12.4	45.2	260.6	24.9	27.3	15.1	259.8	19.5	18.0
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	192.9	41.7	12.4	45.2	260.6	24.9	27.3	15.1	259.8	19.5	18.0
LOS	F	D	B	D	F	C	C	B	F	B	B
Approach Delay		55.3			233.8			21.4		148.4	
Approach LOS		E			F			C		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.50
Intersection Signal Delay: 152.2 — Intersection LOS: F
Intersection Capacity Utilization 127.8% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: University Blvd. & Gibson Blvd.



HCM 2010 Signalized Intersection Summary
1: University Blvd. & Gibson Blvd.

Terry O. Brown, P.E.
4/7/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	167	1353	107	85	2567	252	293	105	174	652	146	413
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	174	1409	111	89	2674	262	305	109	181	679	152	430
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	1782	555	171	1782	555	415	303	503	459	894	832
Arrive On Green	0.05	0.35	0.35	0.05	0.35	0.35	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1757	5036	1568	1757	5036	1568	821	625	1037	1074	1845	1568
Grp Volume(v), veh/h	174	1409	111	89	2674	262	305	0	290	679	152	430
Grp Sat Flow(s),veh/h/ln	1757	1679	1568	1757	1679	1568	821	0	1662	1074	1845	1568
Q Serve(g_s), s	6.0	32.6	6.4	4.2	46.0	16.9	43.2	0.0	14.2	48.8	6.0	23.0
Cycle Q Clear(g_c), s	6.0	32.6	6.4	4.2	46.0	16.9	49.2	0.0	14.2	63.0	6.0	23.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	136	1782	555	171	1782	555	415	0	805	459	894	832
V/C Ratio(X)	1.28	0.79	0.20	0.52	1.50	0.47	0.73	0.00	0.36	1.48	0.17	0.52
Avail Cap(c_a), veh/h	136	1782	555	171	1782	555	415	0	805	459	894	832
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	37.7	29.2	30.2	42.0	32.6	32.6	0.0	20.9	43.5	18.8	19.7
Incr Delay (d2), s/veh	168.6	2.5	0.2	2.8	228.3	0.6	6.6	0.0	0.3	227.3	0.1	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	8.4	15.5	2.8	2.1	58.9	7.4	10.5	0.0	6.5	45.4	3.1	10.0
LnGrp Delay(d),s/veh	204.5	40.2	29.4	33.0	270.3	33.2	39.3	0.0	21.2	270.8	18.9	20.3
LnGrp LOS	F	D	C	C	F	C	D		C	F	B	C
Approach Vol, veh/h		1694			3025			595			1261	
Approach Delay, s/veh		56.4			242.7			30.4			155.0	
Approach LOS		E			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		68.0	11.0	51.0		68.0	11.0	51.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		63.0	6.0	46.0		63.0	6.0	46.0
Max Q Clear Time (g_c+I1), s		51.2	6.2	34.6		65.0	8.0	48.0
Green Ext Time (p_c), s		7.6	0.0	11.3		0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay 158.7
HCM 2010 LOS F

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2070	130	0	1324	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2300	144	0	1471	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2300	144	0	1471	0	6
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 50.0% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2070	130	0	1324	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	Free	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2300	144	0	1471	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	2300	0	2888	1150
Stage 1	-	-	-	-	2300	-
Stage 2	-	-	-	-	588	-
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	-	0	87	-	30	163
Stage 1	-	0	-	-	36	-
Stage 2	-	0	-	-	470	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	87	-	30	163
Mov Cap-2 Maneuver	-	-	-	-	30	-
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	27.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	163	-	87	-
HCM Lane V/C Ratio	0.034	-	-	-
HCM Control Delay (s)	27.9	-	0	-
HCM Lane LOS	D	-	A	-
HCM 95th %tile Q(veh)	0.1	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↱		↑↑↑		↱
Volume (vph)	2024	206	0	1391	0	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2249	229	0	1546	0	124
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2249	229	0	1546	0	124
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 52.7% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2024	206	0	1391	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2249	229	0	1546	0	124

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2249	0	2867	1124
Stage 1	-	-	-	-	2249	-
Stage 2	-	-	-	-	618	-
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	-	-	92	-	31	170
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	453	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	92	-	31	170
Mov Cap-2 Maneuver	-	-	-	-	31	-
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	453	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	68.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	170	-	-	92	-
HCM Lane V/C Ratio	0.732	-	-	-	-
HCM Control Delay (s)	68.9	-	-	0	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	4.6	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2024	206	90	1301	0	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	150		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)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2249	229	100	1446	0	124
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2249	229	100	1446	0	124
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 52.7% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2024	206	90	1301	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2249	229	100	1446	0	124

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2249	0	3027	1124
Stage 1	-	-	-	-	2249	-
Stage 2	-	-	-	-	778	-
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	-	-	*567	-	*83	*451
Stage 1	-	-	-	-	*463	-
Stage 2	-	-	-	-	*373	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*567	-	*68	*451
Mov Cap-2 Maneuver	-	-	-	-	*68	-
Stage 1	-	-	-	-	*463	-
Stage 2	-	-	-	-	*307	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	451	-	-	* 567	-
HCM Lane V/C Ratio	0.276	-	-	0.176	-
HCM Control Delay (s)	16	-	-	12.7	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.6	-

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)	1483	25	0	2676	0	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1529	26	0	2759	0	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1529	26	0	2759	0	22
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 55.0% ICU Level of Service B
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1483	25	0	2676	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1529	26	0	2759	0	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1529	0	2633	764
Stage 1	-	-	-	-	1529	-
Stage 2	-	-	-	-	1104	-
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	-	-	213	-	42	296
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	249	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	213	-	42	296
Mov Cap-2 Maneuver	-	-	-	-	42	-
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	249	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	296	-	-	213	-
HCM Lane V/C Ratio	0.073	-	-	-	-
HCM Control Delay (s)	18.1	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1462	73	0	2736	0	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1507	75	0	2821	0	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1507	75	0	2821	0	96
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 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1462	73	0	2736	0	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1507	75	0	2821	0	96

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1507	0	2635	754
Stage 1	-	-	-	-	1507	-
Stage 2	-	-	-	-	1128	-
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	-	-	219	-	41	300
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	242	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	219	-	41	300
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	242	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	300	-	-	219	-
HCM Lane V/C Ratio	0.32	-	-	-	-
HCM Control Delay (s)	22.5	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1462	73	99	2637	0	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	150		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)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1507	75	102	2719	0	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1507	75	102	2719	0	96
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 54.3% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1462	73	99	2637	0	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1507	75	102	2719	0	96

