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Target Commercial Development
(Indian School Rd. / Louisiana Blvd.)

Traffic Impact Study

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FINAL

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Presented to:

City of Albuquerque
Transportation Development Section

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**Target Commercial Development
(Indian School Rd / Louisiana Blvd)
Traffic Impact Study**

Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Target Commercial Development and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide guidelines for measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the City of Albuquerque associated with its review of the Target Commercial Development as shown on the plan on Page A-2 & A-3 in the Appendix of this report.

Study Procedures

A meeting was held with City of Albuquerque personnel on March 9, 2011 to determine the scope of the Traffic Impact Study for this project.

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections utilized in the Synchro (Version 7, Build 773) Transportation System analysis software program as required by the City of Albuquerque. Synchro software deviates from the 2000 Highway Capacity Manual methods in several areas. The results obtained using Synchro software are generally deemed by the reviewing agencies to be close to those based on the 2000 Highway Capacity Manual in most cases.

Intersections targeted for analysis in this study include Indian School Rd / Louisiana Blvd, Indian School Rd / Uptown Loop, Indian School Rd / Pennsylvania St, Indian School Rd / Espanola St, Indian School Rd / "Q" Street, Uptown Loop / Louisiana Blvd and Uptown Loop / Romano's drive. In addition, the proposed driveways for the site will be analyzed.

Description of Proposed Development

The subject area of land discussed in this report is bound on the west by Louisiana Blvd, on the south by Uptown Loop, on the east by Uptown Loop, and on the north by Indian School Rd. See the Target Commercial Development site map on Pages A-2 & A-3 in the Appendix of this report. The total area encompassed by this project is approximately 8 acres. The project consists mostly commercial uses with limited residential uses. A vicinity map showing the location of the project is included on Page A-1 in the Appendix of this report.

The expected year of full implementation of the Target Commercial Development is 2012.

Access to this new site will be off of Indian School Rd, Louisiana Blvd & Uptown Loop

Louisiana Blvd is classified as a Principal Arterial Roadways on the Long Range Roadway Plan for the Albuquerque Urban Area. Louisiana Blvd is generally an eight lane urban facility with raised medians. The posted speed limit along Louisiana Blvd in the vicinity of this project is 35 MPH.

Indian School Rd and Pennsylvania St are classified as a Minor Arterial Roadways on the Long Range Roadway Plan for the Albuquerque Urban Area. Indian School Rd is generally a four lane urban facility with raised medians while Pennsylvania St is a two lane urban facility with curb & gutters. The posted speed limit along Indian School Rd in the vicinity of this project is 35 MPH and on Pennsylvania St it is 30 MPH.

Uptown Loop is classified as a Collector Street on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a two lane urban facility with raised medians & limited access. The posted speed limit along Uptown Loop in the vicinity of this project is 25 MPH.

The Long Range Roadway Plan for the Albuquerque Urban Area Map is included in the report on Page A-6 of the Appendix.

Study Area Conditions

The Target Commercial Development is a proposed mixed use project of commercial & residential uses. It will consist of a single story "raised Target" with at grade parking below the Target and additional neighborhood commercial / retail at street level. In addition, some of the retail will include three levels of residential above the retail. The Target entry, parking & some small commercial will be at the street level while the main Target store will be at street level. Site plans showing the layout are shown in the Appendix on Pages A-2 & A-3.

There is one proposed development in the surrounding area that has been included in this study. It is the Winrock Theater project located at the southeast corner of Winrock Mall which has not yet been constructed, but has been approved.

There are no programmed transportation improvements to the adjacent roadway system at this time. As shown by a portion of the Bikeway System Map below, there are some bike trails or bike lanes in this area, especially on the Uptown Loop Rd. The bike lanes exist on the Loop Rd. east of Louisiana Blvd. Also, Sun Tran has several bus routes in the area, including a Rapid Ride station, RR route 766, and routes 3/157. Route 766 runs between the uptown station and the Central / Unser station, and route 3/157 runs north & south on Louisiana and west to the NW Transit Center from 5:30 AM to 10 PM. See Appendix page A-111.

Existing Facilities

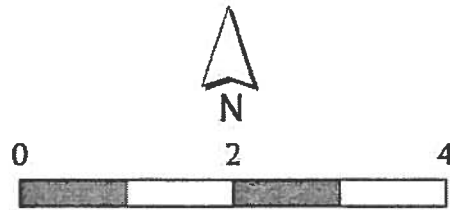
- Trail
- Lane
- Route
- Overcrossing/Tunnel

Proposed Facilities

- - - Trail
- - - Lane
- - - Route
- Overcrossing/Tunnel
- Bikeway Corridor

Existing bikeways are those which are physically on the ground and can be utilized. Proposed facilities are those which have been determined to be desirable and feasible, but have not as yet been implemented. Corridors are intended to show areas where bikeways are under consideration, but the type and feasibility have not been determined.

--- AMPA Boundary



Analysis of Existing Conditions

2009 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-5 of the Appendix.

Current turning movement volumes obtained during the AM and PM Peak Hours for this project were acquired from recent field counts conducted by the consulting engineer conducting the Traffic Impact Study. Existing AM and PM Peak Hour turning movement counts for the year 2011 were provided by the consulting engineer for the following intersections:

*Indian School Rd / Louisiana Blvd
Indian School Rd / Uptown Loop
Indian School Rd / Pennsylvania St
Indian School Rd / Espanola St
Indian School Rd / Q Street
Uptown Loop / Louisiana Blvd
Uptown Loop / Romano's Dr*

Due to the nature of the request associated with this project, there is currently no analysis of existing conditions. Existing conditions for the adjacent transportation system are not pertinent to the application for site plan approval of this project. Additionally, the 2012 NO BUILD Conditions reported in this study should closely approximate the existing 2011 conditions. This study will analyze the projected 2012 NO BUILD and BUILD conditions.

Implementation Year Traffic Analysis

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by Synchro, Version 7 (Build 773) computer modeling software which approximates the 2000 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:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

<u>Average Delay</u> <u>(secs)</u>	<u>Level-of-Service</u>
≤ 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

<u>Average Delay</u> <u>(secs)</u>	<u>Level-of-Service</u>
≤ 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.

The trip generation rate for this project was calculated utilizing data from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* (8th Edition). The following table summarizes the results of that calculation:

Uptown Monroe Site (Indian School Rd. / Louisiana Blvd.) **Trip Generation Data (ITE Trip Generation Manual - 8th Edition)**

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
<i>DESCRIPTION</i>		<i>GROSS</i>	<i>ENTER</i>	<i>EXIT</i>	<i>ENTER</i>	<i>EXIT</i>
Summary Sheet		Units				
Free-Standing Discount Store (815)	160.00	10,767	115	54	400	400
Shopping Center (820)	14.00	1,892	29	19	83	87
Residential Condominium / Townhouse (230)	40.00	290	4	21	19	9
Subtotal		12,949	148	94	502	496
Subtotal Commercial Trips		12,659	144	73	483	487
Pass-by Trip Adjustment (PM Only)	20%	-	-	-	(97)	(97)
Net New Commercial Trips Generated		12,659	144	73	386	390
Residential Trips Generated		290	4	21	19	9
Total New Trips to System for New Plan		12,949	148	94	405	399

As shown, pass-by trips were allocated at 20% for the PM analysis.

The Trip Generation Table and the individual trip generation worksheets for each land use are also found on Pages A-8 thru A-10 in the Appendix of this report.

Besides the intersections previously listed, five access driveways are targeted for analysis in this study. They are labeled as Driveways 'A' through 'D' and the northbound leg of Indian School Rd / Q Street.

The targeted intersections for analysis in this study are:

2012 AM / PM Peak Hour NO BUILD and BUILD Conditions

1. *Indian School Rd / Louisiana Blvd (Signalized)*
2. *Indian School Rd / Uptown Loop (Signalized)*
3. *Indian School Rd / Pennsylvania St (Signalized)*
4. *Indian School Rd / Espanola St (Signalized)*
5. *Indian School Rd / Q Street (Signalized)*
6. *Uptown Loop / Louisiana Blvd (Signalized)*
7. *Driveway 'A' / Louisiana Blvd*
8. *Uptown Loop / Driveway 'B'*
9. *Driveway 'C' / Uptown Loop*
10. *Indian School Rd / Driveway 'D'*
11. *Uptown Loop / Romano's Dr (Unsignalized)*

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

Intersection #1 - Indian School Rd / Louisiana Blvd - Pages A-63 thru A-68

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #1 - Indian School Rd. / Louisiana Blvd.

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
		NO BUILD		BUILD		NO BUILD	
		LOS-Delay		LOS-Delay		LOS-Delay	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
Eastbound - Indian School Rd.							
L	1	D - 47.0	D - 47.0	1	D - 47.4	D - 47.4	
T	2	D - 41.1	D - 41.3	2	D - 48.0	E - 55.3	
R	>	D - 41.1	D - 41.3	>	D - 48.0	E - 55.3	
Westbound - Indian School Rd.							
L	2	C - 30.3	C - 28.3	2	D - 49.5	D - 53.1	
T	2	C - 26.4	C - 29.4	2	C - 34.8	C - 34.8	
R	>	C - 26.4	C - 29.4	>	C - 34.8	C - 34.8	
Northbound - Louisiana Blvd.							
L	2	D - 45.6	D - 46.1	2	E - 65.3	E - 64.7	
T	4	A - 5.9	A - 6.3	4	B - 16.1	C - 21.2	
R	1	B - 11.0	B - 10.8	1	A - 1.6	A - 2.2	
Southbound - Louisiana Blvd.							
L	2	D - 45.8	D - 45.8	2	E - 56.2	E - 56.5	
T	4	B - 18.3	B - 18.4	4	C - 27.1	C - 28.4	
R	1	B - 12.8	B - 12.9	1	B - 13.3	B - 14.2	
Intersection:		B - 19.7	C - 20.3		C - 29.7	C - 33.5	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

Indian School Rd / Louisiana Blvd is a major intersection. The analysis of the intersection of Indian School Rd. / Louisiana Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The average intersection delay is LOS "D" or better in each case, and there are no turning movements that are worse than LOS "E". Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Indian School Rd. / Louisiana Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Target Commercial Center
 Intersection: Indian School Rd / Louisiana Blvd

2012												
Approach		Left Turns			Thru Movements			Right Turns				
Eastbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	20	160	2	97	Cont	0	56	0		
AM NO BUILD Queue		1	20	50	2	99	100	0	57	100		
AM BUILD Queue		1	20	50	2	107	100	0	57	100		
Existing Lane Length		1	112	160	2	379	Cont	0	201	0		
PM NO BUILD Queue		1	114	200	2	389	325	0	209	300		
PM BUILD Queue		1	114	200	2	411	325	0	209	300		
Westbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		2	181	170	2	301	Cont	0	53	0		
AM NO BUILD Queue		2	181	150	2	301	200	0	53	100		
AM BUILD Queue		2	183	150	2	302	200	0	54	100		
Existing Lane Length		2	323	170	2	242	Cont	0	184	0		
PM NO BUILD Queue		2	323	275	2	245	225	0	191	275		
PM BUILD Queue		2	363	300	2	247	225	0	227	325		
Northbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		2	204	180	4	839	Cont	1	162	140		
AM NO BUILD Queue		2	204	150	4	839	300	1	162	200		
AM BUILD Queue		2	209	150	4	845	300	1	162	200		
Existing Lane Length		2	98	180	4	1,440	Cont	1	306	140		
PM NO BUILD Queue		2	101	125	4	1,447	550	1	306	425		
PM BUILD Queue		2	121	125	4	1,473	575	1	306	425		
Southbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		2	54	180	4	813	Cont	1	74	50		
AM NO BUILD Queue		2	54	75	4	813	275	1	74	125		
AM BUILD Queue		2	65	75	4	813	275	1	74	125		
Existing Lane Length		2	218	180	4	1,255	Cont	1	90	50		
PM NO BUILD Queue		2	229	200	4	1,266	500	1	90	150		
PM BUILD Queue		2	291	250	4	1,234	500	1	90	150		

Cycle Length: AM PM
100 130

NOTE: Queue lengths are in feet.

Intersection #2 - Indian School Rd / Uptown Loop - Pages A-69 thru A-72

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #2 - Indian Sch Rd. / Uptown Loop (Winrock)

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
NO BUILD		BUILD		NO BUILD		BUILD	
Lanes	LOS-Delay	LOS-Delay		Lanes	LOS-Delay	LOS-Delay	
Eastbound - Indian Sch Rd.							
L	1	C - 21.7	C - 31.6	1	C - 21.4	C - 22.3	
T	2	D - 37.2	D - 38.7	2	C - 33.0	C - 33.7	
R	1	C - 33.3	D - 42.7	1	C - 28.6	C - 27.1	
Westbound - Indian Sch Rd.							
L	1	A - 2.3	A - 2.6	1	A - 5.6	A - 5.7	
T	2	A - 5.0	A - 4.8	2	B - 11.5	B - 11.7	
R	>	A - 5.0	A - 4.8	>	B - 11.5	B - 11.7	
Northbound - Uptown Loop (Winrock)							
L	1	D - 39.2	D - 38.7	1	D - 39.8	D - 37.7	
T	2	D - 39.8	D - 44.3	2	E - 57.1	D - 44.3	
R	>	D - 39.8	D - 44.3	>	E - 57.1	D - 44.3	
Southbound - Uptown Loop (Winrock)							
L	1	D - 38.0	D - 38.0	1	C - 32.5	C - 32.7	
T	2	D - 43.3	D - 43.3	2	D - 39.2	D - 39.3	
R	>	C - 33.1	C - 33.1	>	C - 27.3	C - 27.4	
Intersection:		B - 15.7	B - 16.8		C - 26.1	C - 25.4	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The analysis of the intersection of Indian School Rd. / Uptown Loop. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Indian School Rd. / Uptown Loop. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Target Commercial Center
 Intersection: Indian School Rd / Uptown Loop

2012												
Approach		Left Turns			Thru Movements			Right Turns				
Eastbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	64	160	2	232	Cont	1	2	120		
AM NO BUILD Queue		1	64	100	2	232	175	1	2	0		
AM BUILD Queue		1	64	100	2	241	200	1	4	25		
Existing Lane Length		1	164	160	2	621	Cont	1	35	120		
PM NO BUILD Queue		1	164	250	2	637	450	1	35	75		
PM BUILD Queue		1	165	250	2	675	450	1	43	100		
Westbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	99	370	2	501	Cont	0	66	0		
AM NO BUILD Queue		1	99	150	2	501	325	0	66	125		
AM BUILD Queue		1	102	150	2	513	350	0	66	125		
Existing Lane Length		1	86	370	2	511	Cont	0	55	0		
PM NO BUILD Queue		1	86	150	2	521	375	0	55	100		
PM BUILD Queue		1	95	150	2	555	400	0	55	100		
Northbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	8	100	2	10	Cont	0	38	0		
AM NO BUILD Queue		1	8	25	2	10	25	0	38	75		
AM BUILD Queue		1	8	25	2	10	25	0	39	75		
Existing Lane Length		1	55	100	2	40	Cont	0	85	0		
PM NO BUILD Queue		1	55	100	2	40	50	0	85	150		
PM BUILD Queue		1	55	100	2	40	50	0	89	150		
Southbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	24	130	2	5	Cont	1	23	125		
AM NO BUILD Queue		1	24	50	2	5	0	1	23	50		
AM BUILD Queue		1	24	50	2	5	0	1	23	50		
Existing Lane Length		1	126	130	2	35	Cont	1	90	125		
PM NO BUILD Queue		1	126	200	2	35	50	1	90	150		
PM BUILD Queue		1	126	200	2	36	50	1	90	150		

Cycle Length: AM PM
 110 120

NOTE: Queue lengths are in feet.

Intersection #3 – Indian School Rd / Pennsylvania St - Pages A-73 thru A-76

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #3 - Indian School Rd. / Pennsylvania St.

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
	NO BUILD		BUILD		NO BUILD		BUILD
	Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay	
Eastbound - Indian School Rd.							
L	1	C - 26.0	B - 16.2	1	A - 9.7	A - 9.5	
T	1	C - 31.5	B - 18.9	1	C - 25.9	C - 24.7	
R	1	A - 4.7	B - 19.3	1	A - 1.2	A - 1.0	
Westbound - Indian School Rd.							
L	1	C - 25.5	C - 25.0	1	C - 23.2	C - 23.3	
T	2	D - 40.0	D - 39.9	2	C - 24.7	C - 24.9	
R	>	D - 40.0	D - 39.9	>	C - 24.7	C - 24.9	
Northbound - Pennsylvania St.							
L	1	B - 12.8	B - 13.0	1	C - 20.6	C - 21.5	
T	1	B - 19.0	B - 19.3	1	C - 33.3	C - 34.7	
R	1	A - 8.8	A - 8.9	1	B - 16.6	B - 17.3	
Southbound - Pennsylvania St.							
L	1	B - 13.8	B - 14.1	1	C - 21.7	C - 22.6	
T	1	C - 21.5	C - 22.0	1	C - 30.9	C - 32.2	
R	1	B - 11.2	B - 11.5	1	B - 16.5	B - 16.5	
Intersection:		C - 25.4	C - 24.7		C - 23.3	C - 23.3	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The analysis of the intersection of Indian School Rd. / Pennsylvania St. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Indian School Rd. / Pennsylvania St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Target Commercial Center
 Intersection: Indian School Rd / Pennsylvania St

2012									
Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	48	160	1	141	Cont	1	72	250
AM NO BUILD Queue	1	48	100	1	141	200	1	72	125
AM BUILD Queue	1	50	100	1	145	200	1	75	125
Existing Lane Length	1	137	160	1	476	Cont	1	134	250
PM NO BUILD Queue	1	137	200	1	477	575	1	134	200
PM BUILD Queue	1	145	225	1	495	575	1	148	225
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	90	250	2	369	Cont	0	38	0
AM NO BUILD Queue	1	98	150	2	400	275	0	41	75
AM BUILD Queue	1	98	150	2	407	275	0	41	75
Existing Lane Length	1	74	250	2	319	Cont	0	39	0
PM NO BUILD Queue	1	98	150	2	346	275	0	42	100
PM BUILD Queue	1	98	150	2	364	275	0	42	100
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	89	130	1	167	Cont	1	56	130
AM NO BUILD Queue	1	89	150	1	167	225	1	56	100
AM BUILD Queue	1	94	150	1	167	225	1	56	100
Existing Lane Length	1	89	130	1	313	Cont	1	99	130
PM NO BUILD Queue	1	89	150	1	318	400	1	110	175
PM BUILD Queue	1	103	175	1	318	400	1	110	175
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	47	100	1	245	Cont	1	132	100
AM NO BUILD Queue	1	50	100	1	263	325	1	142	200
AM BUILD Queue	1	50	100	1	263	325	1	145	200
Existing Lane Length	1	49	100	1	223	Cont	1	81	100
PM NO BUILD Queue	1	53	100	1	247	325	1	87	150
PM BUILD Queue	1	53	100	1	247	325	1	95	150

AM PM
 Cycle Length: 110 120

NOTE: Queue lengths are in feet.

Intersection #6 - Uptown Loop / Louisiana Blvd - Pages A-77 thru A-80

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #6 - Americas Pkwy (Winrock) / Louisiana Blvd.

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
	NO BUILD		BUILD		NO BUILD		BUILD
	Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay	
Eastbound - Americas Pkwy (Winrock)							
L	1	D - 37.1	D - 37.2	1	C - 28.4	C - 28.5	
T	2	D - 42.4	D - 42.8	2	C - 32.0	C - 31.6	
R	1	C - 27.3	C - 27.4	1	C - 29.0	C - 30.5	
Westbound - Americas Pkwy (Winrock)							
L	2	D - 41.8	D - 36.2	2	C - 29.1	C - 28.4	
T	2	D - 44.8	D - 41.8	2	C - 31.8	C - 30.0	
R	1	B - 18.3	C - 32.6	1	C - 35.0	C - 22.3	
Northbound - Louisiana Blvd.							
L	2	D - 42.7	D - 42.7	2	D - 45.7	D - 46.8	
T	4	B - 10.7	B - 11.6	4	C - 20.4	C - 24.3	
R	>	B - 10.7	B - 11.6	>	C - 20.4	C - 24.3	
Southbound - Louisiana Blvd.							
L	2	D - 36.5	D - 35.8	2	D - 45.9	D - 44.8	
T	4	B - 11.4	B - 11.9	4	B - 13.8	B - 16.1	
R	>	B - 11.4	B - 11.9	>	B - 13.8	B - 16.1	
Intersection:		B - 15.9	B - 16.6		B - 19.9	C - 23.1	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The analysis of the intersection of Americas Parkway / Louisiana Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Americas Parkway / Louisiana Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project Target Commercial Center
 Intersection: Am Pkwy / Uptown Lp / Louisiana Blvd

2012

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	20	70	2	5	Cont	1	132	70
AM NO BUILD Queue	1	20	50	2	5	0	1	132	200
AM BUILD Queue	1	24	50	2	8	25	1	132	200
Existing Lane Length	1	31	70	2	16	Cont	1	270	70
PM NO BUILD Queue	1	31	75	2	17	25	1	270	350
PM BUILD Queue	1	42	100	2	25	50	1	270	350
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	42	225	2	4	Cont	1	0	210
AM NO BUILD Queue	2	42	50	2	4	0	1	0	0
AM BUILD Queue	2	88	100	2	8	25	1	0	0
Existing Lane Length	2	83	225	2	3	Cont	1	3	210
PM NO BUILD Queue	2	83	100	2	3	0	1	3	0
PM BUILD Queue	2	278	225	2	22	50	1	4	25
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	284	175	4	1,186	Cont	0	53	0
AM NO BUILD Queue	2	284	225	4	1,186	425	0	53	100
AM BUILD Queue	2	284	225	4	1,278	450	0	66	125
Existing Lane Length	2	135	175	4	1,677	Cont	0	132	0
PM NO BUILD Queue	2	136	125	4	1,687	600	0	132	200
PM BUILD Queue	2	136	125	4	1,939	675	0	167	250
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	2	150	4	989	Cont	0	39	0
AM NO BUILD Queue	2	2	0	4	989	350	0	39	75
AM BUILD Queue	2	2	0	4	991	350	0	39	75
Existing Lane Length	2	19	150	4	1,596	Cont	0	28	0
PM NO BUILD Queue	2	35	50	4	1,596	575	0	28	75
PM BUILD Queue	2	35	50	4	1,604	575	0	28	75

AM
PM
 Cycle Length: 110 120

NOTE: Queue lengths are in feet.