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1507	0	2799	754
Stage 1	-	-	-	-	1507	-
Stage 2	-	-	-	-	1292	-
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	-	-	*722	-	*75	*575
Stage 1	-	-	-	-	*590	-
Stage 2	-	-	-	-	*197	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*722	-	*64	*575
Mov Cap-2 Maneuver	-	-	-	-	*64	-
Stage 1	-	-	-	-	*590	-
Stage 2	-	-	-	-	*169	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	575	-	-	* 722	-
HCM Lane V/C Ratio	0.167	-	-	0.141	-
HCM Control Delay (s)	12.5	-	-	10.8	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.6	-	-	0.5	-

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)	3385	130	0	1528	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3761	144	0	1698	0	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3761	144	0	1698	0	7
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 75.4% ICU Level of Service D
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	3385	130	0	1528	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3761	144	0	1698	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3761	0	4440	1881
Stage 1	-	-	-	-	3761	-
Stage 2	-	-	-	-	679	-
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	-	-	14	-	4	51
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	14	-	4	51
Mov Cap-2 Maneuver	-	-	-	-	4	-
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	85.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	51	-	-	14	-
HCM Lane V/C Ratio	0.131	-	-	-	-
HCM Control Delay (s)	85.9	-	-	0	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	3319	226	0	1595	0	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3688	251	0	1772	0	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3688	251	0	1772	0	126
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 77.8% ICU Level of Service D
Analysis Period (min) 15

Intersection

Int Delay, s/veh 16.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	3319	226	0	1595	0	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3688	251	0	1772	0	126

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3688	0	4397	1844
Stage 1	-	-	-	-	3688	-
Stage 2	-	-	-	-	709	-
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	-	-	16	-	4	~ 54
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	406	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	16	-	4	~ 54
Mov Cap-2 Maneuver	-	-	-	-	4	-
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	406	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	$ 768.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	54	-	-	16	-
HCM Lane V/C Ratio	2.325	-	-	-	-
HCM Control Delay (s)	$ 768.1	-	-	0	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	12.7	-	-	0	-

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)	3339	206	90	1505	0	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	150		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)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3710	229	100	1672	0	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3710	229	100	1672	0	126
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 78.2% ICU Level of Service D
Analysis Period (min) 15

Intersection

Int Delay, s/veh 5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	3339	206	90	1505	0	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3710	229	100	1672	0	126

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	3710	0	4579	1855
Stage 1	-	-	-	-	3710	-
Stage 2	-	-	-	-	869	-
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	-	-	*147	-	*0	*~ 117
Stage 1	-	-	-	-	*120	-
Stage 2	-	-	-	-	*334	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*147	-	*0	*~ 117
Mov Cap-2 Maneuver	-	-	-	-	*0	-
Stage 1	-	-	-	-	*120	-
Stage 2	-	-	-	-	*107	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	175.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	117	-	-	* 147	-
HCM Lane V/C Ratio	1.073	-	-	0.68	-
HCM Control Delay (s)	175.2	-	-	70.1	-
HCM Lane LOS	F	-	-	F	-
HCM 95th %tile Q(veh)	7.4	-	-	3.9	-

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)	2239	25	0	3095	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2308	26	0	3191	0	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2308	26	0	3191	0	26
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 63.1% ICU Level of Service B
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2239	25	0	3095	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2308	26	0	3191	0	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2308	0	3584	1154
Stage 1	-	-	-	-	2308	-
Stage 2	-	-	-	-	1276	-
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	-	-	86	-	12	162
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	201	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	86	-	12	162
Mov Cap-2 Maneuver	-	-	-	-	12	-
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	201	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	31.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	162	-	-	86	-
HCM Lane V/C Ratio	0.159	-	-	-	-
HCM Control Delay (s)	31.4	-	-	0	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2214	77	0	3155	0	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	0		0	0
Storage Lanes		1	0		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						
Satd. Flow (prot)	5036	1568	0	5036	0	1596
Flt Permitted						
Satd. Flow (perm)	5036	1568	0	5036	0	1596
Link Speed (mph)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2282	79	0	3253	0	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2282	79	0	3253	0	100
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 64.3% ICU Level of Service C
Analysis Period (min) 15

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2214	77	0	3155	0	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2282	79	0	3253	0	100

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2282	0	3583	1141
Stage 1	-	-	-	-	2282	-
Stage 2	-	-	-	-	1301	-
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	-	-	89	-	12	166
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	194	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	89	-	12	166
Mov Cap-2 Maneuver	-	-	-	-	12	-
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	194	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	55
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	-	-	89	-
HCM Lane V/C Ratio	0.602	-	-	-	-
HCM Control Delay (s)	55	-	-	0	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	3.3	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2218	73	99	3056	0	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		115	150		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)	30			30	30	
Link Distance (ft)	1185			622	319	
Travel Time (s)	26.9			14.1	7.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2287	75	102	3151	0	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2287	75	102	3151	0	100
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 62.4% ICU Level of Service B
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2218	73	99	3056	0	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	115	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2287	75	102	3151	0	100

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2287	0	3751	1143
Stage 1	-	-	-	-	2287	-
Stage 2	-	-	-	-	1464	-
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	-	-	*504	-	*15	*401
Stage 1	-	-	-	-	*412	-
Stage 2	-	-	-	-	*158	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*504	-	*12	*401
Mov Cap-2 Maneuver	-	-	-	-	*12	-
Stage 1	-	-	-	-	*412	-
Stage 2	-	-	-	-	*126	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	401	-	-	* 504	-
HCM Lane V/C Ratio	0.249	-	-	0.203	-
HCM Control Delay (s)	16.9	-	-	13.9	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1	-	-	0.8	-

Notes

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	118	136	6	161	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.995			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1602	0	1835	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1602	0	1835	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	139	143	6	169	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	149	0	169	67
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 34.0% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	118	136	6	161	64
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	143	6	169	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	552	146	0	0	149	0
Stage 1	146	-	-	-	-	-
Stage 2	406	-	-	-	-	-
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	493	898	-	-	1426	-
Stage 1	879	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	435	898	-	-	1426	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	5.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	868	1426	-
HCM Lane V/C Ratio	-	-	0.165	0.119	-
HCM Control Delay (s)	-	-	10	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	118	136	6	71	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.995			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1602	0	1835	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1602	0	1835	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	139	143	6	75	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	149	0	75	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 29.0% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	118	136	6	71	65
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	143	6	75	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	364	146	0	0	149	0
Stage 1	146	-	-	-	-	-
Stage 2	218	-	-	-	-	-
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	633	898	-	-	1426	-
Stage 1	879	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	600	898	-	-	1426	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	773	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	884	1426	-
HCM Lane V/C Ratio	-	-	0.162	0.052	-
HCM Control Delay (s)	-	-	9.9	7.7	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	117	159	6	164	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.871		0.995			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1603	0	1835	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1603	0	1835	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	138	166	6	171	167
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	172	0	171	167
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.3% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	117	159	6	164	160
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	138	166	6	171	167

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	677	169	0	0	172	0
Stage 1	169	-	-	-	-	-
Stage 2	508	-	-	-	-	-
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	417	872	-	-	1399	-
Stage 1	858	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	366	872	-	-	1399	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	825	1399	-
HCM Lane V/C Ratio	-	-	0.174	0.122	-
HCM Control Delay (s)	-	-	10.3	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	117	159	6	65	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.871		0.995			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1603	0	1835	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1603	0	1835	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	138	166	6	68	167
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	172	0	68	167
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 29.8% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	117	159	6	65	160
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	138	166	6	68	167

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	471	169	0	0	172	0
Stage 1	169	-	-	-	-	-
Stage 2	302	-	-	-	-	-
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	549	872	-	-	1399	-
Stage 1	858	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	522	872	-	-	1399	-
Mov Cap-2 Maneuver	522	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	712	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	849	1399	-
HCM Lane V/C Ratio	-	-	0.169	0.048	-
HCM Control Delay (s)	-	-	10.1	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	118	198	6	161	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.996			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1602	0	1837	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1602	0	1837	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	139	208	6	169	113
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	214	0	169	113
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 37.2% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	118	198	6	161	107
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	208	6	169	113

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	664	212	0	0	215	0
Stage 1	212	-	-	-	-	-
Stage 2	452	-	-	-	-	-
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	424	826	-	-	1349	-
Stage 1	821	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	371	826	-	-	1349	-
Mov Cap-2 Maneuver	371	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	4.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	794	1349	-
HCM Lane V/C Ratio	-	-	0.181	0.126	-
HCM Control Delay (s)	-	-	10.5	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	118	198	6	71	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.996			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1602	0	1837	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1602	0	1837	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	139	208	6	75	113
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	214	0	75	113
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 32.2% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	118	198	6	71	107
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	139	208	6	75	113

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	474	212	0	0	215	0
Stage 1	212	-	-	-	-	-
Stage 2	262	-	-	-	-	-
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	547	826	-	-	1349	-
Stage 1	821	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	517	826	-	-	1349	-
Mov Cap-2 Maneuver	517	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	3.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	810	1349	-
HCM Lane V/C Ratio	-	-	0.177	0.055	-
HCM Control Delay (s)	-	-	10.4	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	117	455	6	164	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.871		0.998			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1603	0	1841	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1603	0	1841	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	138	474	6	171	272
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	480	0	171	272
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 50.9% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	117	455	6	164	261
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	138	474	6	171	272

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1091	477	0	0	480	0
Stage 1	477	-	-	-	-	-
Stage 2	614	-	-	-	-	-
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	237	586	-	-	1077	-
Stage 1	622	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	199	586	-	-	1077	-
Mov Cap-2 Maneuver	199	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	453	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	543	1077	-
HCM Lane V/C Ratio	-	-	0.264	0.159	-
HCM Control Delay (s)	-	-	14	9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.6	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	117	455	6	65	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.871		0.998			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1603	0	1841	0	1752	1845
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1603	0	1841	0	1752	1845
Link Speed (mph)	30		30			30
Link Distance (ft)	234		418			402
Travel Time (s)	5.3		9.5			9.1
Peak Hour Factor	0.85	0.85	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	138	474	6	68	272
Shared Lane Traffic (%)						
Lane Group Flow (vph)	144	0	480	0	68	272
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
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)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 45.4% ICU Level of Service A
Analysis Period (min) 15

Intersection

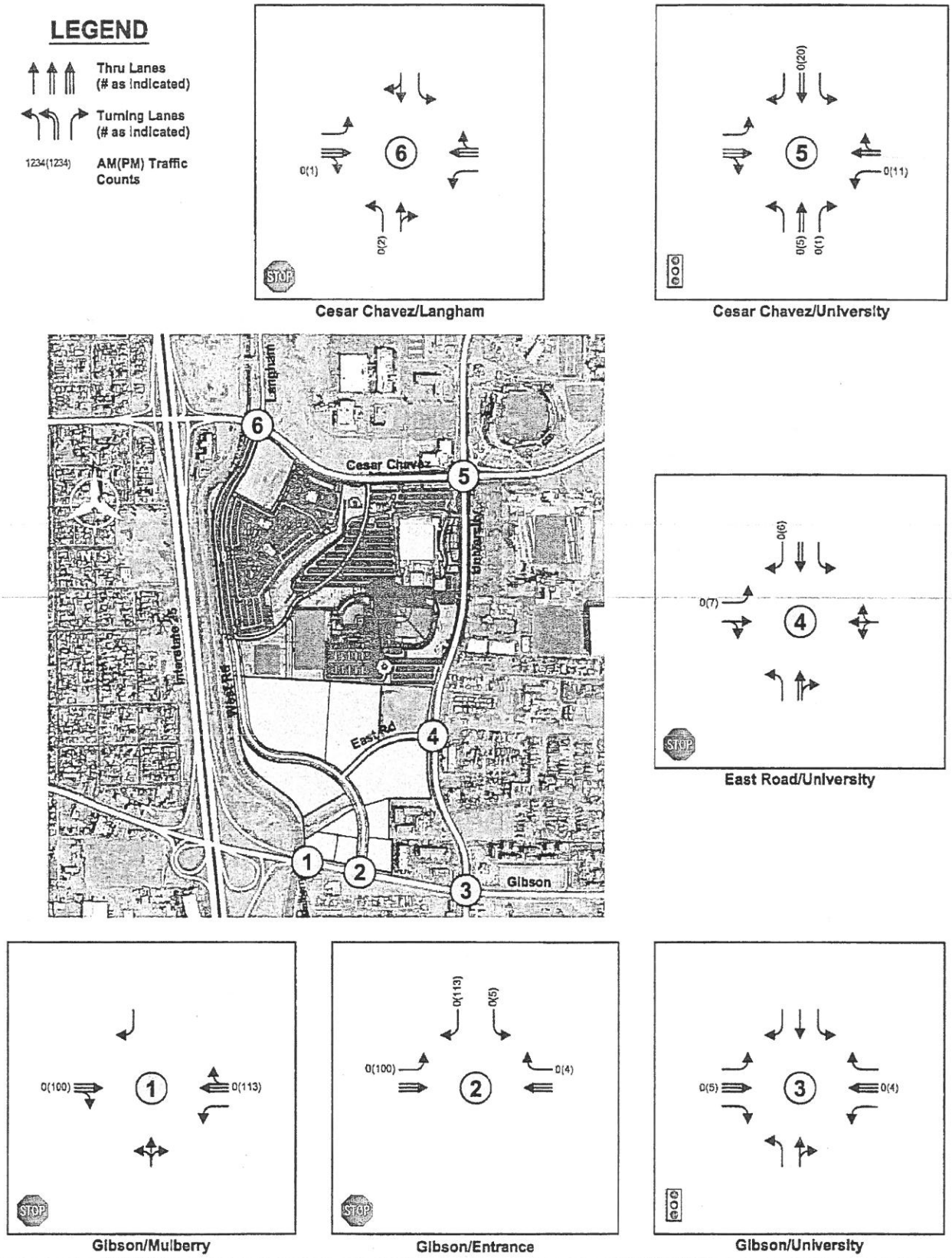
Int Delay, s/veh 2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	117	455	6	65	261
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	138	474	6	68	272