Intersection #5 - Indian School Rd / Q Street - Pages A-85 thru A-90

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #5 - Indian School Rd. / "Q" Street

2012 AM Peak Hour						2012 PM Peak Hour					
BASE GEOMETRY				MIT. GEOM.*		BASE GEOMETRY				MIT. GEOM.*	
		NO BUILD	BUILD	BUILD (Sig)				NO BUILD	BUILD	BUILD (Sig)	
	Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay
Eastbound - Indian School Rd.											
L	1	A - 8.6	A - 8.6	1	A - 5.2	1	B - 10.1	A - 10.0	1	B - 11.9	
T	2	A - 0.0	A - 0.0	2	A - 5.1	2	A - 0.0	A - 0.0	2	B - 10.4	
R	1	A - 0.0	A - 0.0	1	A - 5.1	1	A - 0.0	A - 0.0	1	B - 11.9	
Westbound - Indian School Rd.											
L	1	A - 0.0	A - 8.0	1	A - 4.2	1	A - 0.0	B - 10.4	1	A - 8.1	
T	2	A - 0.0	A - 0.0	2	A - 7.7	2	A - 0.0	A - 0.0	2	B - 11.4	
R	>	A - 0.0	A - 0.0	>	A - 7.7	>	A - 0.0	A - 0.0	>	B - 11.4	
Northbound - "Q" Street											
L	1	A - 0.0	C - 16.9	1	B - 17.0	1	A - 0.0	F - 700	1	B - 17.0	
T	1	A - 0.0	B - 10.2	1	B - 16.1	1	A - 0.0	B - 13.4	1	B - 11.9	
R	>	A - 0.0	B - 10.2	>	B - 16.1	>	A - 0.0	B - 13.4	>	B - 11.9	
Southbound - "Q" Street											
L	>	A - 9.7	B - 10.2	>	B - 16.3	>	C - 19.2	E - 43.0	>	B - 13.1	
T	1	A - 0.0	B - 10.2	1	B - 16.3	1	A - 0.0	E - 43.0	1	B - 13.1	
R	>	A - 9.7	B - 10.2	>	B - 16.3	>	C - 19.2	E - 43.0	>	B - 13.1	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Indian School Rd. / Q Street is an existing unsignalized tee intersection with the stop sign controlling southbound traffic. It is located approximately midway along Indian School Rd. between Louisiana Blvd. and Uptown Loop Rd. NE. The northbound leg of the intersection will be built with this project. Analysis of the unsignalized Indian School Rd. / Q Street intersection indicates that the northbound left turn movement at the intersection will experience long delays for the PM Peak Hour conditions considered in this report. Mitigation of the unacceptable levels-of-service and delays forecast at this intersection can be mitigated by constructing a two-phase traffic signal at Indian School Rd. / Q St. operating a half-cycle length. Additionally, the intersection is projected to meet the Peak Hour Warrant for a new traffic signal (see Page A-103 in the Appendix) based on the 2012 PM Peak Hour BUILD volumes. The signals at Indian School Rd. / Louisiana Blvd., Indian School Rd. / Q St., and Indian School Rd. / Uptown Loop Rd. should be interconnected to effect progression and queuing control through metering measures implemented into the timing plan. Of concern are the queuing lengths on

Indian School Rd. from Louisiana Blvd. to Uptown Loop Rd. The signal spacing between the three signals would be approximate 375 feet (centerline to centerline). Thus available queuing distance would be approximately 300 feet before queuing would extend into the adjacent signalized intersection under this plan. The calculated westbound left turn queue length is 325 feet based on 95th percentile Poisson's arrival method. The calculated westbound left turn queue length is 247 feet based on 95th percentile Synchro method. (NOTE: the 247 feet has a flag indicating that 95th percentile volume exceeds capacity, queue may be longer). The results of this report indicate that there may be minor queuing problems for the westbound left turn movement on Indian School Rd. at Louisiana during the PM Peak Hour period. Additionally, the calculated eastbound thru queue length on Indian School Rd. at Uptown Loop is 350 feet long during the AM Peak Hour period and 400 feet long during the PM Peak Hour period. There may also be minor queuing problems for the eastbound thru volumes on Indian School Rd. at Uptown Loop Rd. NE during the AM and PM Peak Hour periods. These queuing issues will be present whether Q St. is signalized or not.

As a result of communicating this data with the City of Albuquerque Traffic Operations Section of the Municipal Development Department, it has been determined that a traffic signal will not be permitted at Indian School Rd. / Ave. "Q".

The results of the queuing analysis for the intersection of Indian School Rd. / "Q" St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Target Commercial Center
 Intersection: Indian School Rd / Q St

2012												
Approach		Left Turns			Thru Movements			Right Turns				
Eastbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	61	85	2	282	Cont	0	0	0		
AM NO BUILD Queue		1	61	75	2	282	125	0	0	0		
AM BUILD Queue		1	61	75	2	282	125	0	19	25		
Existing Lane Length		1	72	85	2	703	Cont	0	0	0		
PM NO BUILD Queue		1	72	75	2	719	275	0	0	0		
PM BUILD Queue		1	72	75	2	704	275	0	100	100		
Westbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	0	110	2	523	Cont	0	10	0		
AM NO BUILD Queue		1	0	0	2	523	200	0	10	25		
AM BUILD Queue		1	0	0	2	523	200	0	10	25		
Existing Lane Length		1	0	110	2	749	Cont	0	86	0		
PM NO BUILD Queue		1	0	0	2	759	300	0	86	100		
PM BUILD Queue		1	16	25	2	743	275	0	86	100		
Northbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		1	0	200	1	0	Cont	0	0	0		
AM NO BUILD Queue		1	0	0	1	0	0	0	0	0		
AM BUILD Queue		1	20	25	1	0	0	0	10	25		
Existing Lane Length		1	0	200	1	0	Cont	0	0	0		
PM NO BUILD Queue		1	0	0	1	0	0	0	0	0		
PM BUILD Queue		1	166	150	1	1	0	0	58	75		
Southbound		# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
Existing Lane Length		0	2	0	1	0	Cont	0	31	0		
AM NO BUILD Queue		0	2	0	1	0	0	0	31	50		
AM BUILD Queue		0	2	0	1	0	0	0	31	50		
Existing Lane Length		0	19	0	1	0	Cont	0	105	0		
PM NO BUILD Queue		0	19	25	1	0	0	0	105	100		
PM BUILD Queue		0	19	25	1	1	0	0	105	100		

AM PM
 Cycle Length: 50 60 (Half Cycle)

NOTE: Queue lengths are in feet.

Note that the Synchro Queueing Report (Page A-87a and A-90a) indicates the maximum queue length northbound is 86 feet (95th Percentile).

Intersection #7 - Driveway 'A' / Louisiana Blvd - Pages A-91 thru A-92

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #7 - Driveway "A" / Louisiana Blvd.

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
		NO BUILD		BUILD		NO BUILD	
		Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay
Westbound - Driveway "A"							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
R	1	A - 0.0	A - 8.8	1	A - 0.0	A - 10.0	
Northbound - Louisiana Blvd.							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	4	A - 0.0	A - 0.0	4	A - 0.0	A - 0.0	
R	1	A - 0.0	A - 0.0	1	A - 0.0	A - 0.0	
Southbound - Louisiana Blvd.							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	4	A - 0.0	A - 0.0	4	A - 0.0	A - 0.0	
R	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Driveway 'A' / Louisiana Blvd. is a proposed unsignalized right-in, right-out tee intersection with the stop sign controlling westbound traffic. It is located approximately midway on Louisiana Blvd. between Americas Parkway (Winrock) and Indian School Rd. on the west side of this project. There is no eastbound leg of the intersection. Also, Louisiana Blvd. is an eight-lane two-way roadway. Analysis of the unsignalized Driveway 'A' / Louisiana Blvd intersection indicates that the operation of the intersection will be acceptable for the AM and PM Peak Hour conditions considered in this report.

Since the northbound PM volumes are greater than 60 and the posted speed limit on Louisiana Blvd. in this area is 35 MPH, City of Albuquerque standards warrant a deceleration lane of 100' plus transition. All design and construction of improvements on Louisiana Blvd. and on Driveway 'A' should meet the minimum requirements of the City of Albuquerque *Development Process Manual*.

Intersection #8 – Uptown Loop / Driveway 'B' - Pages A-93 thru A-94

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #8 - Uptown Loop (Winrock) / Driveway "B"

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
NO BUILD		BUILD		NO BUILD		BUILD	
Lanes	LOS-Delay	LOS-Delay		Lanes	LOS-Delay	LOS-Delay	
Eastbound - Uptown Loop (Winrock)							
L	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
Westbound - Uptown Loop (Winrock)							
L	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
Southbound - Driveway "B"							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
R	1	A - 0.0	A - 8.7	1	A - 0.0	A - 9.8	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Uptown Loop / Driveway 'B' is a proposed right-in, right-out unsignalized tee intersection with the stop sign controlling southbound traffic. The preceding table demonstrates that the intersection of Uptown Loop / Driveway 'B' will operate at satisfactory levels-of-service for all conditions analyzed in this study. No recommendations are made for this intersection.

Intersection #9 - Driveway 'C' / Uptown Loop - Pages A-95 thru A-96

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #9 - Driveway "C" / Uptown Loop

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
		NO BUILD	BUILD			NO BUILD	BUILD
	Lanes	LOS-Delay	LOS-Delay		Lanes	LOS-Delay	LOS-Delay
Eastbound - Driveway "C"							
L	>	A - 0.0	A - 8.9	>	A - 0.0	A - 9.7	
T	1	A - 0.0	A - 0.0	1	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 8.9	>	A - 0.0	A - 9.7	
Northbound - Uptown Loop							
L	1	A - 0.0	A - 3.7	1	A - 0.0	A - 3.6	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
Southbound - Uptown Loop							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Driveway 'C' / Uptown Loop is a proposed unsignalized full access tee intersection with the stop sign controlling eastbound traffic. The preceding table demonstrates that the projected levels-of-service and associated delays at the intersection of Driveway 'C' / Uptown Loop. are satisfactory for all cases analyzed during the 2012 AM Peak Hour period and marginally satisfactory for the 2012 PM Peak Hour period. No recommendation is made for this intersection.

Intersection #10 – Indian School Rd / Driveway 'D' - Pages A-97 thru A-98

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #10 - Indian School Rd. / Driveway "D"

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
		NO BUILD		BUILD		NO BUILD	
		LOS-Delay		LOS-Delay		LOS-Delay	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
Eastbound - Indian School Rd.							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
Westbound - Indian School Rd.							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
Northbound - Driveway "D"							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
R	1	A - 0.0	A - 9.4	1	A - 0.0	B - 12.0	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Indian School Rd / Driveway "D" is proposed to be an unsignalized tee intersection with the stop sign controlling northbound traffic. It will be a right-in, right-out only driveway. Also, Indian School Rd is a four lane roadway. Analysis of the unsignalized Indian School Rd. / Driveway "D" indicates that the operation of the intersection will be acceptable for all conditions considered in this report.

Intersection #11 - Uptown Loop / Romano's drive - Pages A-99 thru A-102

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: #11 - Indian School Rd. / Romano's Driveway

2012 AM Peak Hour				2012 PM Peak Hour			
BASE GEOMETRY				BASE GEOMETRY			
NO BUILD		BUILD		NO BUILD		BUILD	
Lanes	LOS-Delay	LOS-Delay		Lanes	LOS-Delay	LOS-Delay	
Eastbound - Indian School Rd.							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	>	A - 0.0	A - 0.0	>	A - 0.0	A - 0.0	
Westbound - Indian School Rd.							
L	0	A - 7.5	A - 7.5	0	A - 8.0	A - 8.0	
T	2	A - 0.0	A - 0.0	2	A - 0.0	A - 0.0	
R	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
Northbound - Romano's Driveway							
L	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
T	0	A - 0.0	A - 0.0	0	A - 0.0	A - 0.0	
R	1	A - 8.6	A - 8.6	1	A - 9.1	A - 9.1	

NOTE: > denotes a shared thru/right and / or thru/left turn lane.

The intersection of Uptown Loop / Romano's drive is an existing unsignalized right-in, right-out, left-in tee intersection with the stop sign controlling northbound traffic. It is a right-in, right-out left-in only driveway. There is no southbound leg of the intersection. Also, Uptown Loop is a two lane roadway. Analysis of the unsignalized Uptown Loop / Romano's drive indicates that the operation of the intersection will be acceptable for all conditions considered in this report.

Summary of Deficiencies, Anticipated Impacts, and Recommendations

The implementation of the proposed Target Commercial Development will generate a moderate volume of new traffic on the adjacent transportation system and thus, will have a moderate impact at the intersections and roadways analyzed in this study. The existing capacity of the intersections analyzed in this study is sufficient to accommodate these new volumes of traffic. The projected 2012 BUILD analysis of the signalized and unsignalized intersections demonstrate that they would operate at acceptable levels-of-service with acceptable delays. Queuing may be an issue along the segment of Indian School Rd. between Louisiana Blvd. and Uptown Loop Rd. (Winrock) due to close spacing of existing driveways.

Access to the proposed Target development consists of a new right-in, right-out driveway (Driveway "A") on the east side of Louisiana Blvd. approximately midway between Uptown Loop Rd. (Winrock) and Indian School Rd., a new full access driveway (aligned with "Q" St.) on the south side of Indian School Rd. approximately midway between Louisiana Blvd. and Uptown Loop Rd. (Winrock), a new right-in, right-out driveway (Driveway "B") located on the north side of Uptown Loop Rd. (Winrock) approximately 350 feet east of Louisiana Blvd. (centerline to centerline), a full access driveway (Driveway "C") located along the west side of Uptown Loop Rd. (Winrock) approximately 430 feet south of Indian School Rd. (centerline to centerline), and a new right-out only driveway (Driveway "D") located along the south side of Indian School Rd. approximately 130 feet east of "Q" St. (centerline to centerline).

Recommendations for improvements to the adjacent transportation system include:

Project Access is recommended as summarized below:

Driveway "A" – construct a new right-in, right-out unsignalized driveway located along the east side of Louisiana Blvd. approximately midway between Uptown Loop Rd. (Winrock) and Indian School Rd. A northbound right turn deceleration lane is warranted on Louisiana Blvd. at Driveway "A".

"Q" St. Driveway – construct a new full access driveway on the south side of Indian School Rd. to align with existing "Q" St. This report recommends that the new "Q" St. Driveway be unsignalized full access. The new south leg of this driveway should be constructed to implement a northbound left turn lane and a northbound thru/right turn lane for a distance of approximately 100 feet.

Driveway "B" – construct a new right-in, right-out unsignalized driveway along the north side of Uptown Loop Rd. (Winrock) approximately 350 feet east of Louisiana Blvd. (centerline to centerline).

Driveway "C" – construct a new full access unsignalized driveway along the west side of Uptown Loop Rd. (Winrock) approximately 430 feet south of Indian School Rd. (centerline to centerline). Driveway "C" should be constructed with a minimum of two exiting lanes on one entering lane. One of the exiting lanes should be designated as a left turn only lane.

Driveway "D" – construct a new right-in, right-out only unsignalized driveway along the south side of Indian School Rd. approximately 130 feet east of "Q" St. (centerline to centerline).

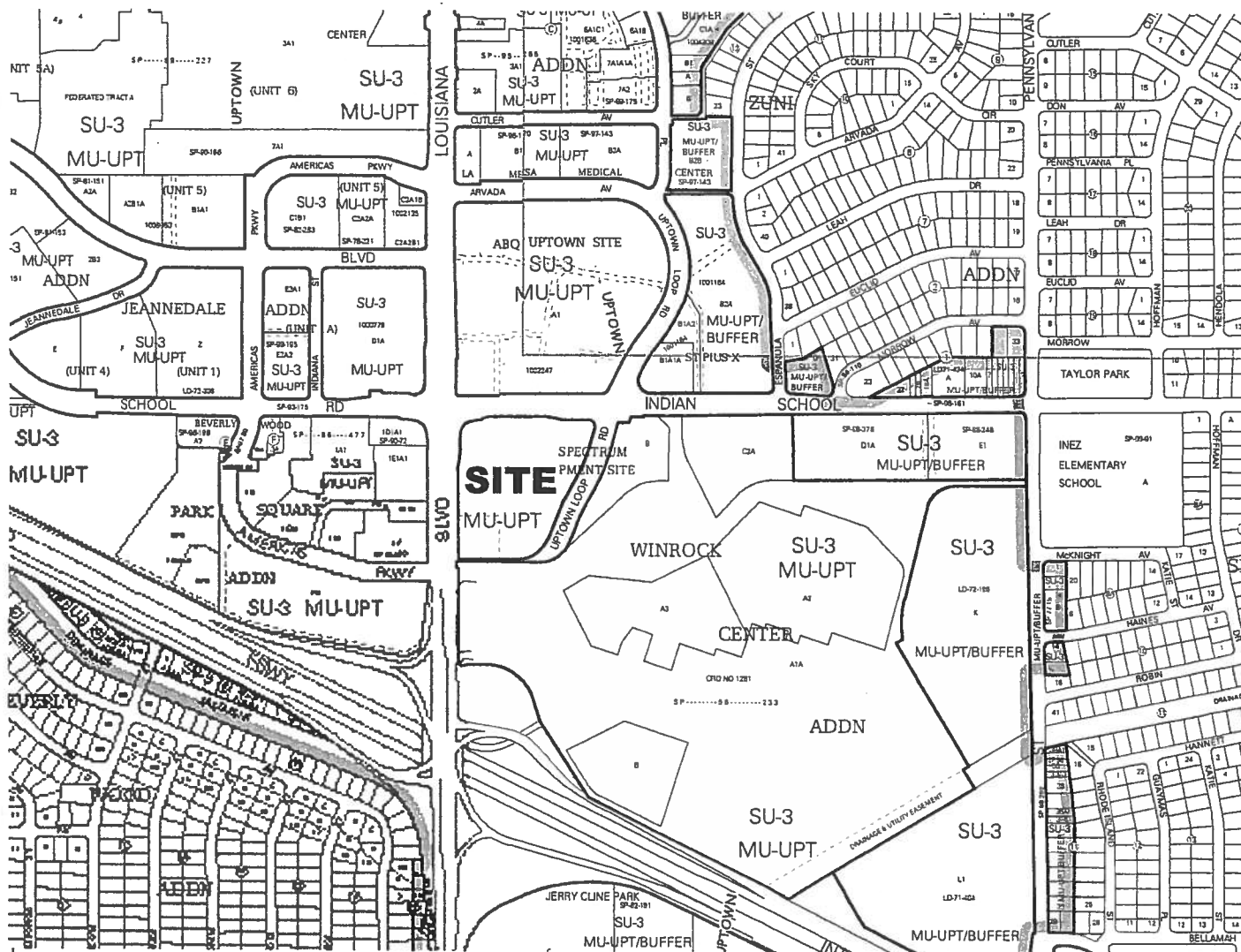
All construction of roadway improvements, driveways, and landscaping, shall preserve adequate sight distances at all existing and proposed intersections and driveways.