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	884	477	0	0	480	0
Stage 1	477	-	-	-	-	-
Stage 2	407	-	-	-	-	-
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	315	586	-	-	1077	-
Stage 1	622	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	295	586	-	-	1077	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	563	1077	-
HCM Lane V/C Ratio	-	-	0.255	0.063	-
HCM Control Delay (s)	-	-	13.6	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-



Bohannan Huston

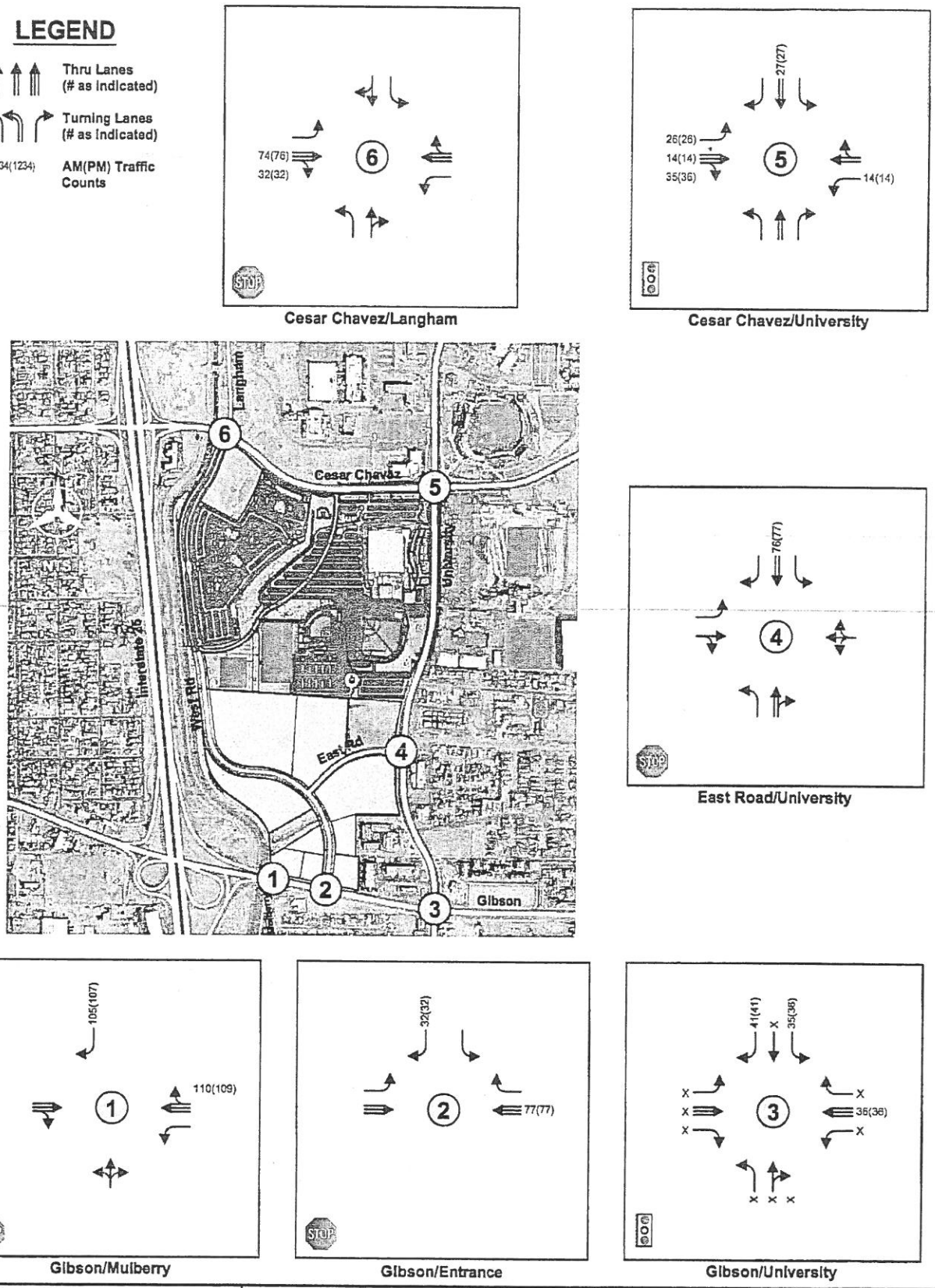
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

UNM Gibson Commercial District
Traffic Impact Analysis

FIGURE 6
Destination Retail TRIP ASSIGNMENT VOLUMES - AM (PM)

P:\20120122\TRANS\Study\Report-Production\Report Figures\Fig6-20120122-Dest_Trip_Dist_Vol.dwg Aug 16, 2011 - 10:20am

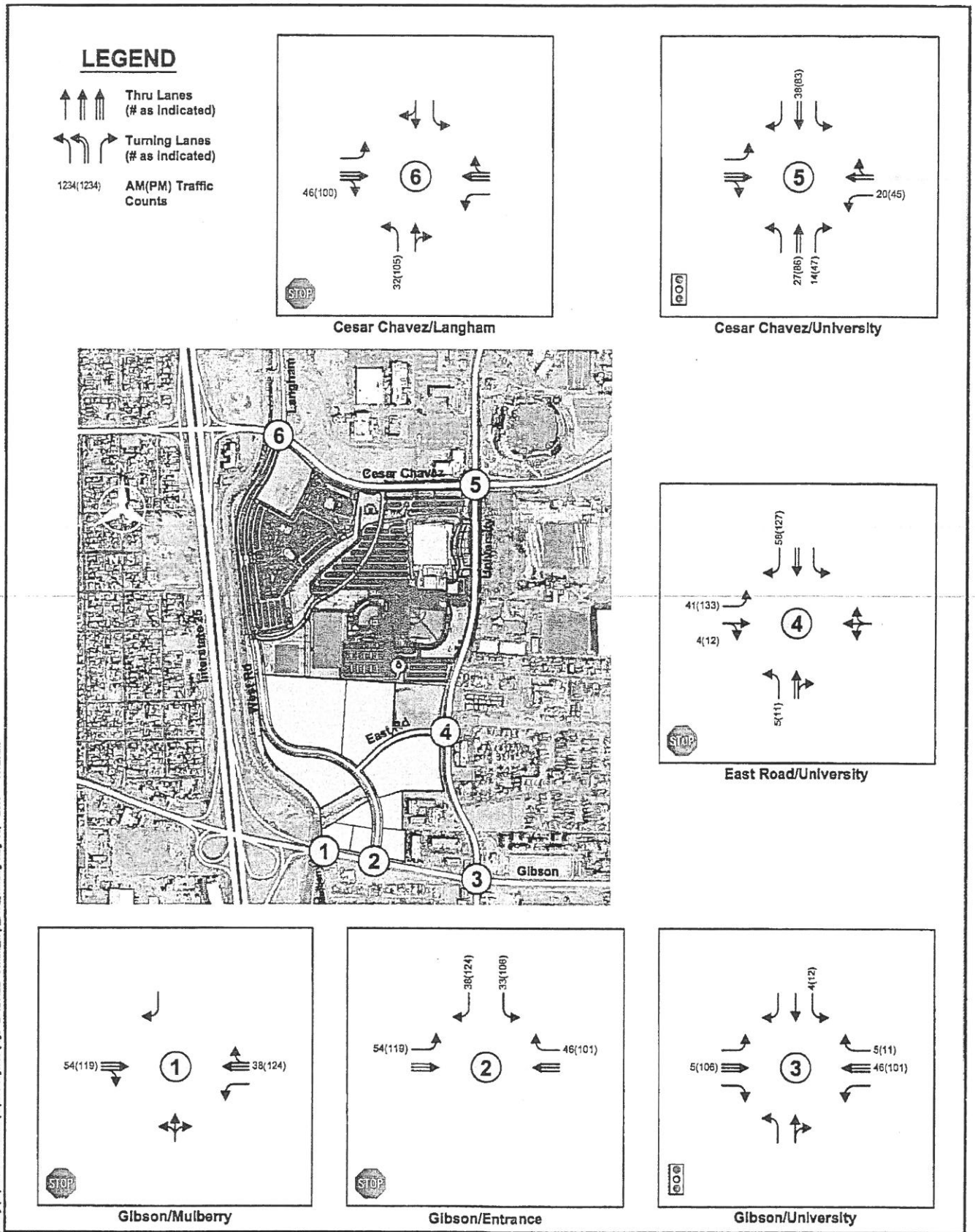


Bohannan Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

UNM Gibson Commercial District
Traffic Impact Analysis

FIGURE 10
Right-In/Right-Out Fast-Food/Conv Mart
TRIP ASSIGNMENT VOLUMES - AM (PM)

P:\20120122\TRANS\Study\Report-Production\Report Figures\Fig10-20120122-FF_RIRO_Trip_Dist_Vol.dwg Aug 18, 2011 - 10:23am



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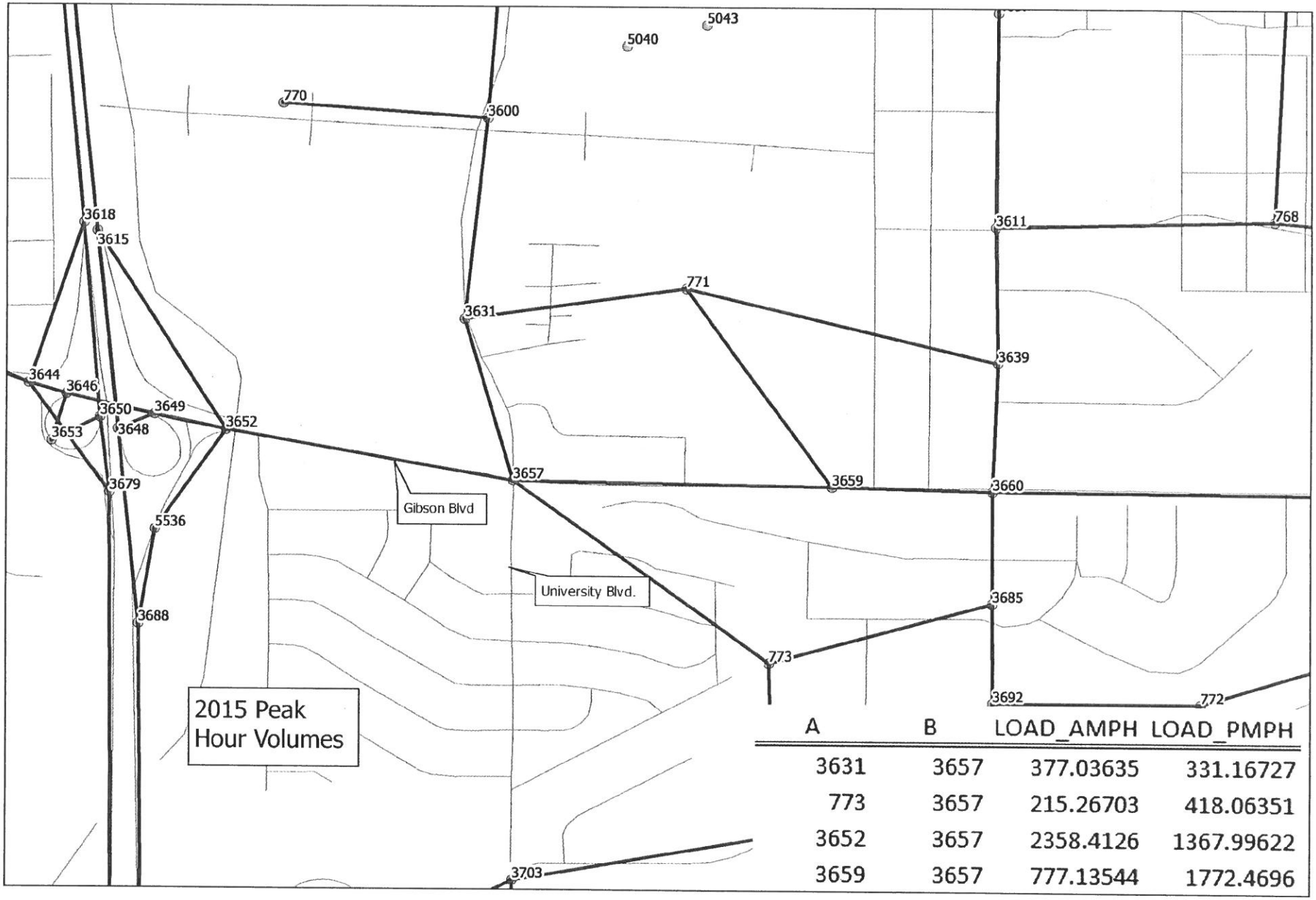
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