Improvements on City of Albuquerque streets and intersections should comply with requirements of the City of Albuquerque's *Development Process Manual*

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9 - Unsignalized Intersection Analyses (Driveway "C" / Uptown Loop)	A-95 thru A-96
10 – Unsignalized Intersection Analyses (Indian School Rd. / Driveway "D")	A-97 thru A-98
11 – Unsignalized Intersection Analyses (Uptown Loop / Romano's Dr.)	A-99 thru A-102
Signal Warrant – Indian School Rd / Q Street	A-103
Traffic Count Data	A-104 thru A-110
Bus Schedule for Route 3/157	A-111
Intersection Data Sheets	A-112 thru A-117

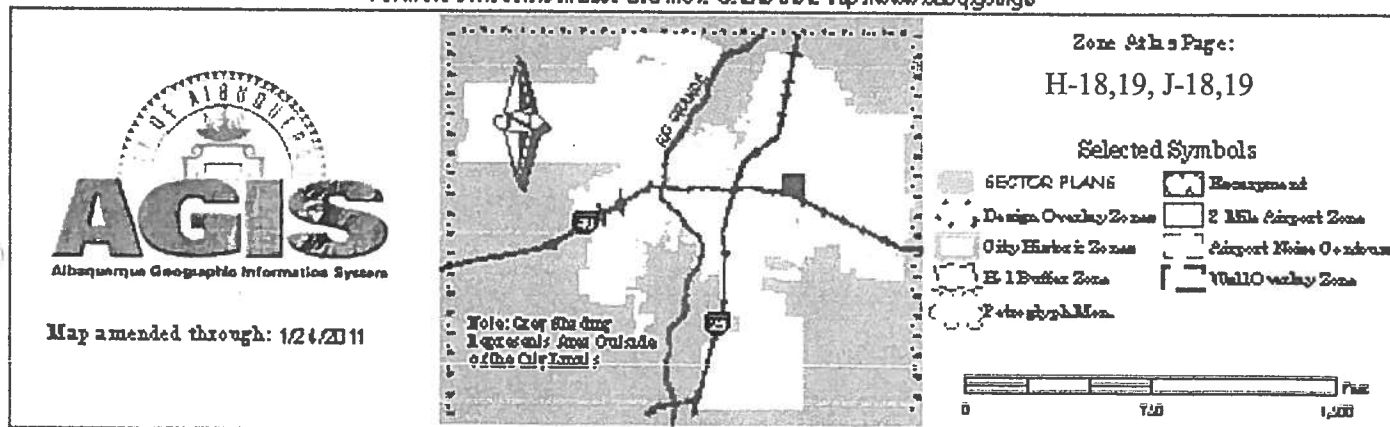
APPENDIX

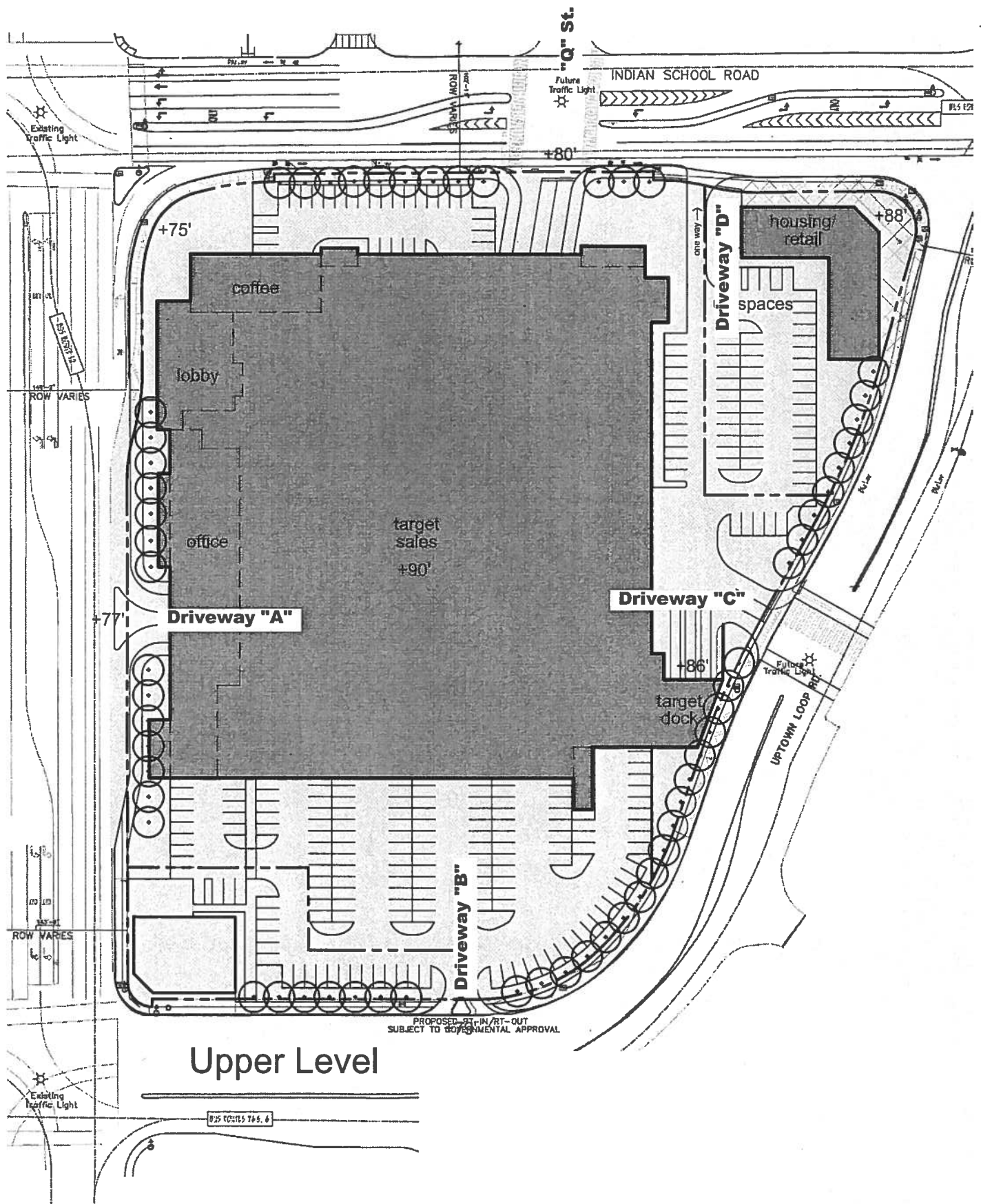


Target Commercial Center

Indian School Rd / Louisiana Blvd Vicinity Map

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





Uptown Monroe Site Conceptual Site Plan 9a

Albuquerque, NM 99-9ABQ.001 December 21, 2010

Dekker/Perich/Sabatini
A-2



Target Commercial Center
Indian School Rd / Louisiana Blvd
Aerial Photo Map

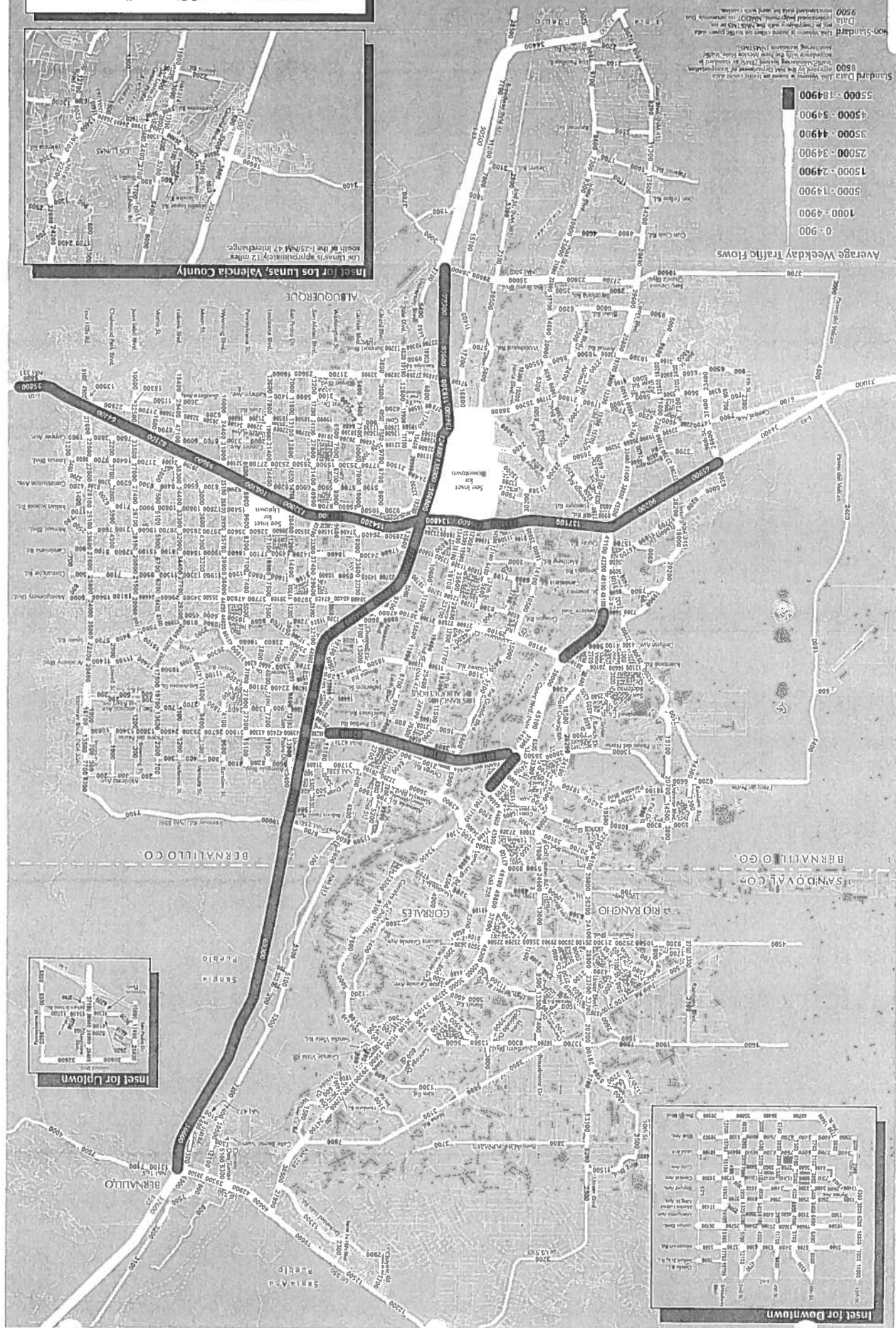
2009 Traffic Flows for the Greater Albuquerque Area

Map prepared by the Metropolitan Council of Governments in cooperation with the New Mexico Department of Transportation. Federal Highway Administration.

Standard 1:50,000 scale map. Data derived from the 2000 Census of Population and Housing, Census of the United States, 2000. Data for the 2000 Census of Population and Housing, Census of the United States, 2000. Data for the 2000 Census of Population and Housing, Census of the United States, 2000.

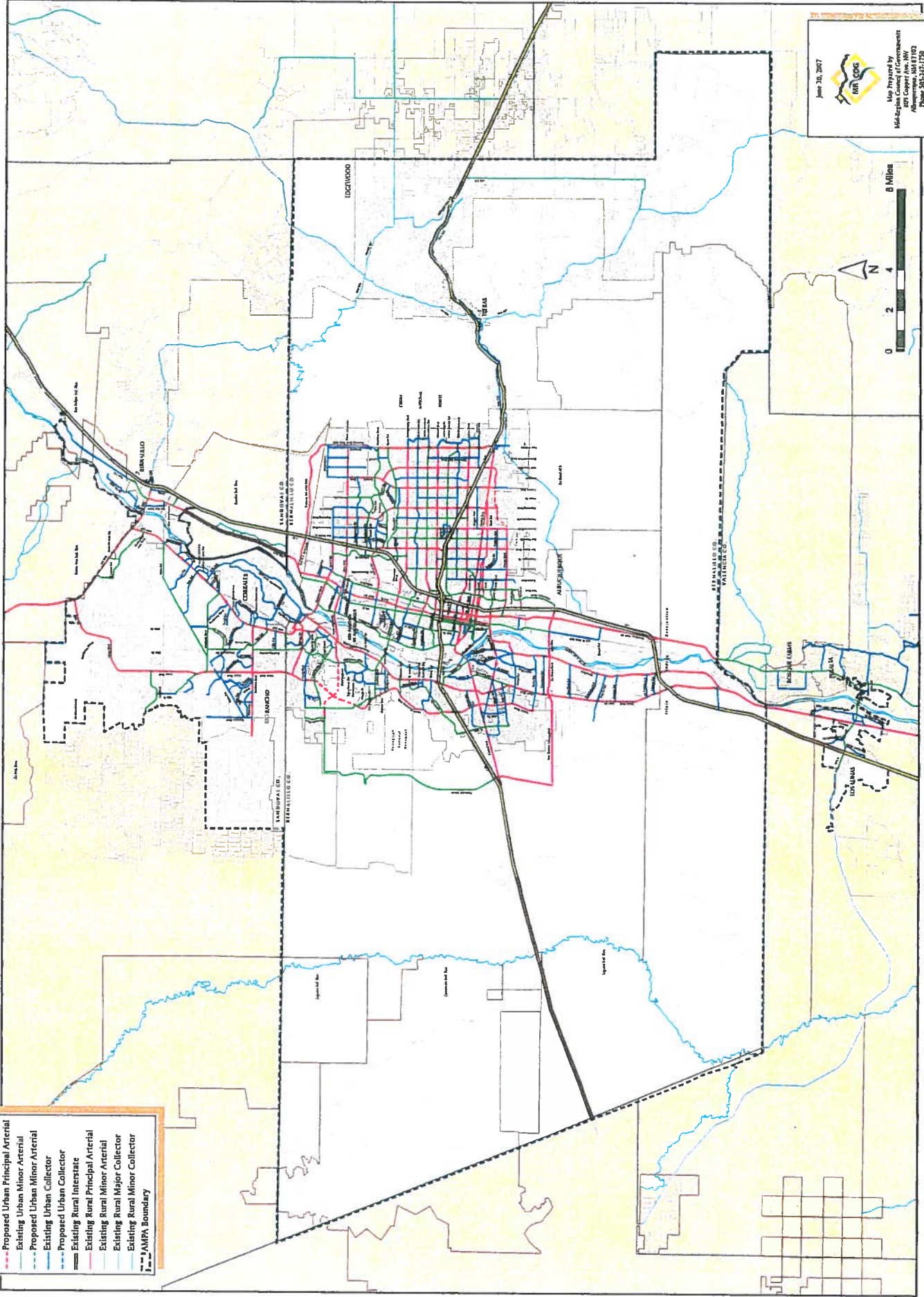
- 55000 - 104900
- 45000 - 54900
- 35000 - 44900
- 25000 - 34900
- 15000 - 24900
- 5000 - 14900
- 1000 - 4900
- 0 - 900

Average Weekday Traffic Flows



Map reflects functional classification of roadways from the 2003 classification adopted by the Metropolitan Transportation Board and the 2003 classification by the New Mexico Dept. of Transportation.

- Functional Classification**
- Existing Urban Interstate
 - Proposed Urban Principal Arterial
 - Existing Urban Principal Arterial
 - Proposed Urban Minor Arterial
 - Existing Urban Minor Arterial
 - Proposed Urban Collector
 - Existing Urban Collector
 - Proposed Rural Interstate
 - Existing Rural Principal Arterial
 - Proposed Rural Minor Arterial
 - Existing Rural Major Collector
 - Proposed Rural Minor Collector
 - Existing Rural Minor Collector
 - AMPA Boundary



June 28, 2007

MTD

Map Prepared by
M&Z Engineering, Inc.
2010 Coors Ave. NW
Albuquerque, NM 87102
Phone: 505-261-1111
Fax: 505-261-1111

Uptown Monroe Site (Indian School Rd. / Louisiana Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	DESCRIPTION	24 HR VOL		A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS	EXIT	ENTER	EXIT	ENTER	EXIT
Summary Sheet		Units					
	Free-Standing Discount Store (815)	10,767	54	115	400	400	400
	Shopping Center (820)	1,892	19	29	83	87	87
	Residential Condominium / Townhouse (230)	290	21	4	19	9	9
	Subtotal	12,949	94	148	502	496	496
	Subtotal Commercial Trips	12,659	73	144	483	487	487
	Pass-by Trip Adjustment (PM Only)	-	-	-	(97)	(97)	(97)
	Net New Commercial Trips Generated	12,659	73	144	386	390	390
	Residential Trips Generated	290	21	4	19	9	9
	Total New Trips to System for New Plan	12,949	94	148	405	399	399
	Trips Assumed in BHI - 2008 Traffic Impact Study*	9,099	174	295	409	438	438
	Increase (Decrease) in Trips Generated	3,850	(80)	(147)	(4)	(39)	(39)
	Percent Increase (Decrease) in Trips Generated	42.3%	-46.0%	-49.8%	-1.0%	-8.9%	-8.9%

* - BHI Trips Adjusted for Pass-by traffic

Uptown Monroe Site (Indian School Rd. / Louisiana Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT

Units

160.00	10,767	115	54	400	400
--------	--------	-----	----	-----	-----

Free-Standing Discount Store (815)

1,000 S.F.

ITE Trip Generation Equations:

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

$$\text{Ln}(T) = \begin{matrix} 50\% \\ \text{Enter,} \end{matrix} \quad \begin{matrix} 1.52 \\ \text{Ln}(X) + \end{matrix} \quad \begin{matrix} 1.57 \\ 50\% \text{ Exit} \end{matrix}$$

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

$$T = \begin{matrix} 68\% \\ \text{Enter,} \end{matrix} \quad \begin{matrix} 1.06 \\ (X) + \end{matrix} \quad \begin{matrix} 0 \\ 32\% \text{ Exit} \end{matrix}$$

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

$$T = \begin{matrix} 50\% \\ \text{Enter,} \end{matrix} \quad \begin{matrix} 5 \\ (X) + \end{matrix} \quad \begin{matrix} 0 \\ 50\% \text{ Exit} \end{matrix}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 8th Edition

Uptown Monroe Site (Indian School Rd. / Louisiana Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME		A. M. PEAK HOUR		P. M. PEAK HOUR
	GROSS	ENTER	EXIT	ENTER	EXIT

Units

Shopping Center (820)

14.00	1,892	29	19	83	87
-------	-------	----	----	----	----

1,000 S.F.

ITE Trip Generation Equations:

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

$$\text{Ln}(T) = 50\% \text{ Enter, } 0.65 \text{ Ln}(X) + 5.83 \text{ 50\% Exit}$$

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

$$\text{Ln}(T) = 61\% \text{ Enter, } 0.59 \text{ Ln}(X) + 2.32 \text{ 39\% Exit}$$

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

$$\text{Ln}(T) = 49\% \text{ Enter, } 0.67 \text{ Ln}(X) + 3.37 \text{ 51\% Exit}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 8th Edition

4/16/2011

Uptown Monroe Site (Indian School Rd. / Louisiana Blvd.) *Trip Generation Data (ITE Trip Generation Manual - 8th Edition)*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT

Units						
40.00						
Dwelling Units						
290		4		21		9

Residential Condominium / Townhouse (230)

ITE Trip Generation Equations:

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

$$\begin{aligned} \text{Ln}(\bar{T}) &= 0.87 \text{ Ln}(X) + 2.46 \\ &50\% \text{ Enter, } 50\% \text{ Exit} \end{aligned}$$

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

$$\begin{aligned} \text{Ln}(\bar{T}) &= 0.8 \text{ Ln}(X) + 0.26 \\ &17\% \text{ Enter, } 83\% \text{ Exit} \end{aligned}$$

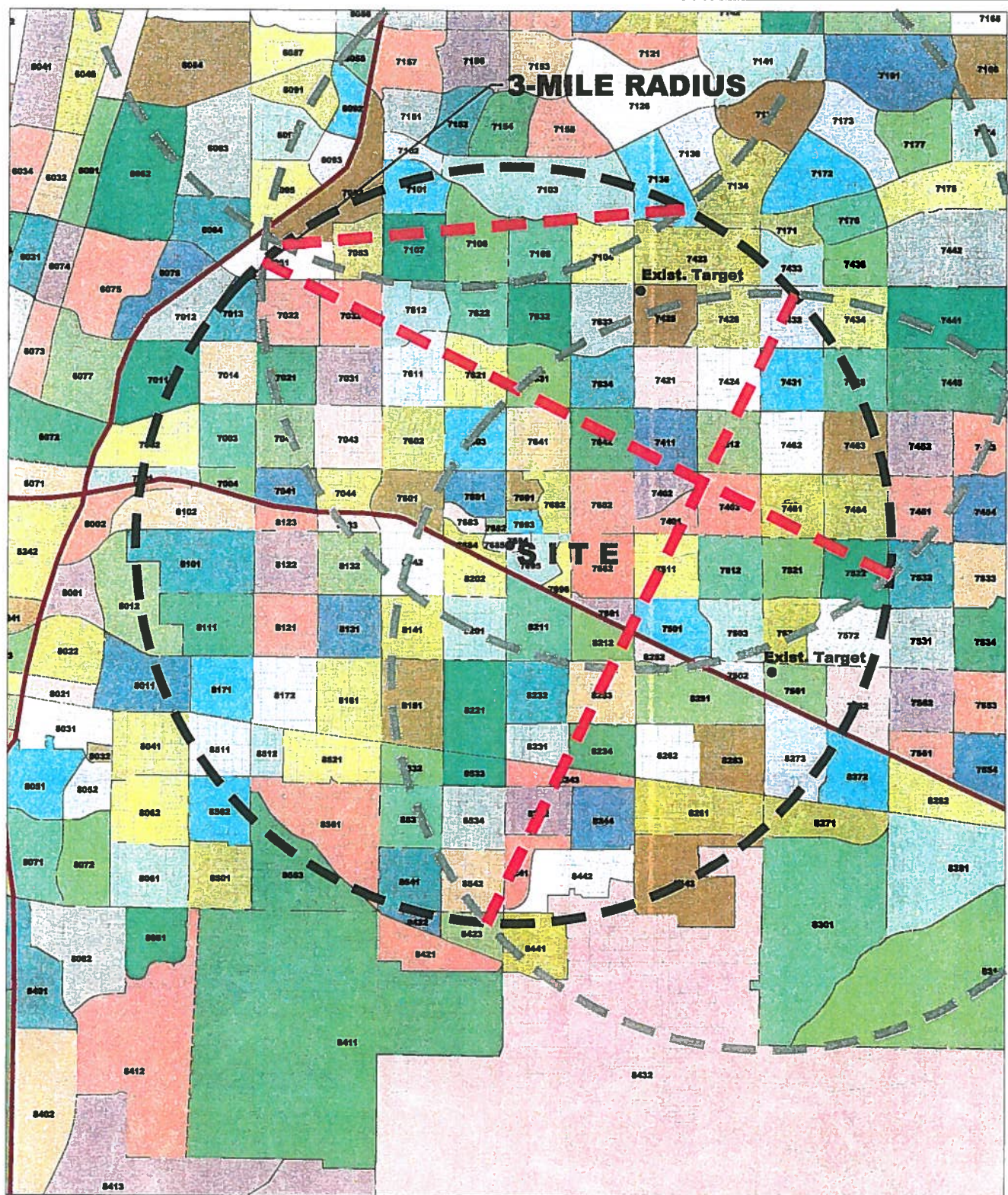
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$\begin{aligned} \text{Ln}(\bar{T}) &= 0.82 \text{ Ln}(X) + 0.32 \\ &67\% \text{ Enter, } 33\% \text{ Exit} \end{aligned}$$

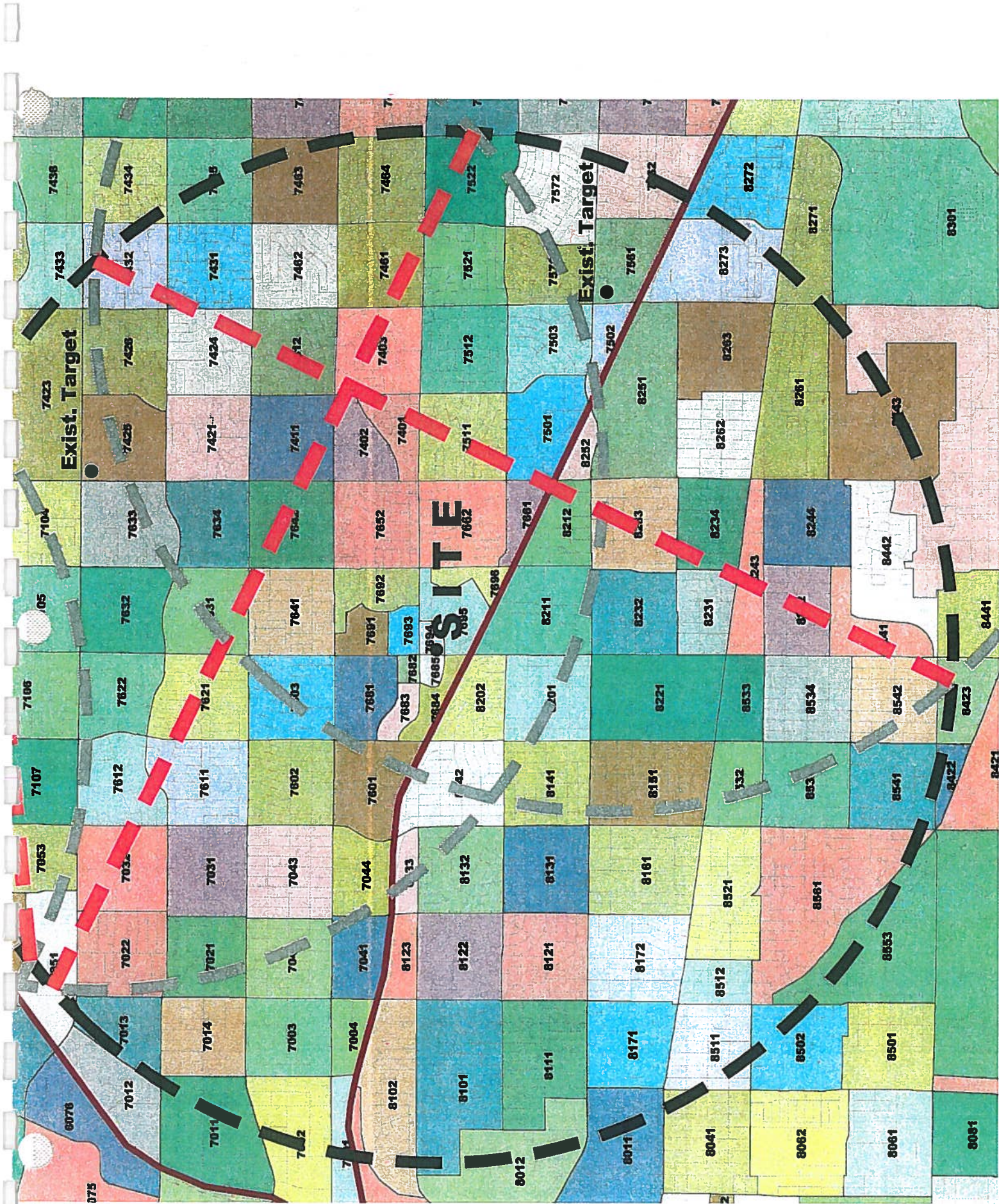
Comments:

Tract No.