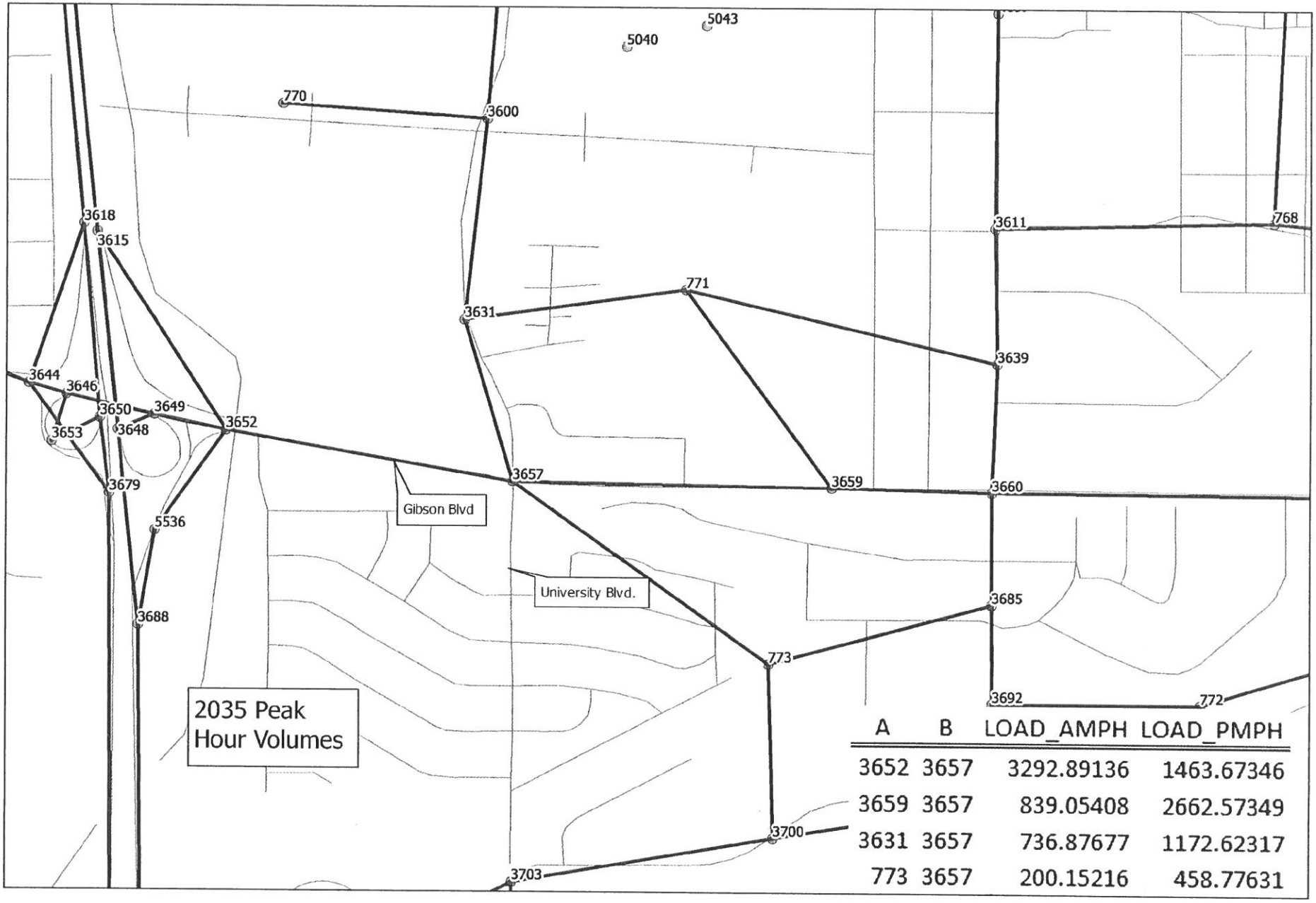
UNM Gibson Commercial District
Traffic Impact Analysis

FIGURE 8
Community Retail TRIP ASSIGNMENT VOLUMES - AM (PM)

P:\20120122\TRANS\Study\Report-Production\Report Figures\Fig8-20120122-Comm_Trip_Dist_Vol.dwg Aug 16, 2011 - 10:21am



A	B	LOAD_AMPH	LOAD_PMPH
3631	3657	377.03635	331.16727
773	3657	215.26703	418.06351
3652	3657	2358.4126	1367.99622
3659	3657	777.13544	1772.4696



A	B	LOAD_AMPH	LOAD_PMPH
3652	3657	3292.89136	1463.67346
3659	3657	839.05408	2662.57349
3631	3657	736.87677	1172.62317
773	3657	200.15216	458.77631

Traffic Count Data Sheet

Year Counts Taken: **2013**

E-W Street: **Gibson Blvd.**
N-S Street: **University Blvd.**

UNSIGNALIZED

Speed Limit (Gibson Blvd.)= **25** MPH
Speed Limit (University Blvd.)= **35** MPH
2/12/13

Begin Time	End Time	Eastbound (Gibson Blvd.)				Westbound (Gibson Blvd.)				Northbound (University Blvd.)				Southbound (University Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~20~~	~~446~~	~~2~~	~~1~~	~~5~~	~~154~~	~~10~~	~~0~~	~~27~~	~~1~~	~~3~~	~~0~~	~~30~~	~~1~~	~~14~~	~~0~~
7:15 AM	7:30 AM	~~35~~	~~491~~	~~4~~	~~0~~	~~3~~	~~177~~	~~27~~	~~0~~	~~18~~	~~6~~	~~7~~	~~0~~	~~36~~	~~1~~	~~17~~	~~1~~
7:30 AM	7:45 AM	**34**	**460**	**1**	**0**	**2**	**186**	**29**	**0**	**13**	**4**	**4**	**0**	**48**	**2**	**25**	**0**
7:45 AM	8:00 AM	**43**	**466**	**17**	**0**	**5**	**292**	**21**	**0**	**30**	**3**	**4**	**0**	**42**	**2**	**16**	**0**
8:00 AM	8:15 AM	**53**	**477**	**6**	**0**	**6**	**251**	**35**	**1**	**19**	**5**	**15**	**0**	**39**	**5**	**21**	**0**
8:15 AM	8:30 AM	**45**	**439**	**4**	**0**	**8**	**259**	**34**	**0**	**14**	**8**	**13**	**0**	**37**	**4**	**12**	**0**
8:30 AM	8:45 AM	~~47~~	~~349~~	~~7~~	~~0~~	~~2~~	~~226~~	~~40~~	~~0~~	~~10~~	~~22~~	~~9~~	~~0~~	~~28~~	~~15~~	~~24~~	~~0~~
8:45 AM	9:00 AM	~~43~~	~~346~~	~~6~~	~~0~~	~~9~~	~~234~~	~~33~~	~~0~~	~~14~~	~~17~~	~~9~~	~~0~~	~~33~~	~~8~~	~~21~~	~~0~~
AM Peak Hour Volumes		**175**	**1842**	**28**	**0**	**21**	**988**	**119**	**1**	**76**	**20**	**36**	**0**	**166**	**13**	**74**	**0**
% of Total Traffic		4.9%	51.8%	0.8%		0.6%	27.8%	3.3%		2.1%	0.6%	1.0%		4.7%	0.4%	0.0%	
% Directional			57.5%				31.7%		**Intersection**		3.7%				5.0%		
AM Peak Hour Factor			*0.95*				*0.89*		**0.95**		*0.85*				*0.84*		

Begin Time	End Time	Eastbound (Gibson Blvd.)				Westbound (Gibson Blvd.)				Northbound (University Blvd.)				Southbound (University Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	**29**	**277**	**15**	**0**	**14**	**530**	**40**	**0**	**11**	**5**	**11**	**0**	**52**	**14**	**34**	**0**
4:15 PM	4:30 PM	**31**	**212**	**17**	**1**	**19**	**490**	**31**	**0**	**19**	**6**	**18**	**0**	**42**	**6**	**21**	**0**
4:30 PM	4:45 PM	**34**	**256**	**12**	**0**	**12**	**547**	**54**	**0**	**14**	**7**	**10**	**0**	**49**	**7**	**21**	**0**
4:45 PM	5:00 PM	**38**	**224**	**12**	**0**	**17**	**487**	**85**	**1**	**16**	**2**	**10**	**0**	**40**	**7**	**42**	**0**
5:00 PM	5:15 PM	~~44~~	~~249~~	~~16~~	~~1~~	~~11~~	~~505~~	~~44~~	~~0~~	~~12~~	~~8~~	~~17~~	~~0~~	~~43~~	~~7~~	~~26~~	~~1~~
5:15 PM	5:30 PM	~~46~~	~~249~~	~~22~~	~~0~~	~~16~~	~~462~~	~~30~~	~~0~~	~~10~~	~~9~~	~~5~~	~~0~~	~~52~~	~~6~~	~~43~~	~~0~~
5:30 PM	5:45 PM	~~39~~	~~237~~	~~10~~	~~0~~	~~14~~	~~512~~	~~57~~	~~1~~	~~14~~	~~2~~	~~14~~	~~0~~	~~57~~	~~11~~	~~44~~	~~0~~
5:45 PM	6:00 PM	~~37~~	~~207~~	~~13~~	~~0~~	~~10~~	~~421~~	~~46~~	~~0~~	~~10~~	~~10~~	~~11~~	~~2~~	~~55~~	~~7~~	~~30~~	~~0~~
PM Peak Hour Volumes		**132**	**969**	**56**	**1**	**62**	**2054**	**210**	**1**	**60**	**20**	**49**	**0**	**183**	**34**	**118**	**0**
% of Total Traffic		3.3%	24.5%	1.4%		1.6%	52.0%	5.3%		1.5%	0.5%	1.2%		4.6%	0.9%	3.0%	
% Directional			29.3%				58.9%		**Intersection**		3.3%				8.5%		
PM Peak Hour Factor			*0.90*				*0.95*		**0.96**		*0.75*				*0.84*		

Traffic Count Data Sheet

Year Counts Taken: **2015**

E-W Street: **Gibson Blvd.**
N-S Street: **Walker Rd.**

UNSIGNALIZED

Speed Limit (Gibson Blvd.)= **45** MPH
Speed Limit (Walker Rd.)= **25** MPH
3/19/15