Based on ITE Trip Generation Manual - 8th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP
Monroe Site (Indian School Rd. / Louisiana Blvd.)



Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area in Study	2004 Population		2030 Population	Interpolated Population for the Year 2012	Population In Study	Percent Population	(IE)			(PS)			(UC)		
		2004	2030					% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
Boundary Specified on DASZ Map																
7001	50%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	55%	5	5	3	3	2	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	87	79	85	85	85	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	2	2	2	2	2	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	30%	13	12	13	13	4	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1084	1031	1,068	1,068	1,068	1.46%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	1946	1807	1,903	1,903	1,903	2.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1282	1185	1,252	1,252	1,252	1.72%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1690	1570	1,653	1,653	1,653	2.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	100%	1956	1815	1,913	1,913	1,913	2.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	55%	1648	1541	1,615	888	888	1.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7041	100%	182	166	177	177	177	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	100%	1110	1028	1,085	1,085	1,085	1.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7043	100%	1467	1360	1,434	1,434	1,434	1.96%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7044	100%	13	15	14	14	14	0.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7401	70%	724	668	707	707	495	0.68%	100%	0.68%	495	0%	0.00%	0	0%	0.00%	0
7402	95%	891	852	879	879	835	1.14%	100%	1.14%	835	0%	0.00%	0	0%	0.00%	0
7411	10%	1504	1399	1,472	1,472	147	0.20%	50%	0.10%	74	0%	0.00%	0	0%	0.00%	0
7511	45%	1253	1215	1,241	1,241	558	0.76%	50%	0.38%	279	50%	0.38%	279	0%	0.00%	0
7601	100%	924	858	904	904	904	1.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7602	100%	1062	987	1,039	1,039	1,039	1.42%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7603	100%	1221	1132	1,194	1,194	1,194	1.64%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7611	85%	1854	1720	1,813	1,813	1,541	2.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7621	50%	1297	1205	1,269	635	635	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7631	5%	1101	1018	1,075	54	54	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7641	100%	1259	1165	1,230	1,230	1,230	1.69%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7642	50%	904	841	885	443	443	0.81%	50%	0.30%	222	0%	0.00%	0	0%	0.00%	0
7652	100%	1024	951	1,002	1,002	1,002	1.37%	50%	0.69%	501	0%	0.00%	0	0%	0.00%	0
7661	95%	194	215	200	190	190	0.26%	0%	0.00%	0	80%	0.21%	152	0%	0.00%	0
7662	100%	1692	1572	1,655	1,655	1,655	2.27%	50%	1.13%	828	50%	1.13%	828	0%	0.00%	0
7681	100%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7682	100%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7683	100%	126	117	123	123	123	0.17%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7684	100%	662	632	653	653	653	0.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7685	100%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7691	100%	147	150	148	148	148	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7692	100%	659	668	723	723	723	0.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7693	100%	0	796	245	245	245	0.34%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7694	100%	0	85	26	26	26	0.04%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7695	100%	0	139	43	43	43	0.06%	0%	0.00%	0	0%	0.00%	0	100%	0.04%	26
7696	100%	877	837	865	865	865	1.19%	0%	0.00%	0	50%	0.59%	433	50%	0.59%	433
8002	15%	422	524	453	453	68	0.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8011	40%	2027	1998	2,018	2,018	807	1.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area in Study	2004 Population		2030 Population	Interpolated Population for the Year 2012	Population In Study	Percent Population	(IE)			(PS)			(UC)		
		2004						% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
Boundary Specified on DASZ Map																
8012	45%	466	471	468	211	0.29%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8041	5%	2730	2659	2708	135	0.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8101	100%	2346	2176	2294	2294	3.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8102	85%	1462	1378	1436	1221	1.67%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8111	100%	1772	1643	1732	1732	2.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8121	100%	1229	1136	1200	1200	1.64%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8122	100%	1241	1168	1219	1219	1.67%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8123	100%	471	435	460	460	0.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8131	100%	1262	1170	1234	1234	1.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8132	100%	1162	1076	1136	1136	1.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8133	100%	1	0	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8141	100%	1021	951	989	989	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8142	100%	1483	1376	1450	1450	1.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8151	100%	1752	1674	1728	1728	2.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8161	100%	2081	2358	2166	2166	2.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8171	100%	1020	974	1006	1008	1.38%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8172	100%	1605	1514	1577	1577	2.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8201	100%	1128	1045	1101	1101	1.51%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8202	100%	806	757	791	791	1.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8211	100%	1580	1479	1549	1549	2.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8212	90%	335	308	327	294	0.40%	0%	0.00%	0	50%	0.20%	147	0%	0.00%	0	
8221	100%	3	10	5	5	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8231	100%	1462	1382	1437	1437	1.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8232	100%	1199	1118	1174	1174	1.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8233	50%	2587	2500	2560	1280	1.75%	0%	0.00%	0	50%	0.88%	640	0%	0.00%	0	
8234	10%	1866	1759	1833	183	0.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8241	30%	1000	942	982	295	0.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8242	50%	4255	4387	4296	2148	2.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8243	50%	1114	1099	1109	555	0.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8502	25%	1209	1125	1183	298	0.41%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8511	85%	1058	995	1039	883	1.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8512	100%	357	365	359	359	0.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8521	100%	961	1281	1059	1059	1.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8531	100%	1864	1794	1842	1842	2.52%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8532	100%	1054	1018	1043	1043	1.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8533	100%	709	699	706	706	0.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8534	100%	1893	1795	1863	1863	2.55%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8541	95%	2956	2878	2932	2785	3.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8542	95%	1624	1510	1589	1510	2.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8553	20%	2284	2250	2274	455	0.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8561	95%	2668	2524	2624	2493	3.42%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
							92,570	100.00%	3,233	2,478	3,233	2,478	502	0.89%	502	
							72,978		4.43%	3.40%		3.40%				

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

				(L-S)				(UW)				(IW)				
				Louisiana Blvd South				Uptown Loop West				Indian School Rd West				
DASZ #		% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for the Year 2012	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
Boundary Specified on DASZ Map																
7001		50%	0	0	0	0	0.00%	70%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002		55%	5	0	3	2	0.00%	70%	0.00%	1	0%	0.00%	0	0%	0.00%	0
7003		100%	87	79	85	85	0.12%	70%	0.08%	60	0%	0.00%	0	0%	0.00%	0
7004		100%	2	2	2	2	0.00%	70%	0.00%	1	0%	0.00%	0	0%	0.00%	0
7011		30%	13	12	13	4	0.01%	70%	0.00%	3	0%	0.00%	0	0%	0.00%	0
7013		100%	1084	1031	1068	1068	1.46%	70%	1.02%	748	0%	0.00%	0	0%	0.00%	0
7014		100%	1946	1807	1903	1903	2.61%	70%	1.83%	1332	0%	0.00%	0	0%	0.00%	0
7021		100%	1282	1185	1252	1252	1.72%	70%	1.20%	876	0%	0.00%	0	0%	0.00%	0
7022		100%	1690	1570	1653	1653	2.27%	70%	1.59%	1157	0%	0.00%	0	0%	0.00%	0
7031		100%	1956	1815	1913	1913	2.62%	70%	1.83%	1339	0%	0.00%	0	0%	0.00%	0
7032		55%	1648	1541	1615	888	1.22%	70%	0.85%	622	0%	0.00%	0	0%	0.00%	0
7041		100%	182	166	177	177	0.24%	100%	0.24%	177	0%	0.00%	0	0%	0.00%	0
7042		100%	1110	1028	1085	1085	1.49%	80%	1.19%	868	0%	0.00%	0	0%	0.00%	0
7043		100%	1467	1360	1434	1434	1.96%	70%	1.38%	1004	0%	0.00%	0	0%	0.00%	0
7044		100%	13	15	14	14	0.02%	100%	0.02%	14	0%	0.00%	0	0%	0.00%	0
7401		70%	724	688	707	495	0.68%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7402		95%	891	852	879	835	1.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7411		10%	1504	1399	1472	147	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7511		45%	1253	1215	1241	558	0.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7601		100%	924	858	904	904	1.24%	30%	0.37%	271	20%	0.25%	181	50%	0.62%	452
7602		100%	1062	987	1039	1039	1.42%	50%	0.71%	520	20%	0.28%	208	20%	0.28%	208
7603		100%	1221	1132	1194	1194	1.64%	0%	0.00%	0	25%	0.41%	298	25%	0.41%	298
7611		85%	1854	1720	1813	1541	2.11%	60%	1.27%	925	20%	0.42%	308	20%	0.42%	308
7621		50%	1297	1205	1269	835	0.87%	0%	0.00%	0	25%	0.22%	159	25%	0.22%	159
7631		5%	1101	1018	1075	54	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7641		100%	1259	1165	1230	1230	1.69%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7642		50%	904	841	885	443	0.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7652		100%	1024	951	1002	1002	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7661		95%	194	215	200	190	0.26%	20%	0.05%	38	0%	0.00%	0	0%	0.00%	0
7662		100%	1692	1572	1655	1655	2.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7681		100%	0	0	0	0	0.00%	0%	0.00%	0	20%	0.00%	0	0%	0.00%	0
7682		100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0
7683		100%	126	117	123	123	0.17%	0%	0.00%	0	20%	0.03%	25	80%	0.13%	98
7684		100%	662	632	653	653	0.89%	0%	0.00%	0	50%	0.45%	327	50%	0.45%	327
7685		100%	0	0	0	0	0.00%	0%	0.00%	0	50%	0.00%	0	50%	0.00%	0
7691		100%	147	150	148	148	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7692		100%	659	688	723	723	0.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7693		100%	0	796	245	245	0.34%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7694		100%	0	85	26	26	0.04%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7695		100%	0	139	43	43	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7696		100%	877	837	865	865	1.19%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002		15%	422	524	453	68	0.09%	0%	0.00%	0	50%	0.05%	34	50%	0.05%	34
8011		40%	2027	1998	2018	807	1.11%	100%	1.11%	807	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

				(L-S)				(UW)				(IW)			
DASZ #		% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for this Year	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing
Boundary Specified on DASZ Map															
8012		45%	466	471	468	211	0.29%	50%	0.14%	106	0%	0.00%	0	50%	0.14%
8041		5%	2730	2659	2,708	135	0.18%	100%	0.18%	135	0%	0.00%	0	0%	0.00%
8101		100%	2346	2176	2,294	2,294	3.14%	50%	1.57%	1,147	25%	0.79%	574	25%	0.79%
8102		85%	1462	1378	1,436	1,221	1.67%	50%	0.84%	611	25%	0.42%	305	25%	0.42%
8111		100%	1772	1643	1,732	1,732	2.37%	100%	2.37%	1,732	0%	0.00%	0	0%	0.00%
8121		100%	1229	1136	1,200	1,200	1.84%	100%	1.84%	1,200	0%	0.00%	0	0%	0.00%
8122		100%	1241	1168	1,219	1,219	1.67%	50%	0.84%	610	25%	0.42%	305	25%	0.42%
8123		100%	471	435	460	460	0.63%	0%	0.00%	0	50%	0.32%	230	50%	0.32%
8131		100%	1262	1170	1,234	1,234	1.69%	100%	1.69%	1,234	0%	0.00%	0	0%	0.00%
8132		100%	1162	1078	1,136	1,136	1.56%	65%	1.01%	738	10%	0.16%	114	25%	0.39%
8133		100%	1	0	1	1	0.00%	0%	0.00%	0	50%	0.00%	1	50%	0.00%
8141		100%	1021	951	999	999	1.37%	100%	1.37%	999	0%	0.00%	0	0%	0.00%
8142		100%	1483	1376	1,450	1,450	1.99%	50%	0.99%	725	25%	0.50%	363	25%	0.50%
8151		100%	1752	1651	1,728	1,728	2.37%	100%	2.37%	1,728	0%	0.00%	0	0%	0.00%
8161		100%	2081	2358	2,166	2,166	2.87%	100%	2.87%	2,166	0%	0.00%	0	0%	0.00%
8171		100%	1020	974	1,006	1,006	1.38%	100%	1.38%	1,006	0%	0.00%	0	0%	0.00%
8172		100%	1605	1514	1,577	1,577	2.16%	100%	2.16%	1,577	0%	0.00%	0	0%	0.00%
8201		100%	1126	1045	1,101	1,101	1.51%	100%	1.51%	1,101	0%	0.00%	0	0%	0.00%
8202		100%	806	757	791	791	1.08%	100%	1.08%	791	0%	0.00%	0	0%	0.00%
8211		100%	1580	1479	1,549	1,549	2.12%	100%	2.12%	1,549	0%	0.00%	0	0%	0.00%
8212		90%	335	308	327	294	0.40%	50%	0.20%	147	0%	0.00%	0	0%	0.00%
8221		100%	3	10	5	5	0.01%	100%	0.01%	5	0%	0.00%	0	0%	0.00%
8231		100%	1462	1382	1,437	1,437	1.97%	100%	1.97%	1,437	0%	0.00%	0	0%	0.00%
8232		100%	1199	1118	1,174	1,174	1.61%	100%	1.61%	1,174	0%	0.00%	0	0%	0.00%
8233		50%	2587	2500	2,560	1,280	1.75%	50%	0.88%	640	0%	0.00%	0	0%	0.00%
8234		10%	1866	1759	1,833	183	0.25%	100%	0.25%	183	0%	0.00%	0	0%	0.00%
8241		30%	1000	942	982	295	0.40%	100%	0.40%	295	0%	0.00%	0	0%	0.00%
8242		50%	4255	4387	4,296	2,148	2.94%	100%	2.94%	2,148	0%	0.00%	0	0%	0.00%
8243		50%	1114	1099	1,109	555	0.76%	100%	0.76%	555	0%	0.00%	0	0%	0.00%
8502		25%	1209	1125	1,183	296	0.41%	100%	0.41%	296	0%	0.00%	0	0%	0.00%
8511		85%	1058	995	1,039	883	1.21%	100%	1.21%	883	0%	0.00%	0	0%	0.00%
8512		100%	357	359	359	359	0.49%	100%	0.49%	359	0%	0.00%	0	0%	0.00%
8521		100%	961	1281	1,059	1,059	1.45%	100%	1.45%	1,059	0%	0.00%	0	0%	0.00%
8531		100%	1864	1794	1,842	1,842	2.52%	100%	2.52%	1,842	0%	0.00%	0	0%	0.00%
8532		100%	1054	1018	1,043	1,043	1.43%	100%	1.43%	1,043	0%	0.00%	0	0%	0.00%
8533		100%	709	699	706	706	0.97%	100%	0.97%	706	0%	0.00%	0	0%	0.00%
8534		100%	1893	1795	1,863	1,863	2.55%	100%	2.55%	1,863	0%	0.00%	0	0%	0.00%
8541		95%	2956	2879	2,932	2,785	3.82%	100%	3.82%	2,785	0%	0.00%	0	0%	0.00%
8542		95%	1624	1510	1,589	1,510	2.07%	100%	2.07%	1,510	0%	0.00%	0	0%	0.00%
8553		20%	2284	2250	2,274	455	0.82%	100%	0.82%	455	0%	0.00%	0	0%	0.00%
8561		95%	2668	2524	2,624	2,493	3.42%	100%	3.42%	2,493	0%	0.00%	0	0%	0.00%
												3,429	4.70%	4,050	
												51,794	5.55%	55,555	

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic

2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area In Study	2004		Interpolated Population for the Year 2012	Population in Study	Percent Population	(LN)			(QN)			(UN)		
		2004 Population	2030 Population				% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2030													
Boundary Specified on DASZ Map															
7001	50%	0	0	0	0	0.00%	30%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	55%	5	0	3	2	0.00%	30%	0.00%	1	0%	0.00%	0	0%	0.00%	0
7003	100%	87	79	85	85	0.12%	30%	0.03%	26	0%	0.00%	0	0%	0.00%	0
7004	100%	2	2	2	2	0.00%	30%	0.00%	1	0%	0.00%	0	0%	0.00%	0
7011	30%	13	12	13	4	0.01%	30%	0.00%	1	0%	0.00%	0	0%	0.00%	0
7013	100%	1084	1031	1,068	1,068	1.49%	30%	0.44%	320	0%	0.00%	0	0%	0.00%	0
7014	100%	1946	1807	1,903	1,903	2.61%	30%	0.78%	571	0%	0.00%	0	0%	0.00%	0
7021	100%	1282	1185	1,252	1,252	1.72%	30%	0.51%	376	0%	0.00%	0	0%	0.00%	0
7022	100%	1690	1570	1,653	1,653	2.27%	30%	0.68%	496	0%	0.00%	0	0%	0.00%	0
7031	100%	1956	1815	1,913	1,913	2.62%	30%	0.79%	574	0%	0.00%	0	0%	0.00%	0
7032	55%	1648	1541	1,815	888	1.22%	30%	0.37%	266	0%	0.00%	0	0%	0.00%	0
7041	100%	182	166	177	177	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	100%	1110	1028	1,085	1,085	1.49%	20%	0.30%	217	0%	0.00%	0	0%	0.00%	0
7043	100%	1467	1360	1,434	1,434	1.96%	30%	0.59%	430	0%	0.00%	0	0%	0.00%	0
7044	100%	13	15	14	14	0.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7401	70%	724	688	707	495	0.68%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7402	95%	891	852	879	835	1.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7411	10%	1504	1399	1,472	147	0.20%	20%	0.04%	29	0%	0.00%	0	0%	0.00%	0
7511	45%	1253	1215	1,241	558	0.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7601	100%	924	858	904	904	1.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7602	100%	1062	987	1,039	1,039	1.42%	10%	0.14%	104	0%	0.00%	0	0%	0.00%	0
7603	100%	1221	1132	1,194	1,194	1.64%	50%	0.82%	597	0%	0.00%	0	0%	0.00%	0
7611	85%	1854	1720	1,813	1,541	2.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7621	50%	1297	1205	1,269	635	0.87%	50%	0.44%	318	0%	0.00%	0	0%	0.00%	0
7631	5%	1101	1018	1,075	54	0.07%	50%	0.04%	27	0%	0.00%	0	0%	0.00%	0
7641	100%	1259	1165	1,230	1,230	1.69%	50%	0.84%	615	0%	0.00%	0	0%	0.00%	0
7642	50%	904	841	885	443	0.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7652	100%	1024	951	1,002	1,002	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7661	95%	194	215	200	194	0.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7662	100%	1692	1572	1,655	1,655	2.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7681	100%	0	0	0	0	0.00%	80%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7682	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7683	100%	126	117	123	123	0.17%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7684	100%	662	632	653	653	0.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7685	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7691	100%	147	150	148	148	0.20%	20%	0.04%	30	0%	0.00%	0	0%	0.00%	0
7692	100%	659	868	723	723	0.99%	50%	0.50%	362	0%	0.00%	0	0%	0.00%	0
7693	100%	0	796	245	245	0.34%	0%	0.00%	0	50%	0.17%	123	50%	0.17%	123
7694	100%	0	85	28	28	0.04%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7695	100%	0	139	43	43	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7696	100%	877	837	865	865	1.19%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002	15%	422	524	453	68	0.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8011	40%	2027	1998	2,018	807	1.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #		% Sub Area In Study	2004 Population		2030 Population	Interpolated Population for the Year 2012	Population In Study	Percent Population	(LN) Louisiana Blvd North			(QN) Q St North			(UN) Uptown Loop North		
			2004		2030				% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	
Boundary Specified on DASZ Map																	
8012		45%	466	471	488	211	0.29%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8041		5%	2730	2659	2,708	135	0.18%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8101		100%	2346	2176	2,294	2,294	3.14%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8102		85%	1462	1378	1,436	1,221	1.67%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8111		100%	1772	1643	1,732	1,732	2.37%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8121		100%	1229	1136	1,200	1,200	1.64%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8122		100%	1241	1168	1,219	1,219	1.67%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8123		100%	471	435	480	460	0.63%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8131		100%	1262	1170	1,234	1,234	1.69%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8132		100%	1162	1076	1,136	1,136	1.56%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8133		100%	1	0	1	1	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8141		100%	1021	951	999	999	1.37%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8142		100%	1483	1378	1,450	1,450	1.99%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8151		100%	1752	1674	1,728	1,728	2.37%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8161		100%	2081	2358	2,168	2,168	2.97%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8171		100%	1020	974	1,006	1,006	1.39%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8172		100%	1605	1514	1,577	1,577	2.16%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8201		100%	1126	1045	1,101	1,101	1.51%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8202		100%	806	757	791	791	1.09%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8211		100%	1580	1479	1,549	1,549	2.12%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8212		90%	335	308	327	294	0.40%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8221		100%	3	10	5	5	0.01%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8231		100%	1462	1382	1,437	1,437	1.97%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8232		100%	1199	1118	1,174	1,174	1.61%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8233		50%	2587	2500	2,560	1,280	1.75%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8234		10%	1866	1759	1,833	183	0.25%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8241		30%	1000	942	982	295	0.40%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8242		50%	4255	4387	4,298	2,148	2.94%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8243		50%	1114	1099	1,109	555	0.76%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8502		25%	1209	1125	1,183	296	0.41%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8511		85%	1058	995	1,039	883	1.21%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8512		100%	357	365	359	359	0.49%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8521		100%	961	1281	1,059	1,059	1.45%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8531		100%	1864	1794	1,842	1,842	2.52%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8532		100%	1054	1018	1,043	1,043	1.43%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8533		100%	709	699	706	706	0.97%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8534		100%	1893	1795	1,863	1,863	2.55%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8541		95%	2956	2879	2,932	2,785	3.82%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8542		95%	1624	1510	1,589	1,510	2.07%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8553		20%	2284	2250	2,274	455	0.62%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
8561		95%	2668	2524	2,624	2,493	3.42%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	
									5,359 7.34%			123 0.17%			123 0.17%		
									72,978			92,570			123		
									100.00%			5.359			0.17%		
									7.34%			7.34%			0.17%		