Begin Time	End Time	Eastbound (Gibson Blvd.)				Westbound (Gibson Blvd.)				Northbound (Walker Rd.)				Southbound (Walker Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	0	471	10	0	0	169	0	0	0	0	2	0	0	0	0	0
7:15 AM	7:30 AM	0	528	15	0	0	207	0	0	0	0	0	0	0	0	0	0
7:30 AM	7:45 AM	0	501	28	0	0	217	0	0	0	0	3	0	0	0	0	0
7:45 AM	8:00 AM	0	513	44	0	0	318	0	0	0	0	2	0	0	0	0	0
8:00 AM	8:15 AM	0	443	38	0	0	292	0	0	0	0	0	0	0	0	0	0
8:15 AM	8:30 AM	0	404	11	1	0	301	0	0	0	0	2	0	0	0	0	0
8:30 AM	8:45 AM	0	362	15	0	0	268	0	0	0	0	2	0	0	0	0	0
8:45 AM	9:00 AM	0	418	22	0	0	276	0	0	0	0	0	0	0	0	0	0
AM Peak Hour Volumes		**0**	**1985**	**125**	**0**	**0**	**1034**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**
% of Total Traffic		0.0%	63.0%	4.0%		0.0%	32.8%	0.0%		0.0%	0.0%	0.2%		0.0%	0.0%	0.0%	
% Directional			67.0%				32.8%		**Intersection**		0.2%				0.0%		
AM Peak Hour Factor			*0.95*				*0.81*		**0.90**		*0.42*						

Begin Time	End Time	Eastbound (Gibson Blvd.)				Westbound (Gibson Blvd.)				Northbound (Walker Rd.)				Southbound (Walker Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	0	328	9	2	0	584	0	0	0	0	5	0	0	0	0	0
4:15 PM	4:30 PM	0	295	5	1	0	540	0	0	0	0	5	0	0	0	0	0
4:30 PM	4:45 PM	0	290	9	0	0	613	0	0	0	0	4	0	0	0	0	0
4:45 PM	5:00 PM	0	307	1	0	0	589	0	0	0	0	7	0	0	0	0	0
5:00 PM	5:15 PM	0	262	10	0	0	560	0	0	0	0	9	0	0	0	0	0
5:15 PM	5:30 PM	0	302	8	0	0	508	0	0	0	0	10	0	0	0	0	0
5:30 PM	5:45 PM	0	309	7	0	0	583	0	0	0	0	7	0	0	0	0	0
5:45 PM	6:00 PM	0	261	6	0	0	477	0	0	0	0	9	0	0	0	0	0
PM Peak Hour Volumes		**0**	**1220**	**24**	**3**	**0**	**2326**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**
% of Total Traffic		0.0%	33.9%	0.7%		0.0%	64.7%	0.0%		0.0%	0.0%	0.6%		0.0%	0.0%	0.0%	
% Directional			34.6%				64.7%		**Intersection**		0.6%				0.0%		
PM Peak Hour Factor			*0.92*				*0.95*		**0.97**		*0.75*						

CITY OF ALBUQUERQUE

STANDARD LETTER

SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO: Terry Brown, P.E., PTOE
P. O. Box 92051
Albuquerque, NM 87199-2051
tobe@swcp.com

MEETING DATE: February 27, 2015

ATTENDEES: Terry Brown, Jeanne Wolfenbarger (COA)

PROJECT: **Chili's, Chick-fil-A, and McDonalds (southeast corner of Gibson and University)**

REQUESTED CITY ACTION: ___Zone Change ___Site Development Plan

X_ Subdivision X_Building Permit ___Sector Plan ___Sector Plan Amendment

___Curb Cut Permit ___Conditional Use ___Annexation ___Site Plan Amendment

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

ASSOCIATED APPLICATION: The development will include a Chili's restaurant and a Chick Filet Restaurant, and it will possibly include a McDonalds. (The development is located at the southeast corner of University Boulevard and Gibson Boulevard.) Access is proposed off of University Boulevard and from the end of Miles Road. In addition, left turn access onto Walker Drive from Gibson Boulevard is desired for the new development.

The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study. As each item identified in the scoping letter is completed, check the appropriate (box).

1. Trip Generation - Use Trip Generation Manual, 9th Edition (Incorporate 30% pass-by traffic)

2. Appropriate study area:

   Signalized Intersections: University / Gibson

   Unsignalized Intersections: University / Walker

   Driveway Intersections: All proposed site drives.

3. Intersection turning movement counts (7-9 a.m. peak hour, 4-6 p.m. peak hour for Chick-fil-A and Chili's only; If McDonalds is included, also include noon peak hour analysis in addition to morning and evening peak hour).

   Intersections that need to be counted by developer: signalized and unsignalized listed above.

4. Type of intersection progression and factors to be used:
   Type III arrival type (see "2010 Highway Capacity Manual" or equivalent as approved by staff). Unless otherwise justified, peak hour factors and % heavy commercial should be

taken directly from the MRCOG turning movement data provided or as calculated from current count data by consultant.

5. Boundaries of area to be used for trip distribution:
City Wide - residential, office or industrial;
2-mile radius - commercial;

6. Basis for trip distribution.
Residential – Use inverse relationship based upon distance and employment. Use employment data from 2035 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2035 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2035 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

7. Traffic Assignment: Logical routing on the major street system.

8. Proposed developments which have been approved but not constructed that are to be included in the analyses: ***UNM South Gibson Commercial District TIS (2011)***

9. Method of intersection capacity analysis - planning or operational (see "2010 Highway Capacity Manual" or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual.
Implementation Year: 2017

10. Traffic conditions for analysis:

    a. Project completion year without proposed development (yr. 2017);

    b. Project completion year with proposed development (yr. 2017).

11. Background traffic growth.
Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.

12. Planned (programmed) traffic improvements.
List planned CIP improvements in study area and projected project implementation year: None at this time.

13. Items to be included in the study:
    a. Intersection analysis.

    b. Arterial LOS analysis;

    c. Recommended street, intersection and signal improvements.

    d. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway signalization and visibility.

    e. Transportation system impacts.

    f. Other mitigating measures.

g. Accident analyses ___yes X no.

h. Weaving analyses ___yes X no.

14. Number of copies of report required for the TIS Study only: 2 hard copies plus electronic copy

15. Separate Access Study will be required to include left turn access from Gibson Boulevard onto Walker Drive along with median cut to allow left turn access. This still requires approval from Debbie Bauman of DMD prior to submitting access study to MRCOG. If the proposal is acceptable, the necessary number of copies will need to be submitted to MRCOG for the review by the Request for Access Committee.

The Traffic Impact Study for this development proposal, project name, shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3924.

Jeanne Wolfenbarger, P.E.
Senior Engineer for
Transportation Development Section

03-05-15
Date

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

cc: TIS Task Force Attendees
Debbie Bauman, Public Works Strategic Program Manager, DMD
file