Trip Distribution Table Target Commercial Center

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area In Study	2004				2030 Population	Interpolated Population for the Year 2012	Population in Study	Percent Population	(EN) Española St North			(PN) Pennsylvania St North		
		2004 Population		2030 Population						% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2004	2030										
Boundary Specified on DASZ Map															
7001	50%		0	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
7002	55%	5		0	3	2	0.00%	2	0.00%	0%	0.00%	0	0%	0.00%	0
7003	100%	87	79	85	85	85	0.12%	85	0.12%	0%	0.00%	0	0%	0.00%	0
7004	100%	2	2	2	2	2	0.00%	2	0.00%	0%	0.00%	0	0%	0.00%	0
7011	30%	13	12	13	13	4	0.01%	4	0.01%	0%	0.00%	0	0%	0.00%	0
7013	100%	1084	1031	1,068	1,068	1,068	1.46%	1,068	1.46%	0%	0.00%	0	0%	0.00%	0
7014	100%	1946	1807	1,903	1,903	1,903	2.81%	1,903	2.81%	0%	0.00%	0	0%	0.00%	0
7021	100%	1282	1185	1,252	1,252	1,252	1.72%	1,252	1.72%	0%	0.00%	0	0%	0.00%	0
7022	100%	1690	1570	1,653	1,653	1,653	2.27%	1,653	2.27%	0%	0.00%	0	0%	0.00%	0
7031	100%	1956	1815	1,913	1,913	1,913	2.62%	1,913	2.62%	0%	0.00%	0	0%	0.00%	0
7032	55%	1848	1541	1,615	1,615	888	1.22%	888	1.22%	0%	0.00%	0	0%	0.00%	0
7041	100%	182	166	177	177	177	0.24%	177	0.24%	0%	0.00%	0	0%	0.00%	0
7042	100%	1110	1028	1,085	1,085	1,085	1.49%	1,085	1.49%	0%	0.00%	0	0%	0.00%	0
7043	100%	1467	1360	1,434	1,434	1,434	1.96%	1,434	1.96%	0%	0.00%	0	0%	0.00%	0
7044	100%	13	15	14	14	14	0.02%	14	0.02%	0%	0.00%	0	0%	0.00%	0
7401	70%	724	668	707	495	707	0.68%	495	0.68%	0%	0.00%	0	0%	0.00%	0
7402	95%	891	852	879	835	835	1.14%	835	1.14%	0%	0.00%	0	0%	0.00%	0
7411	10%	1504	1399	1,472	1,472	147	0.20%	147	0.20%	0%	0.00%	0	30%	0.06%	44
7511	45%	1253	1215	1,241	558	558	0.76%	558	0.76%	0%	0.00%	0	0%	0.00%	0
7601	100%	924	858	904	904	904	1.24%	904	1.24%	0%	0.00%	0	0%	0.00%	0
7602	100%	1062	987	1,039	1,039	1,039	1.42%	1,039	1.42%	0%	0.00%	0	0%	0.00%	0
7603	100%	1221	1132	1,194	1,194	1,194	1.64%	1,194	1.64%	0%	0.00%	0	0%	0.00%	0
7611	85%	1854	1720	1,813	1,541	1,541	2.11%	1,541	2.11%	0%	0.00%	0	0%	0.00%	0
7621	50%	1297	1205	1,269	635	635	0.87%	635	0.87%	0%	0.00%	0	0%	0.00%	0
7631	5%	1101	1018	1,075	54	54	0.07%	54	0.07%	0%	0.00%	0	50%	0.04%	27
7641	100%	1259	1165	1,230	1,230	1,230	1.89%	1,230	1.89%	0%	0.00%	0	0%	0.84%	615
7642	50%	904	841	885	443	443	0.61%	443	0.61%	0%	0.00%	0	50%	0.30%	222
7652	100%	1024	951	1,002	1,002	1,002	1.37%	1,002	1.37%	0%	0.00%	0	50%	0.98%	501
7661	95%	194	215	200	190	190	0.26%	190	0.26%	0%	0.00%	0	0%	0.00%	0
7662	100%	1692	1572	1,655	1,655	1,655	2.27%	1,655	2.27%	0%	0.00%	0	0%	0.00%	0
7681	100%	0	0	0	0	0	0.00%	0	0.00%	0%	0.00%	0	0%	0.00%	0
7682	100%	0	0	0	0	0	0.00%	0	0.00%	0%	0.00%	0	0%	0.00%	0
7683	100%	126	117	123	123	123	0.17%	123	0.17%	0%	0.00%	0	0%	0.00%	0
7684	100%	662	632	653	653	653	0.89%	653	0.89%	0%	0.00%	0	0%	0.00%	0
7685	100%	0	0	0	0	0	0.00%	0	0.00%	0%	0.00%	0	0%	0.00%	0
7691	100%	147	150	148	148	148	0.20%	148	0.20%	80%	0.16%	118	0%	0.00%	0
7692	100%	659	668	723	723	723	0.99%	723	0.99%	50%	0.50%	382	0%	0.00%	0
7693	100%	0	796	245	245	245	0.34%	245	0.34%	0%	0.00%	0	0%	0.00%	0
7694	100%	0	85	26	26	26	0.04%	26	0.04%	0%	0.00%	0	0%	0.00%	0
7695	100%	0	139	43	43	43	0.06%	43	0.06%	0%	0.00%	0	0%	0.00%	0
7696	100%	877	837	865	865	865	1.19%	865	1.19%	0%	0.00%	0	0%	0.00%	0
8002	15%	422	524	453	453	68	0.09%	68	0.09%	0%	0.00%	0	0%	0.00%	0
8011	40%	2027	1998	2,018	2,018	807	1.11%	807	1.11%	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table Target Commercial Center

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

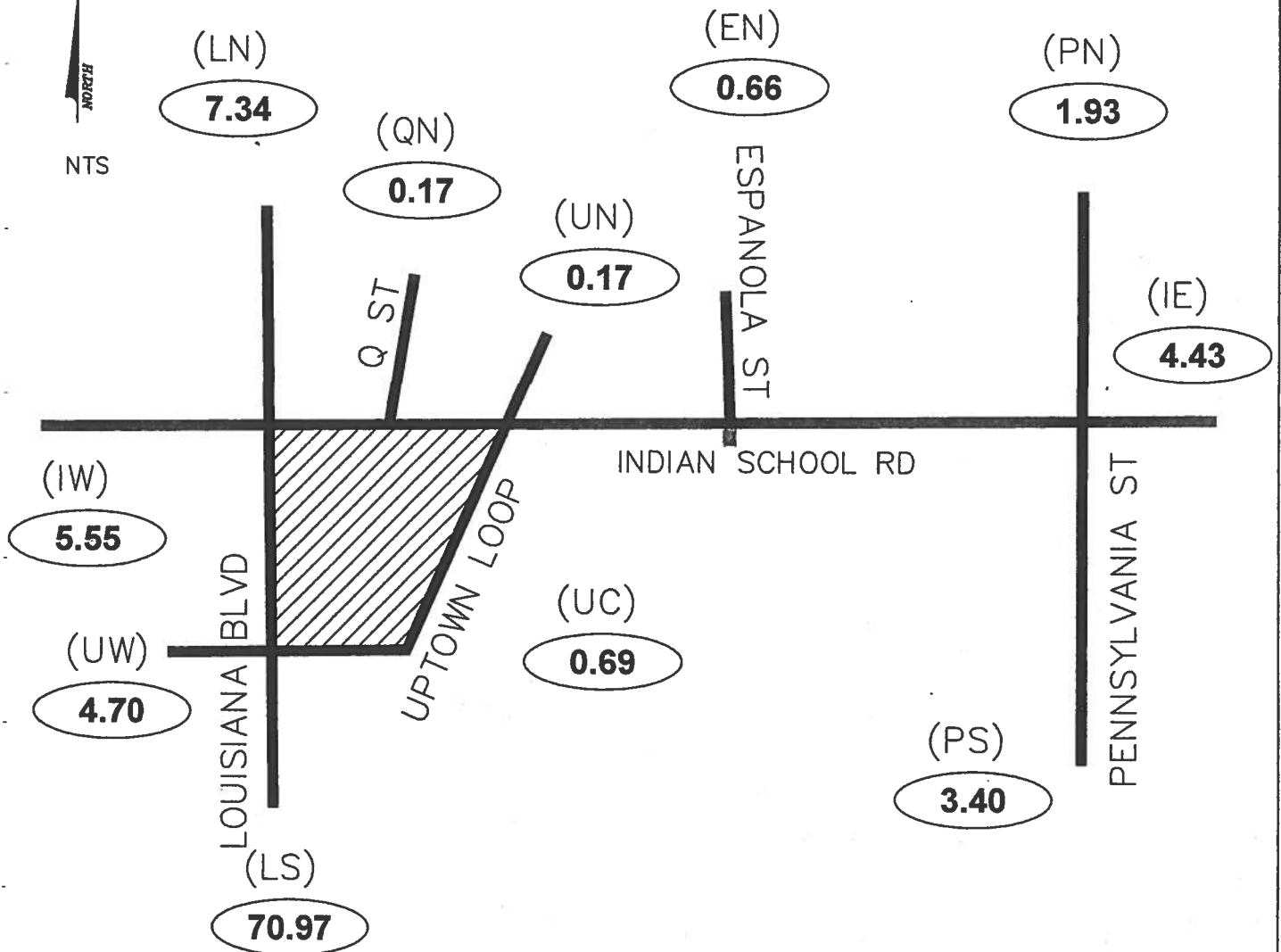
2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area In Study	2004			Interpolated Population for the Year 2012	Population in Study	Percent Population	(EN)			(PN)			
		2004 Population						2030 Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004 Population	2030 Population	2030 Population										
Boundary Specified on DASZ Map														
8012	45%	466	471	468	211	0.29%	0	0%	0.00%	0	0%	0.00%	0	
8041	5%	2730	2659	2,708	135	0.18%	0	0%	0.00%	0	0%	0.00%	0	
8101	100%	2346	2176	2,294	2,294	3.14%	0	0%	0.00%	0	0%	0.00%	0	
8102	85%	1462	1378	1,436	1,221	1.67%	0	0%	0.00%	0	0%	0.00%	0	
8111	100%	1772	1643	1,732	1,732	2.37%	0	0%	0.00%	0	0%	0.00%	0	
8121	100%	1229	1136	1,200	1,200	1.64%	0	0%	0.00%	0	0%	0.00%	0	
8122	100%	1241	1168	1,219	1,219	1.67%	0	0%	0.00%	0	0%	0.00%	0	
8123	100%	471	435	460	460	0.63%	0	0%	0.00%	0	0%	0.00%	0	
8131	100%	1262	1170	1,234	1,234	1.69%	0	0%	0.00%	0	0%	0.00%	0	
8132	100%	1162	1076	1,136	1,136	1.56%	0	0%	0.00%	0	0%	0.00%	0	
8133	100%	1	0	1	1	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8141	100%	1021	951	999	999	1.37%	0	0%	0.00%	0	0%	0.00%	0	
8142	100%	1483	1376	1,450	1,450	1.99%	0	0%	0.00%	0	0%	0.00%	0	
8151	100%	1728	1674	1,728	1,728	2.37%	0	0%	0.00%	0	0%	0.00%	0	
8161	100%	2081	2358	2,166	2,166	2.67%	0	0%	0.00%	0	0%	0.00%	0	
8171	100%	1020	974	1,008	1,008	1.38%	0	0%	0.00%	0	0%	0.00%	0	
8172	100%	1605	1514	1,577	1,577	2.16%	0	0%	0.00%	0	0%	0.00%	0	
8201	100%	1126	1045	1,101	1,101	1.51%	0	0%	0.00%	0	0%	0.00%	0	
8202	100%	806	757	791	791	1.08%	0	0%	0.00%	0	0%	0.00%	0	
8211	100%	1580	1479	1,549	1,549	2.12%	0	0%	0.00%	0	0%	0.00%	0	
8212	90%	335	308	327	294	0.40%	0	0%	0.00%	0	0%	0.00%	0	
8221	100%	3	10	5	5	0.01%	0	0%	0.00%	0	0%	0.00%	0	
8231	100%	1462	1382	1,437	1,437	1.97%	0	0%	0.00%	0	0%	0.00%	0	
8232	100%	1199	1118	1,174	1,174	1.61%	0	0%	0.00%	0	0%	0.00%	0	
8233	50%	2587	2560	2,560	1,280	1.75%	0	0%	0.00%	0	0%	0.00%	0	
8234	10%	1866	1759	1,833	183	0.25%	0	0%	0.00%	0	0%	0.00%	0	
8241	30%	1000	942	982	295	0.40%	0	0%	0.00%	0	0%	0.00%	0	
8242	50%	4255	4387	4,296	2,148	2.94%	0	0%	0.00%	0	0%	0.00%	0	
8243	50%	1114	1099	1,114	555	0.76%	0	0%	0.00%	0	0%	0.00%	0	
8502	25%	1209	1125	1,183	296	0.41%	0	0%	0.00%	0	0%	0.00%	0	
8511	85%	1058	995	1,039	883	1.21%	0	0%	0.00%	0	0%	0.00%	0	
8512	100%	357	365	359	359	0.49%	0	0%	0.00%	0	0%	0.00%	0	
8521	100%	1961	1821	1,059	1,059	1.45%	0	0%	0.00%	0	0%	0.00%	0	
8531	100%	1864	1794	1,842	1,842	2.52%	0	0%	0.00%	0	0%	0.00%	0	
8532	100%	1054	1018	1,043	1,043	1.43%	0	0%	0.00%	0	0%	0.00%	0	
8533	100%	709	699	706	706	0.97%	0	0%	0.00%	0	0%	0.00%	0	
8534	100%	1893	1795	1,863	1,863	2.55%	0	0%	0.00%	0	0%	0.00%	0	
8541	95%	2956	2879	2,932	2,785	3.82%	0	0%	0.00%	0	0%	0.00%	0	
8542	95%	1624	1510	1,589	1,510	2.07%	0	0%	0.00%	0	0%	0.00%	0	
8553	20%	2284	2250	2,274	455	0.62%	0	0%	0.00%	0	0%	0.00%	0	
8561	95%	2668	2524	2,624	2,493	3.42%	0	0%	0.00%	0	0%	0.00%	0	
							480	0.66%						
							1,409	1.93%						

Target Commercial Center

(Indian School Rd / Louisiana Blvd)

Trip Distribution Map (%)



Terry O. Brown, P.E.

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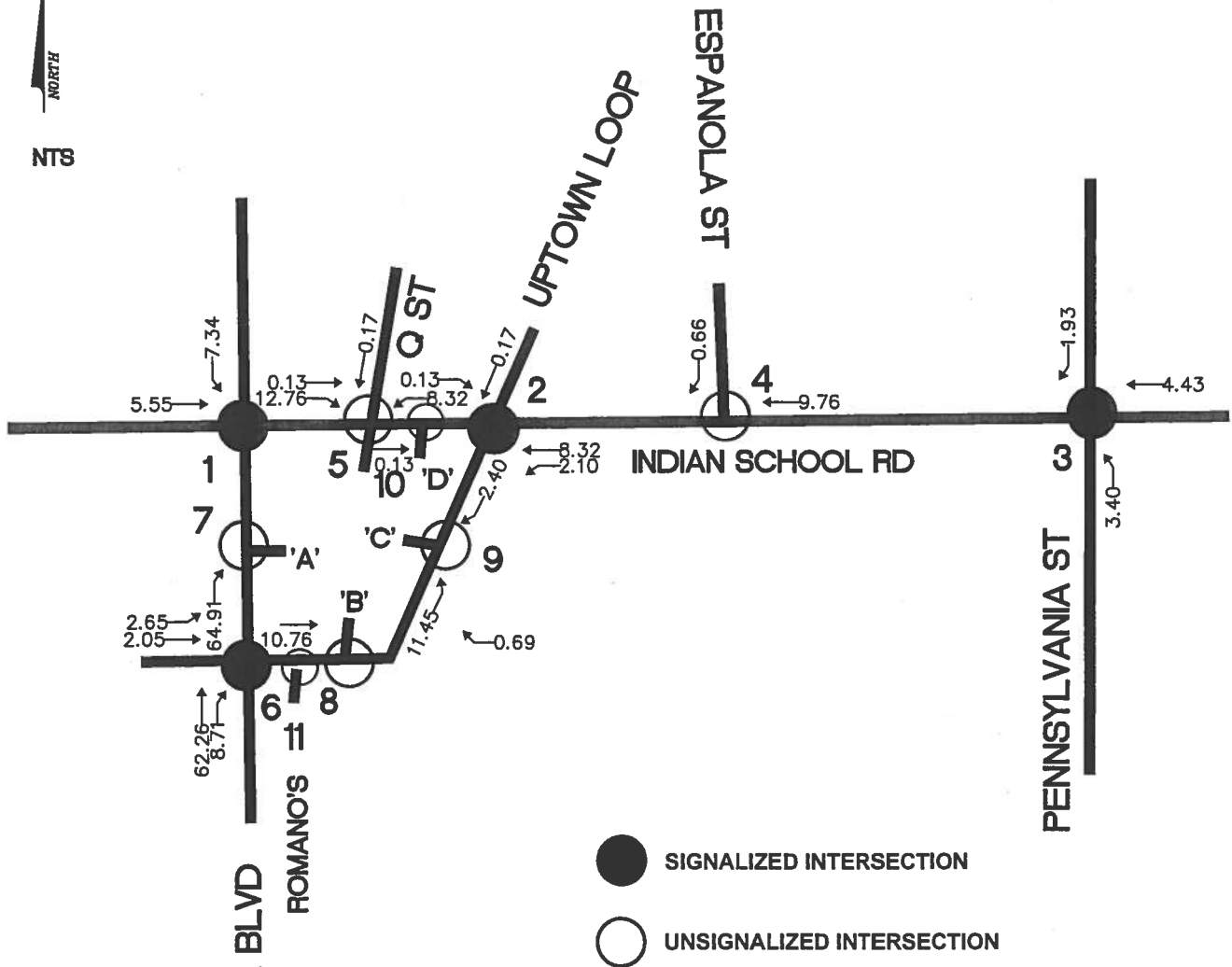
Target Commercial Center

(Indian School Rd / Louisiana Blvd)

Trip Assignments (% Entering)



NTS

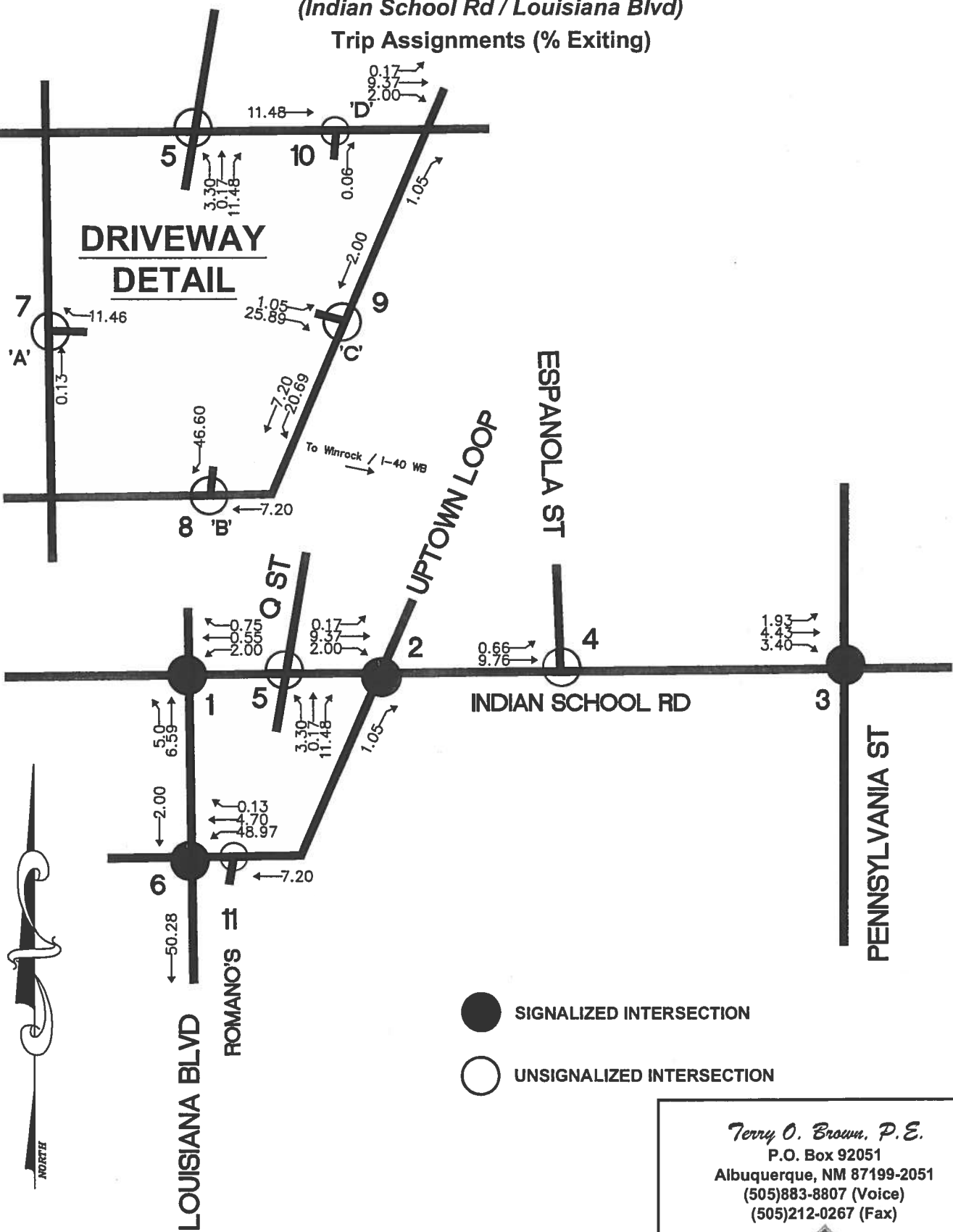


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Target Commercial Center

(Indian School Rd / Louisiana Blvd)

Trip Assignments (% Exiting)



NTS

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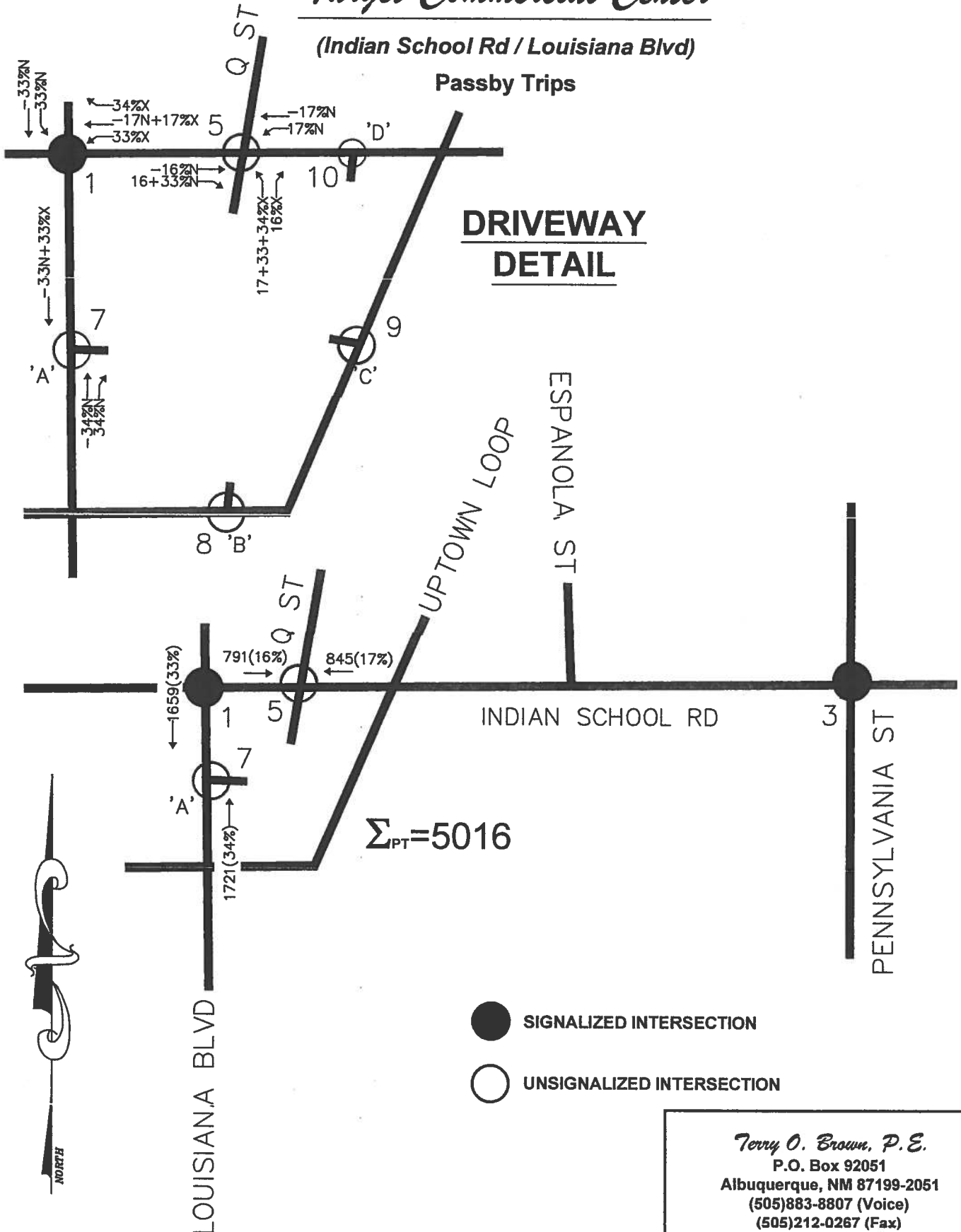
(505)212-0267 (Fax)

Target Commercial Center

(Indian School Rd / Louisiana Blvd)

Passby Trips

DRIVEWAY DETAIL



● SIGNALIZED INTERSECTION

○ UNSIGNALIZED INTERSECTION

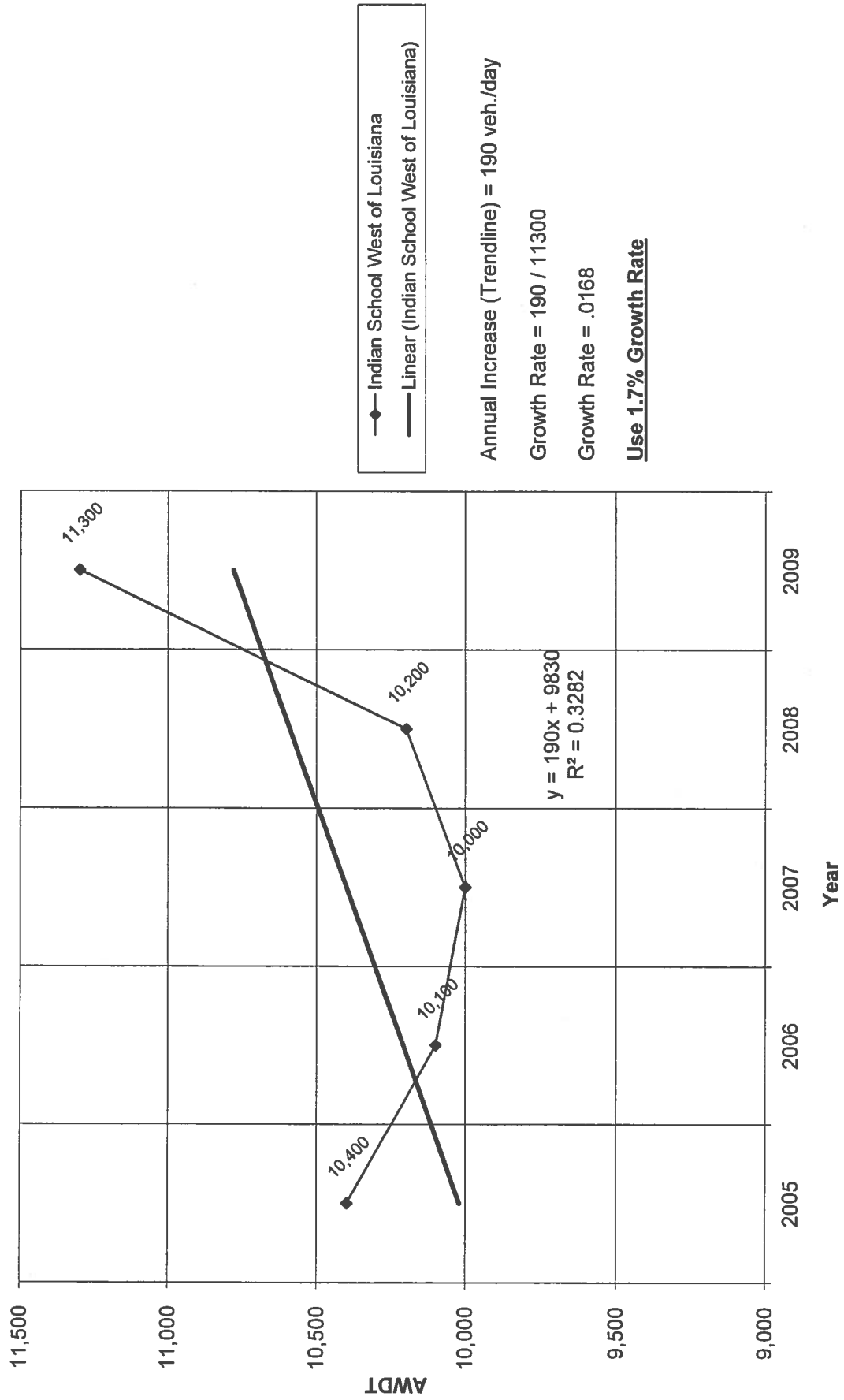
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Target Commercial Center **Historic Growth Rate Table**

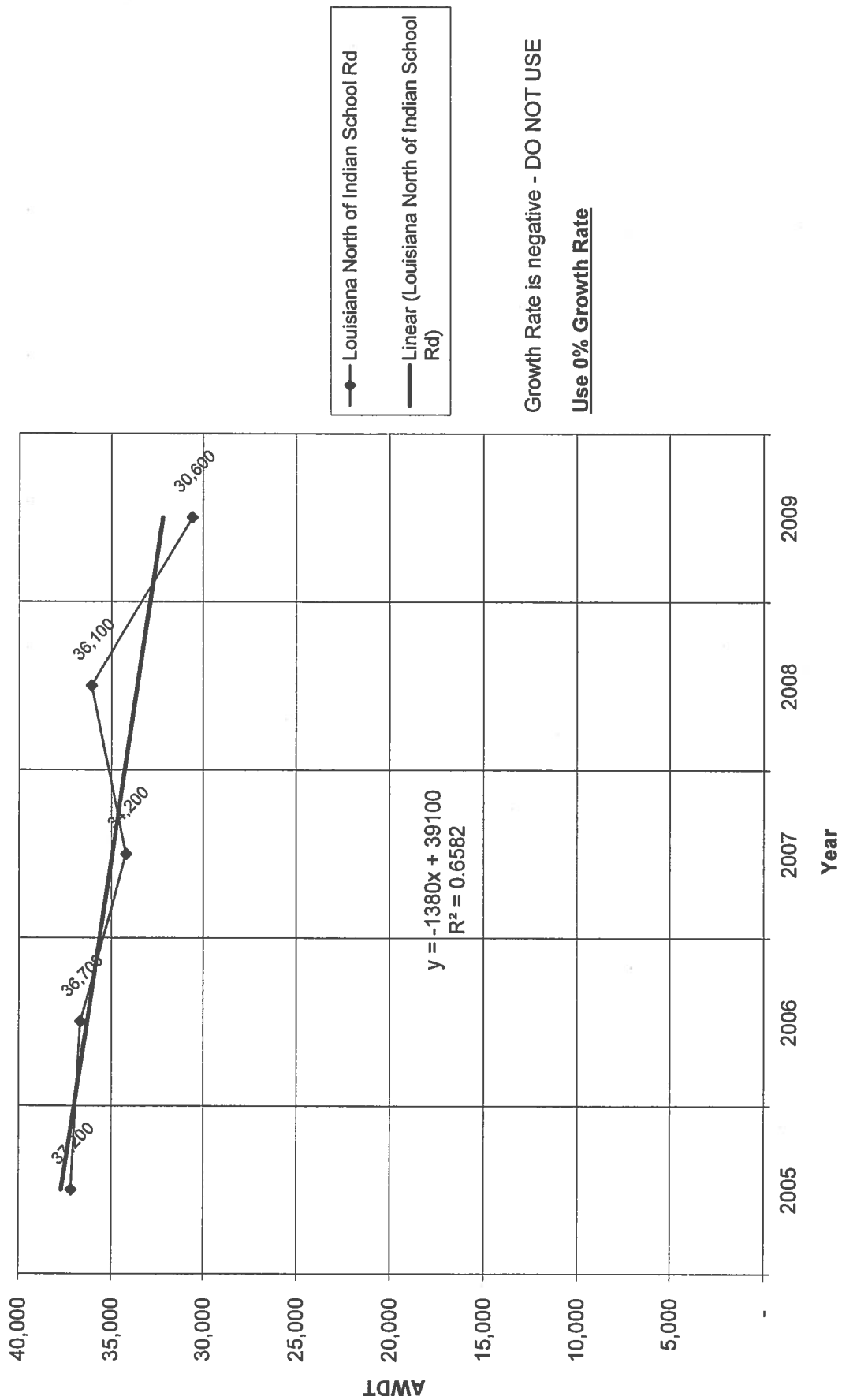
Traffic Flows from MRCOG Map

	2005	2006	2007	2008	2009
Indian School West of Louisiana	10,400	10,100	10,000	10,200	11,300
Louisiana North of Indian School Rd	37,200	36,700	34,200	36,100	30,600
Uptown North of Indian School	-	-	-	4,100	4,000
Pennsylvania North of Indian School	6,000	9,200	9,200	8,900	9,600
Indian School East of Pennsylvania	11,200	11,100	10,900	15,700	15,400
Pennsylvania South of Indian School	9,400	9,300	9,200	9,100	8,900
Indian School West of Pennsylvania	13,400	12,500	12,300	12,100	13,700
Indian School btwn Uptown & Louisiana	17,000	16,900	16,700	13,700	13,400
Louisiana between ISR & Uptown	41,600	41,200	40,700	38,100	37,100
Louisiana South of Uptown Loop	27,600	27,300	27,000	24,800	24,400
Uptown West of Louisiana	3,900	4,200	4,200	3,500	4,200

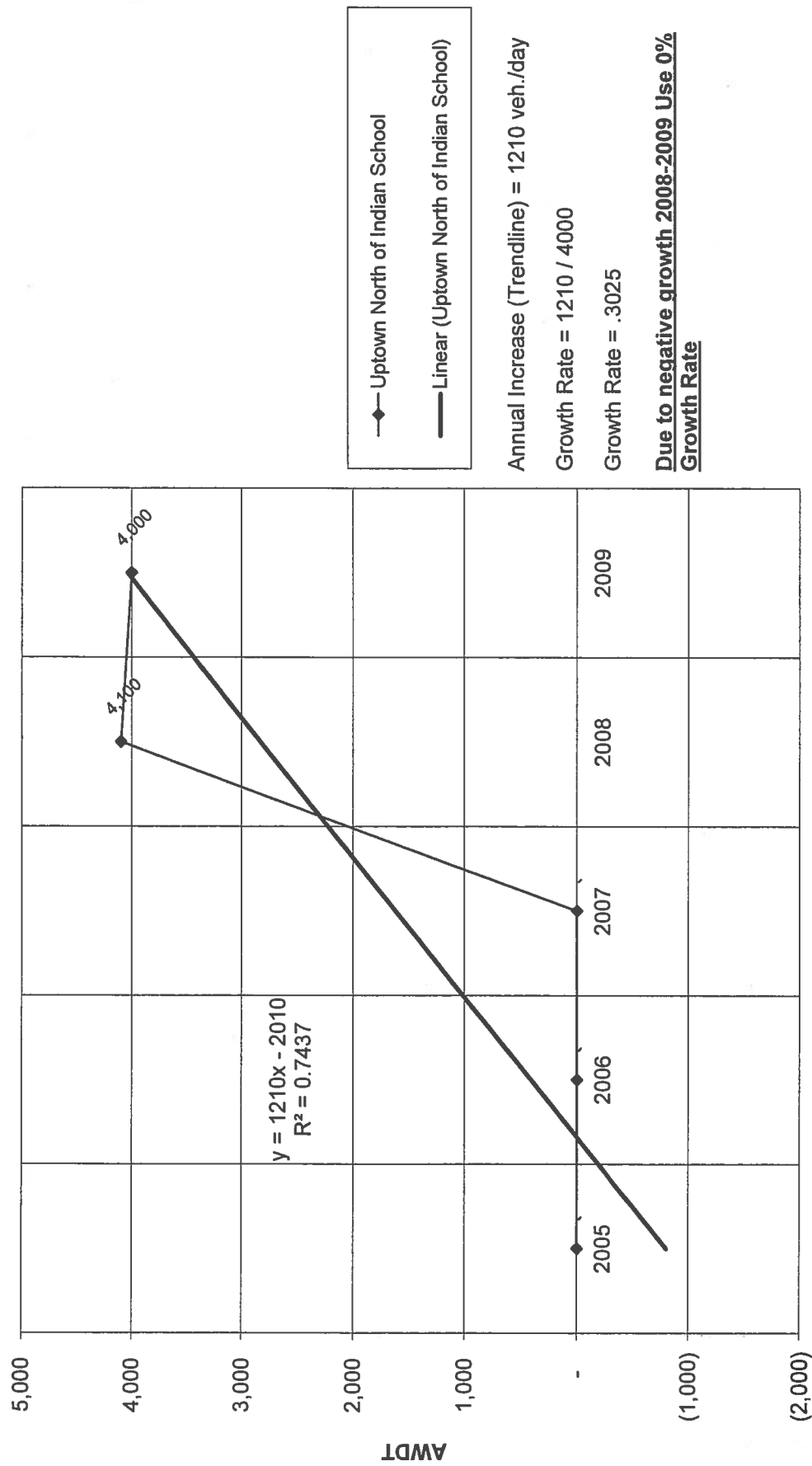
Historic Growth Chart Indian School West of Louisiana (2005-2009)



Historic Growth Chart Louisiana North of Indian School Rd (2005-2009)

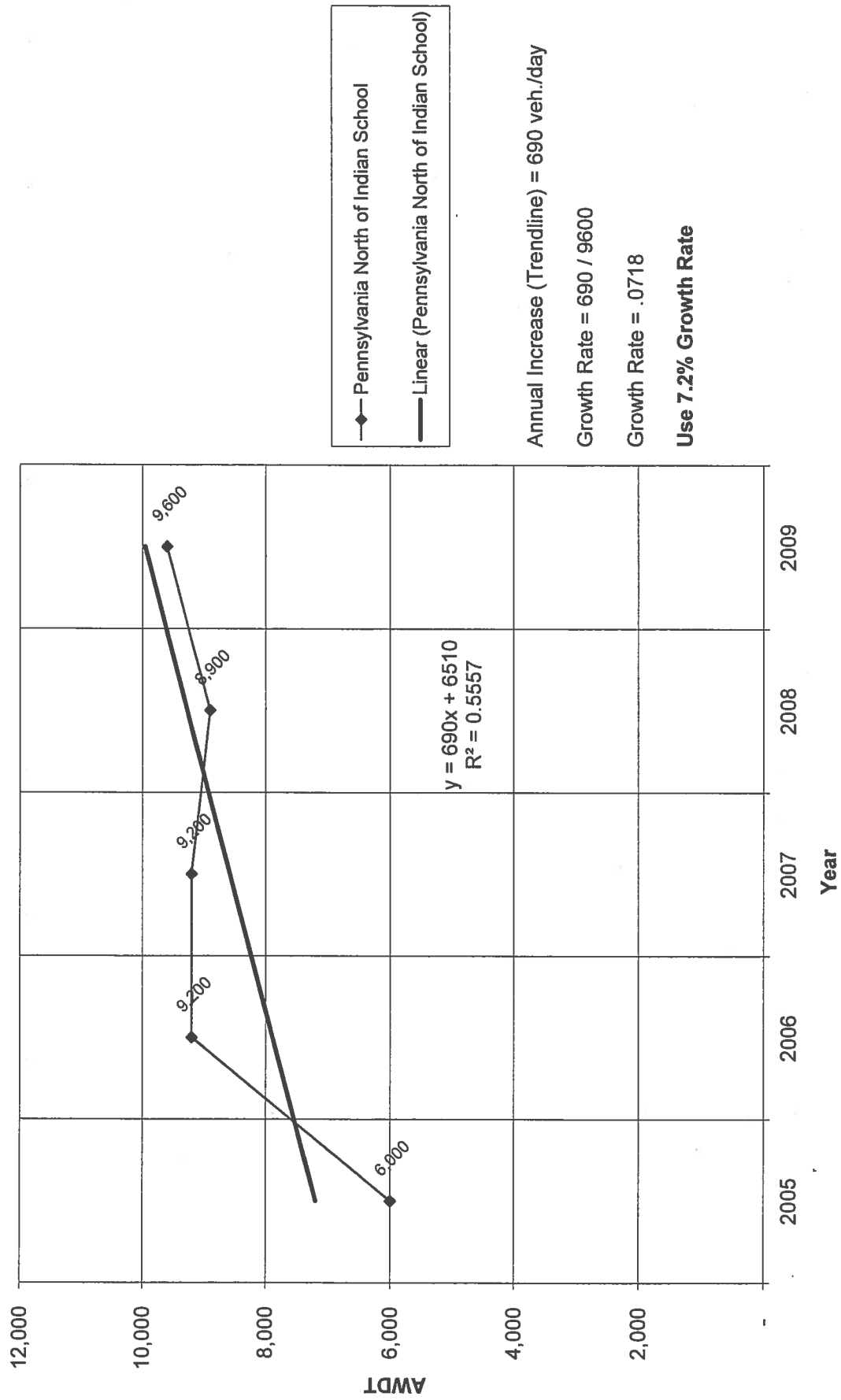


Historic Growth Chart Uptown North of Indian School (2005-2009)

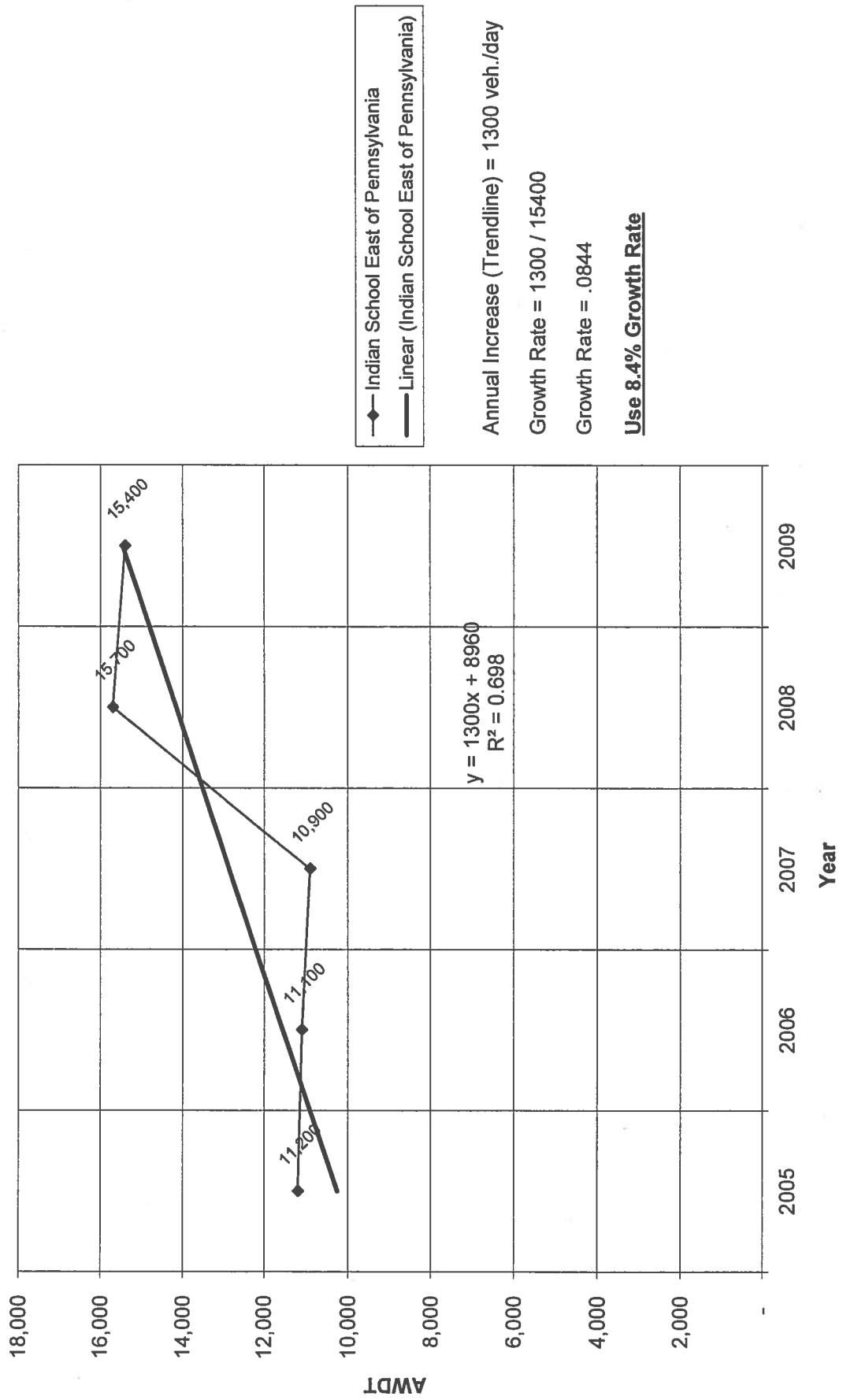


Year

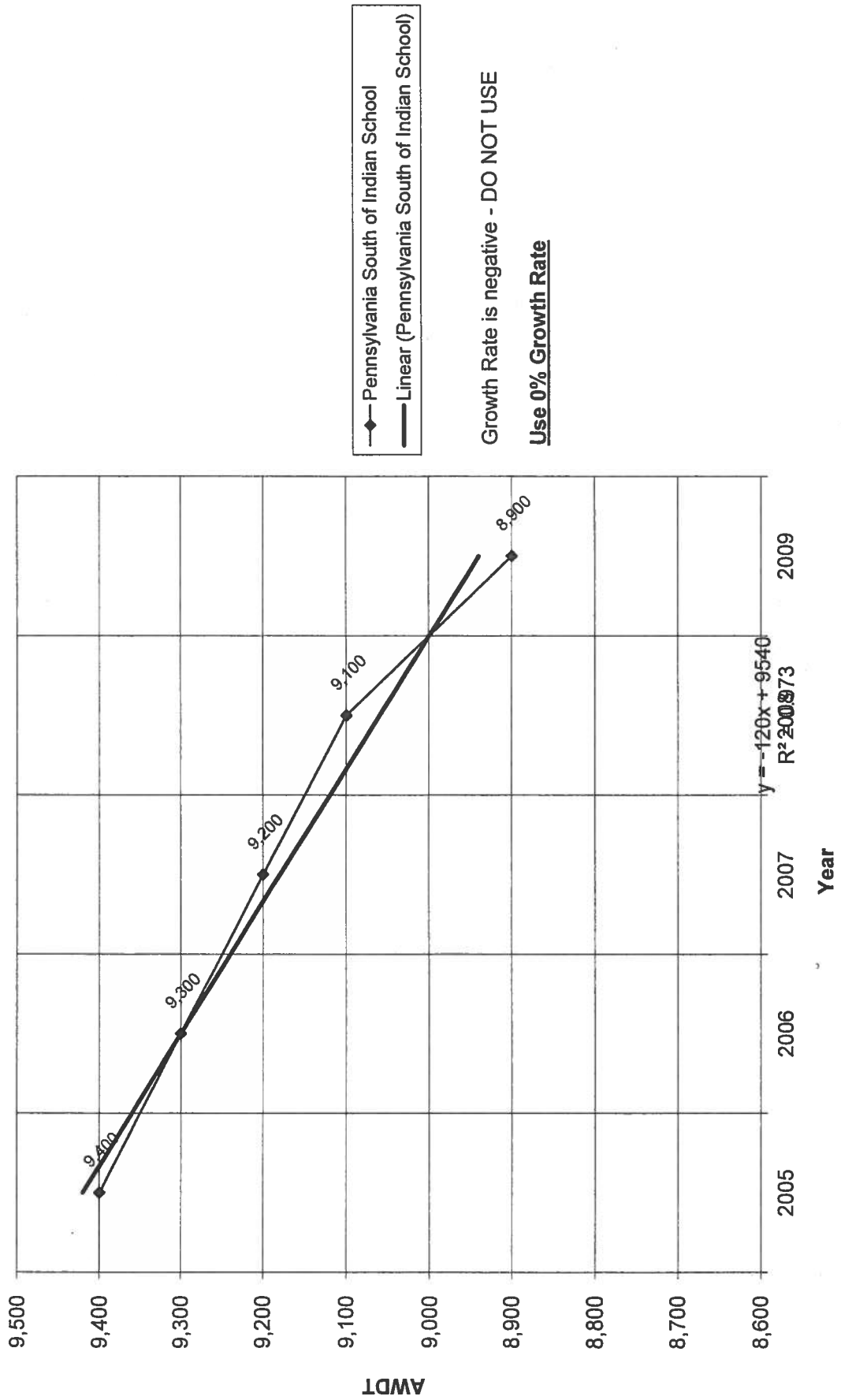
Historic Growth Chart Pennsylvania North of Indian School (2005-2009)



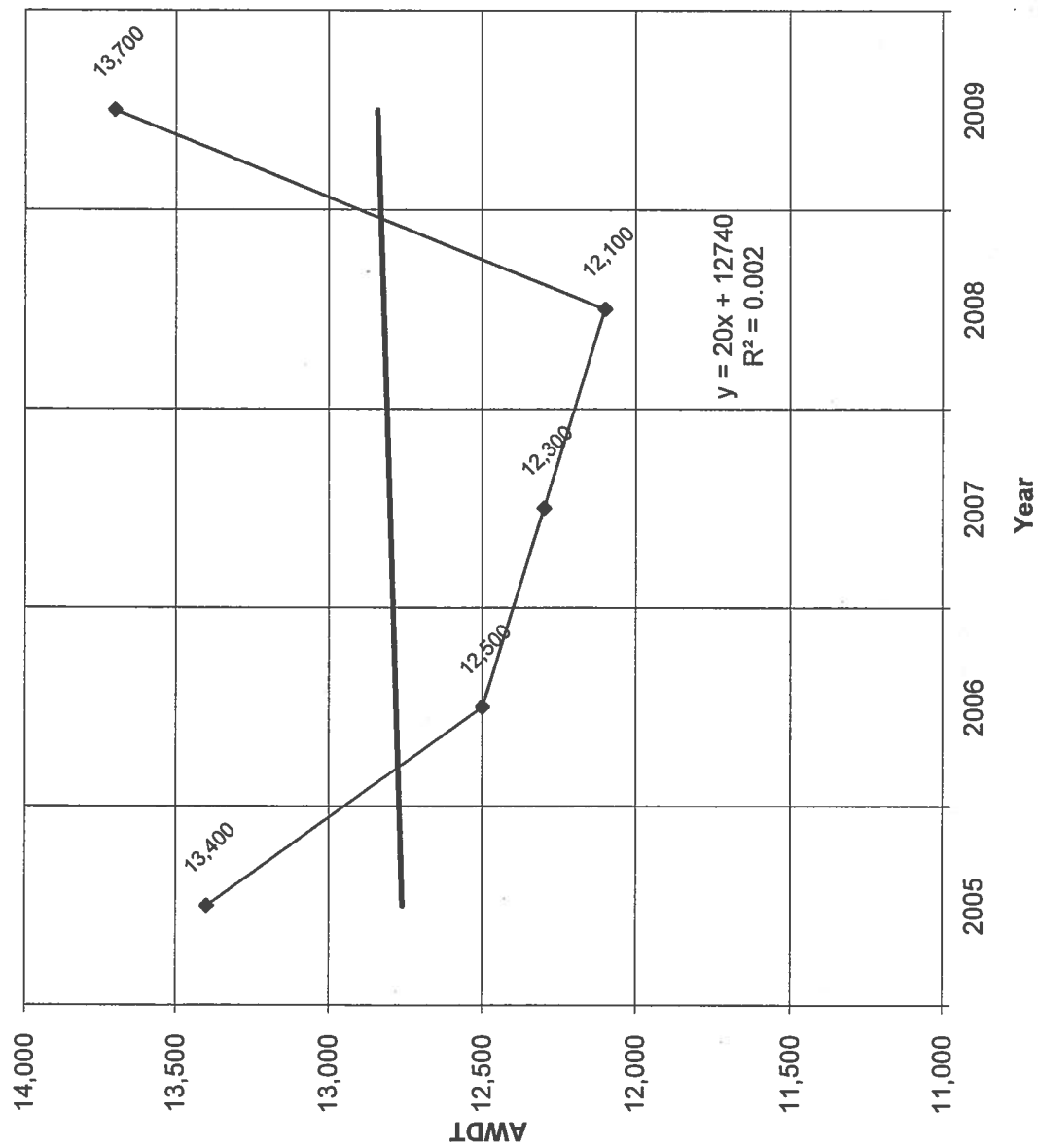
Historic Growth Chart Indian School East of Pennsylvania (2005-2009)



Historic Growth Chart Pennsylvania South of Indian School (2005-2009)



Historic Growth Chart Indian School West of Pennsylvania (2005-2009)



◆ Indian School West of Pennsylvania
 — Linear (Indian School West of Pennsylvania)

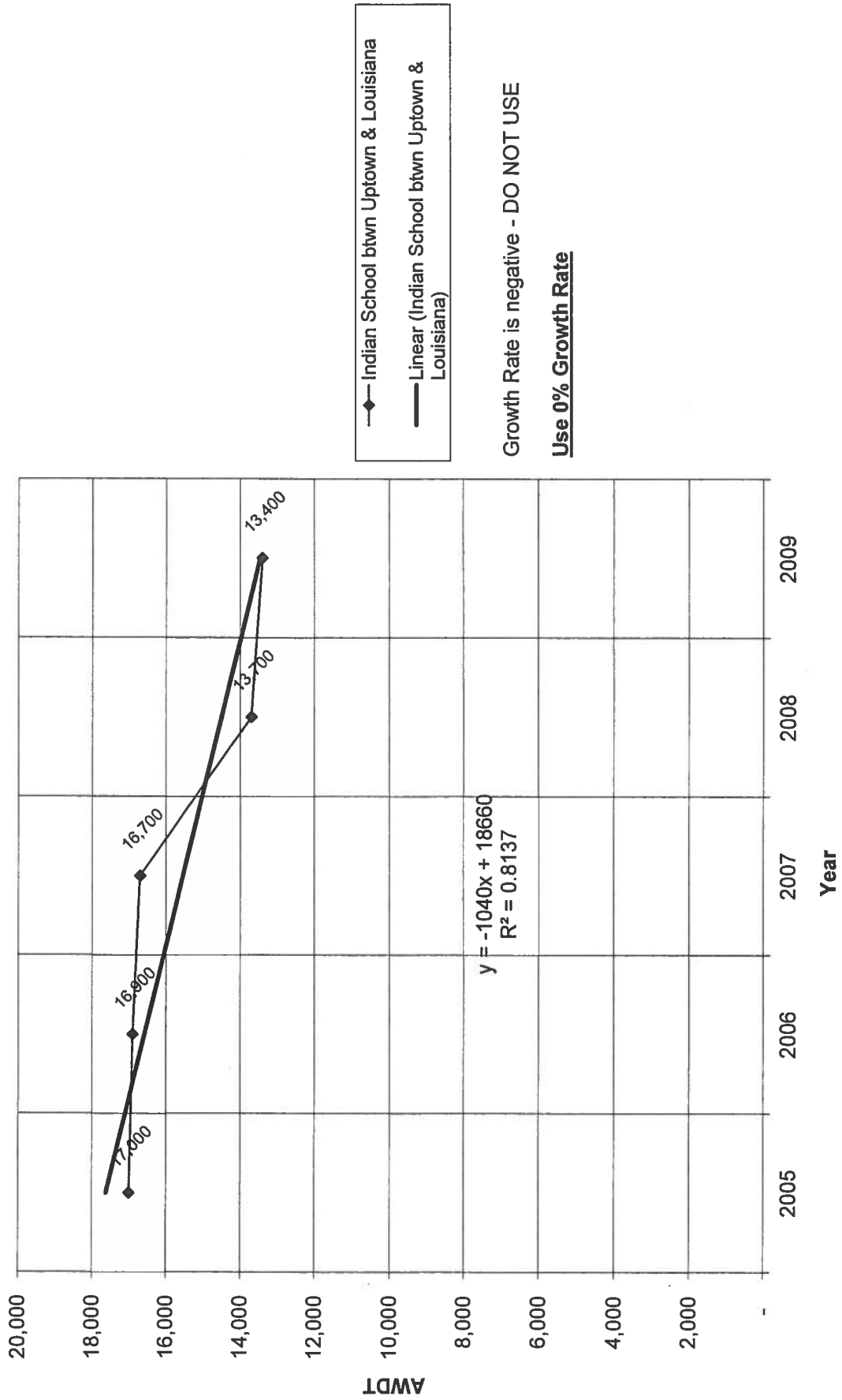
Annual Increase (Trendline) = 20 veh./day

Growth Rate = 20 / 13700

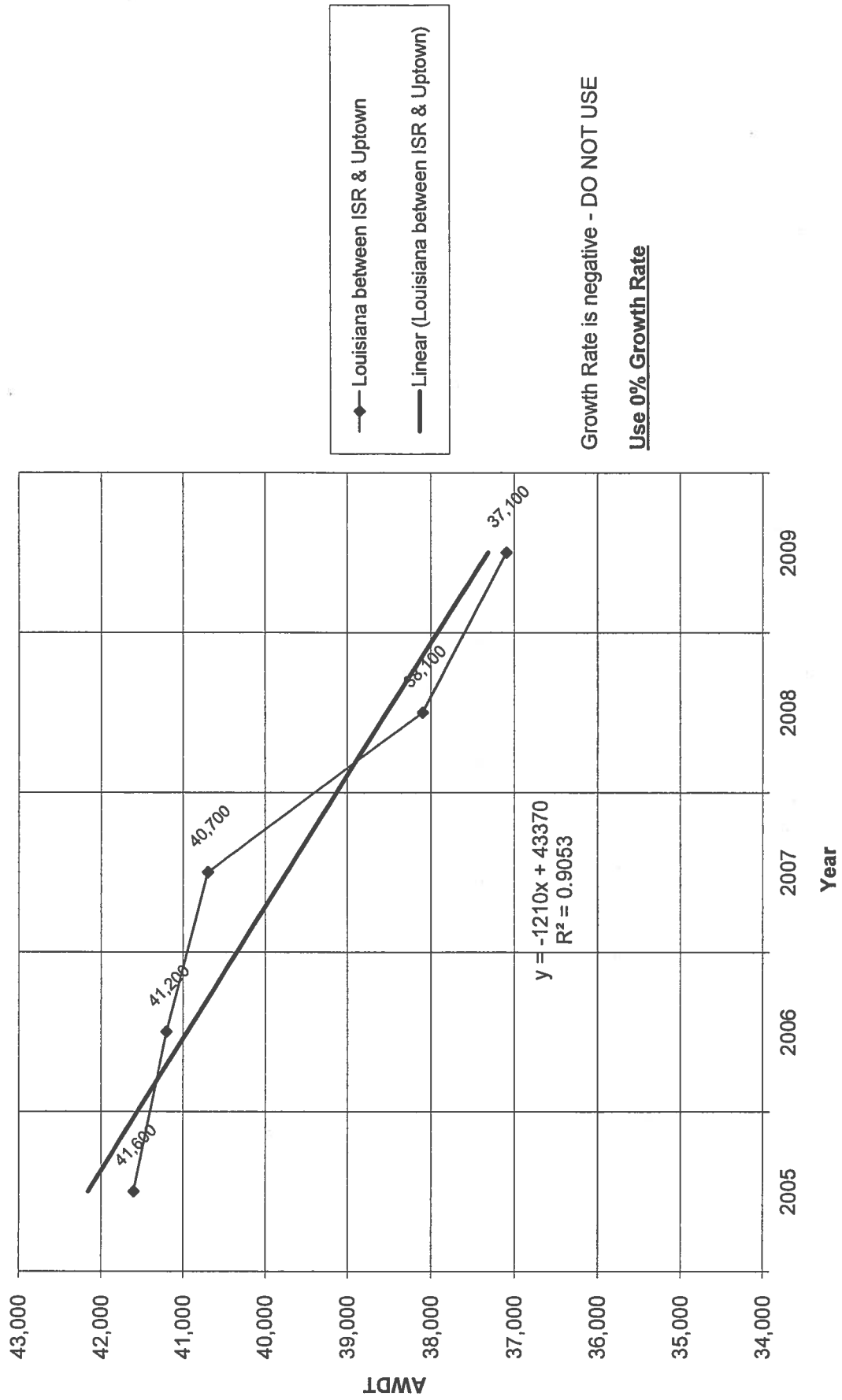
Growth Rate = .0014

Use 0.14% Growth Rate

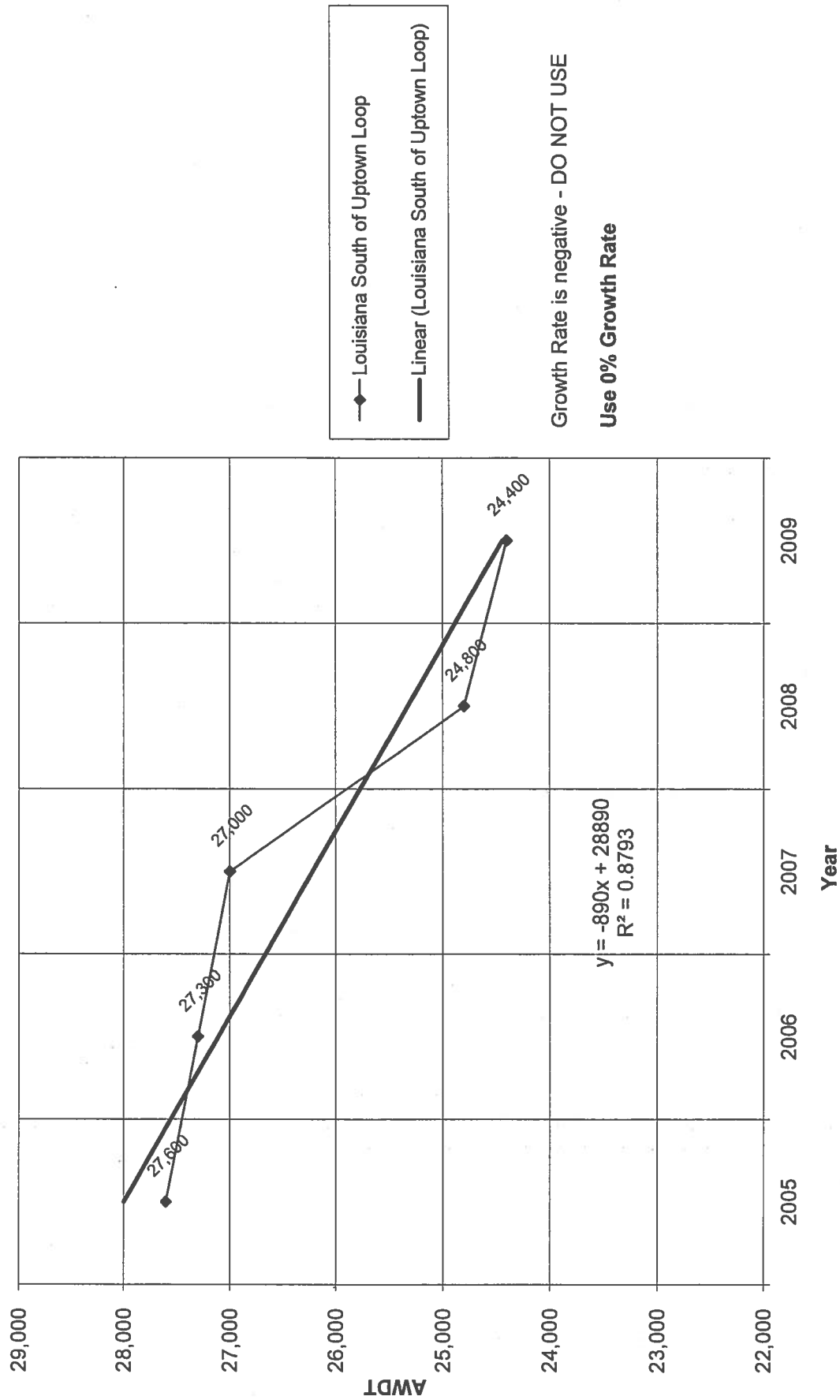
Historic Growth Chart Indian School btwn Uptown & Louisiana (2005-2009)



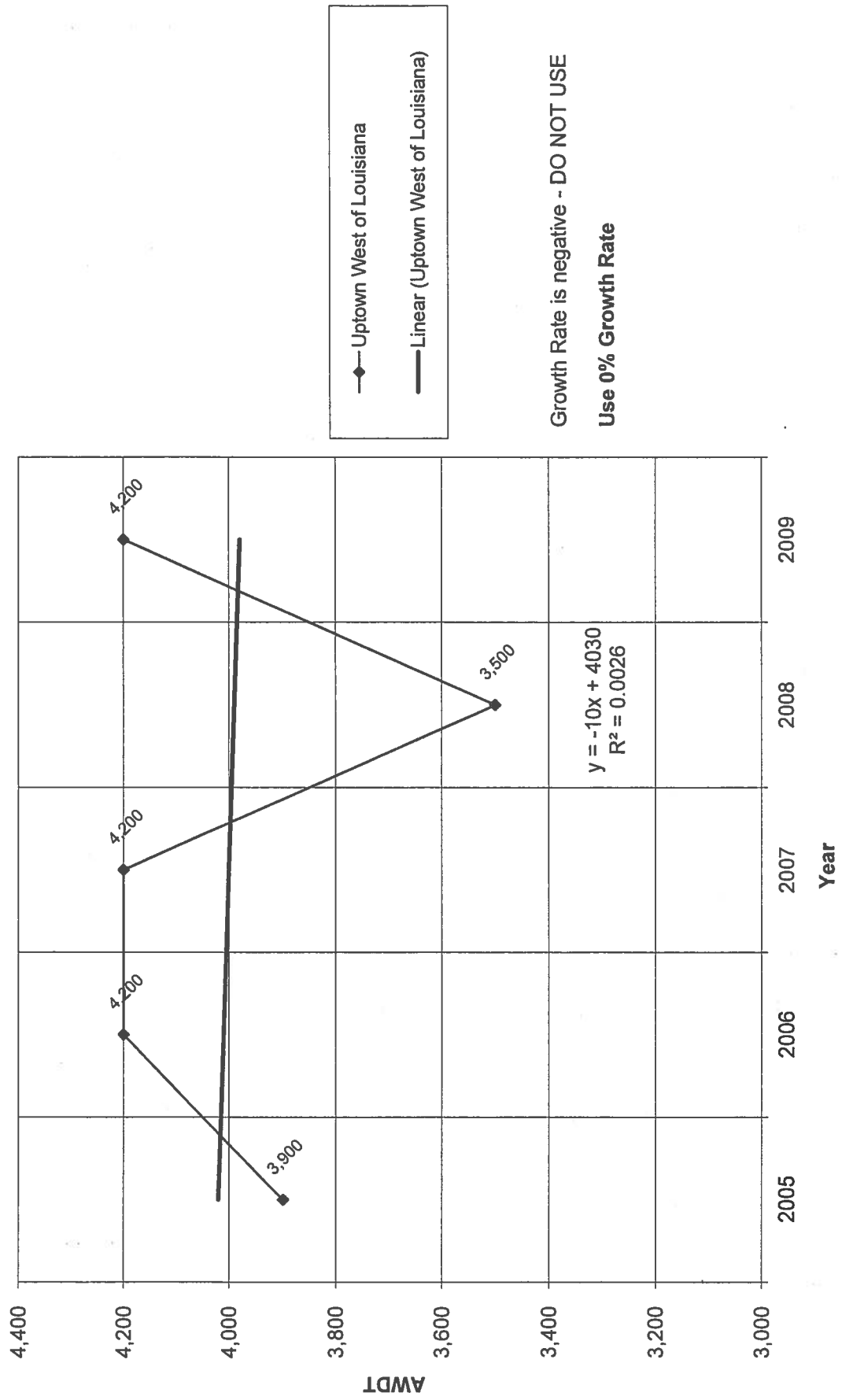
Historic Growth Chart Louisiana between ISR & Uptown south (2005-2009)



Historic Growth Louisiana South of Uptown Loop (2005-2009)



Historic Growth Chart Uptown West of Louisiana (2005-2009)



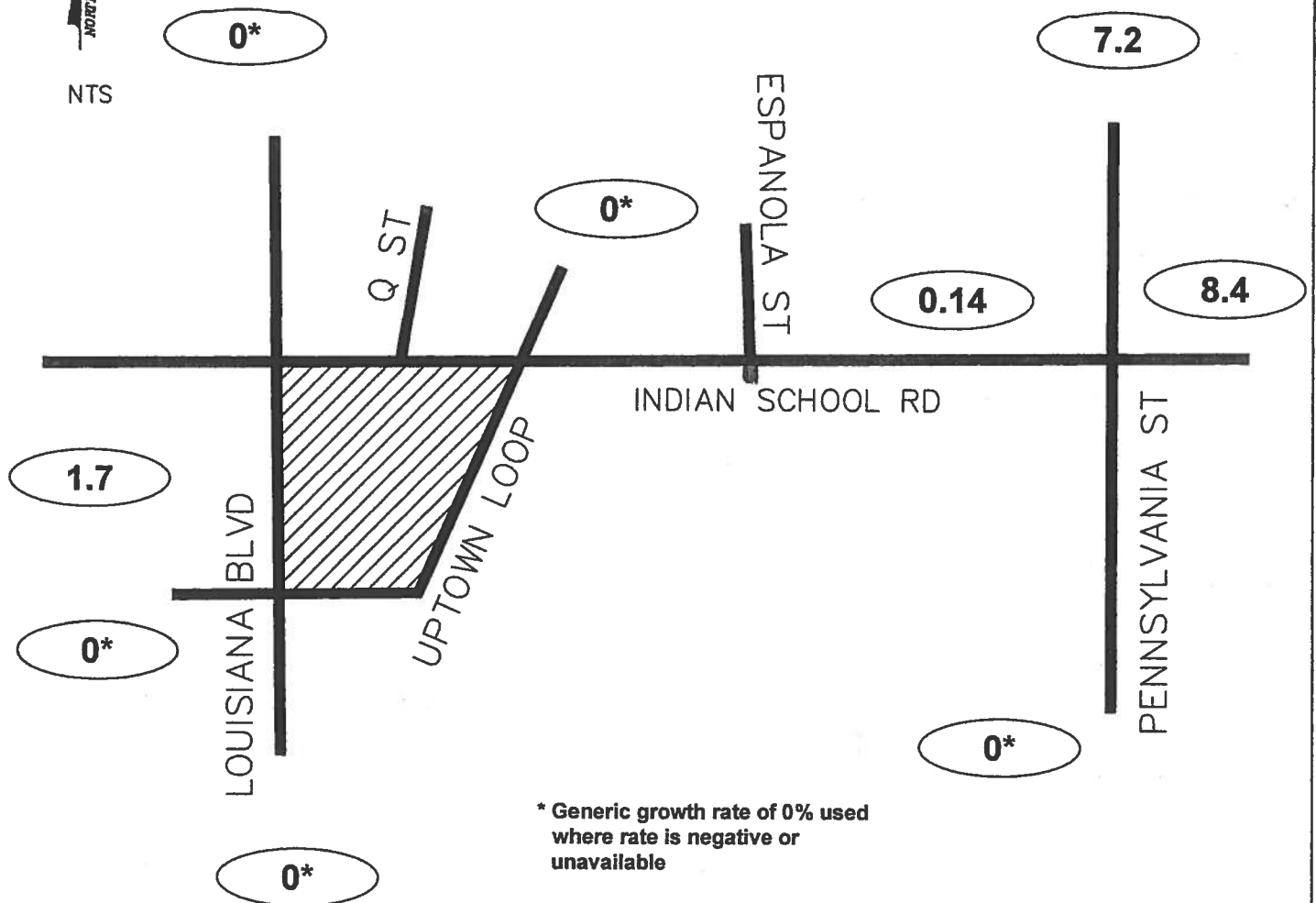
Target Commercial Center

(Indian School Rd / Louisiana Blvd)

Growth Rate Map (%)



NTS



* Generic growth rate of 0% used
where rate is negative or
unavailable

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

Target Commercial Center
Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2012) - 100% Development

INTERSECTION: Summary

Indian School Rd / Louisiana Blvd			0.77	0.95			0.82			0.86			PHF
(1)	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	20	99	57	181	301	53	204	839	162	54	813	74	
2012 (NO BUILD - A.M.)	20	99	57	181	301	53	204	839	162	54	813	74	
2012 (BUILD - A.M.)	20	107	57	183	302	54	209	845	162	65	813	74	

0.76			0.88			0.88			0.95			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	114	385	204	323	242	184	98	1,440	306	218	1,255	90
2012 (NO BUILD - P.M.)	114	389	209	323	245	191	101	1,447	306	229	1,266	90
2012 (BUILD - P.M.)	114	411	209	363	247	227	121	1,473	306	291	1,234	90

Indian School Rd / Uptown Loop			0.92			0.83			0.75			0.81			PHF
(2)	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)					
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	64	232	2	99	501	66	8	10	38	24	5	23			
2012 (NO BUILD - A.M.)	64	232	2	99	501	66	8	10	38	24	5	23			
2012 (BUILD - A.M.)	64	241	4	102	513	66	8	10	39	24	5	23			

	0.91			0.89			0.82			0.75			PHF
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	164	621	35	86	511	55	55	40	85	126	35	90	
2012 (NO BUILD - P.M.)	164	637	35	86	521	55	55	40	85	126	35	90	
2012 (BUILD - P.M.)	165	675	43	95	555	55	55	40	89	126	36	90	

Indian School Rd / Pennsylvania St			0.85	0.77			0.80			0.95			PHF
(3)	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	48	141	72	98	400	41	89	167	56	50	263	142	
2012 (NO BUILD - A.M.)	48	141	72	98	400	41	89	167	56	50	263	142	
2012 (BUILD - A.M.)	50	145	75	98	407	41	94	167	56	50	263	145	

0.85			0.94			0.91			0.94			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	137	477	134	80	346	42	89	313	99	53	239	87
2012 (NO BUILD - P.M.)	137	477	134	98	346	42	89	318	110	53	247	87
2012 (BUILD - P.M.)	145	495	148	98	364	42	103	318	110	53	247	95

Indian School Rd / Espanola St			0.88	0.92			0.85			0.75			PHF
(4)	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Espanola St)			Southbound (Espanola St)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	16	267	0	2	582	8	0	0	0	3	11	9	
2012 (NO BUILD - A.M.)	16	267	0	2	582	8	0	0	0	3	11	9	
2012 (BUILD - A.M.)	17	276	0	2	596	8	0	0	0	3	11	10	

0.82													0.88				0.75				0.75				PHF																																																																																																																																			
Eastbound (Indian School Rd)						Westbound (Indian School Rd)						Northbound (Espanola St)				Southbound (Espanola St)																																																																																																																																												
Left													Thru													Right																																																																																																																																		
Existing (2012)	50													721													22													15													491													1													16													2													20													11													1													34												
	50													721													38													15													491													1													26													2													20													11													1													34												
	53													760													38													15													531													1													26													2													20													11													1													37												

Target Commercial Center
Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2012) - 100% Development

INTERSECTION: Summary

Indian School Rd / Q St

(5)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.91			0.93			0.85			0.75			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
61	282	0	0	523	10	0	0	0	2	0	31	
61	282	0	0	523	10	0	0	0	2	0	31	
61	282	19	12	523	10	3	0	11	2	0	31	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.86			0.90			0.85			0.75			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
72	703	0	0	749	86	0	0	0	19	0	105	
72	719	0	0	759	86	0	0	0	19	0	105	
72	704	100	50	743	86	94	1	62	19	1	105	

Am Pkwy / Uptown Lp / Louisiana Blvd

(6)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.85			0.96			0.86			0.90			PHF
Eastbound (Am Pkwy / Uptown Lp)			Westbound (Am Pkwy / Uptown Lp)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
20	5	132	42	4	0	284	1,186	53	2	989	39	
20	5	132	42	4	0	284	1,186	53	2	989	39	
24	8	132	88	8	0	284	1,278	66	2	991	39	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.77			0.67			0.92			0.93			PHF
Eastbound (Am Pkwy / Uptown Lp)			Westbound (Am Pkwy / Uptown Lp)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
31	16	270	83	3	3	135	1,677	132	19	1,596	28	
31	17	270	83	3	3	136	1,687	132	35	1,596	28	
42	25	270	278	22	4	136	1,939	167	35	1,604	28	

Driveway 'A' / Louisiana Blvd

(7)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.85			0.85			0.90			0.90			PHF
Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	1,206	0	0	1,030	0	
0	0	0	0	0	0	0	1,206	0	0	1,030	0	
0	0	0	0	0	11	0	1,206	96	0	1,030	0	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.85			0.85			0.93			0.93			PHF
Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	1,711	0	0	1,643	0	
0	0	0	0	0	0	0	1,721	0	0	1,659	0	
0	0	0	0	0	46	0	1,689	296	0	1,659	0	

Uptown Loop / Driveway 'B'

(8)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.96			0.96			0.85			0.85			PHF
Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	60	0	0	46	0	0	0	0	0	0	0	
0	60	0	0	46	0	0	0	0	0	0	0	
0	76	0	0	53	0	0	0	0	0	0	44	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.75			0.75			0.85			0.85			PHF
Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	167	0	0	89	0	0	0	0	0	0	0	
0	184	0	0	89	0	0	0	0	0	0	0	
0	228	0	0	118	0	0	0	0	0	0	186	

Target Commercial Center
Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2012) - 100% Development

INTERSECTION: Summary

Driveway 'C' / Uptown Loop

(9)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.85			0.85			0.75			0.75			PHF
Eastbound (Driveway 'C')			Westbound (Driveway 'C')			Northbound (Uptown Loop)			Southbound (Uptown Loop)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	56	0	0	106	0	
0	0	0	0	0	0	0	56	0	0	106	0	
1	0	24	0	0	0	17	56	0	0	108	4	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.85			0.85			0.82			0.82			PHF
Eastbound (Driveway 'C')			Westbound (Driveway 'C')			Northbound (Uptown Loop)			Southbound (Uptown Loop)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	180	0	0	156	0	
0	0	0	0	0	0	0	180	0	0	156	0	
4	0	103	0	0	0	46	180	0	0	164	10	

Indian School Rd / Driveway 'D'

(10)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.83			0.83			0.85			0.85			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Driveway 'D')			Southbound (Driveway 'D')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	298	0	0	532	0	0	0	0	0	0	0	
0	298	0	0	532	0	0	0	0	0	0	0	
0	309	0	0	532	0	0	0	0	0	0	0	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.89			0.89			0.85			0.85			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Driveway 'D')			Southbound (Driveway 'D')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	820	0	0	656	0	0	0	0	0	0	0	
0	836	0	0	666	0	0	0	0	0	0	0	
0	883	0	0	666	0	0	0	0	0	0	0	

Uptown Loop / Romano's drive

(11)

3.0% Truck

Existing (2012)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

0.96			0.96			0.85			0.85			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Romano's drive)			Southbound (Romano's drive)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	60	3	46	46	0	0	0	5	0	0	0	
0	60	3	46	46	0	0	0	5	0	0	0	
0	76	3	65	53	0	0	0	6	0	0	0	

Existing (2012)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

0.75			0.75			0.85			0.85			PHF
Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Romano's drive)			Southbound (Romano's drive)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	167	31	56	89	0	0	0	22	0	0	0	
0	184	31	56	89	0	0	0	22	0	0	0	
0	228	31	139	118	0	0	0	25	0	0	0	

Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Louisiana Blvd

INTERSECTION: E-W Street: Indian School Rd (1)
 N-S Street: Louisiana Blvd

Year of Existing Counts 2011
 Implementation Year 2012

Growth Rates 1.70% 0.00% 0.00% 0.00%

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	20	97	56	181	301	53	204	839	162	54	813	74
Background Traffic Growth	0	2	1	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	20	99	57	181	301	53	204	839	162	54	813	74
Percent Commercial Trips Generated(Entering)	0.00%	5.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.34%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	2.00%	0.55%	0.75%	5.00%	6.59%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	8	0	2	1	1	5	6	0	11	0	0
Total AM Peak Hour BUILD Volumes	20	107	57	183	302	54	209	845	162	65	813	74

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	112	379	201	323	242	184	98	1,440	306	218	1,255	90
Background Traffic Growth	2	6	3	0	0	0	0	0	0	0	0	0
Subtotal	114	385	204	323	242	184	98	1,440	306	218	1,255	90
Winrock Theater	0	4	5	0	3	7	3	7	0	11	11	0
Subtotal (NO BUILD - P.M.)	114	389	209	323	245	191	101	1,447	306	229	1,266	90
Percent Commercial Trips Generated(Entering)	0.00%	5.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.34%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	2.00%	0.55%	0.75%	5.00%	6.59%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	22	0	8	2	3	20	26	0	30	0	0
Subtotal PM Pk Hr. BUILD Volumes	114	411	209	331	247	194	121	1,473	306	259	1,266	90
Pass-by Trip Adjustments	0	0	0	32	0	33	0	0	0	32	-32	0
Total PM Peak Hour BUILD Volumes	114	411	209	363	247	227	121	1,473	306	291	1,234	90

Number of Commercial Trips Generated

Entering	148	94	A.M.	100% Commercial Development
Exiting	405	399	P.M.	

Pass-by Trip Calculations:

AM Pass-by Trips
 Percent Entering
 Volume Entering
 Percent Exiting
 Volume Exiting
Net AM Passby Trips

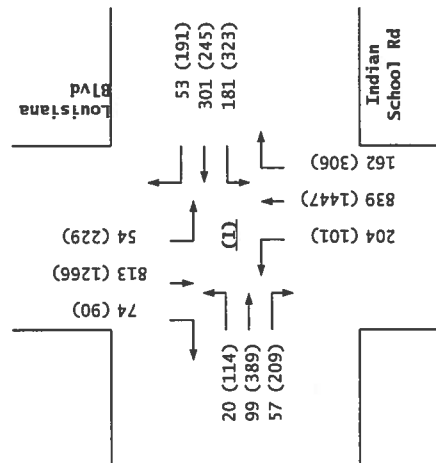
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Entering	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Entering	0	0	0	0	0	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Net AM Passby Trips	0	0	0	0	0	0	0	0	0	0	0	0

PM Pass-by Trips
 Percent Entering
 Volume Entering
 Percent Exiting
 Volume Exiting
Net PM Passby Trips

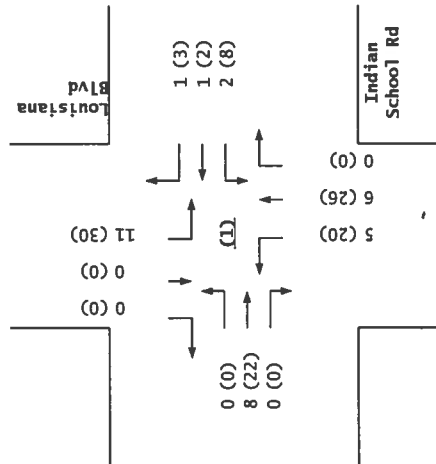
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Entering	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.00%	-33.00%	0.00%
Volume Entering	0	0	0	0	0	0	0	0	0	32	-32	0
Percent Exiting	0.00%	0.00%	0.00%	33.00%	0.00%	34.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	32	0	33	0	0	0	0	0	0
Net PM Passby Trips	0	0	0	32	0	33	0	0	0	32	-32	0

Entering Exiting
 Pass-by Trips 0 0 AM
 97 97 PM

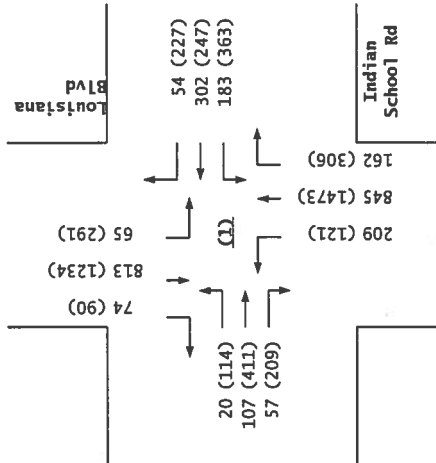
2012
NO BUILD



Trips



2012
BUILD



Indian School Rd / Louisiana Blvd

Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Uptown Loop

INTERSECTION: E-W Street: Indian School Rd (2)
 N-S Street: Uptown Loop

Year of Existing Counts 2011
 Implementation Year 2012

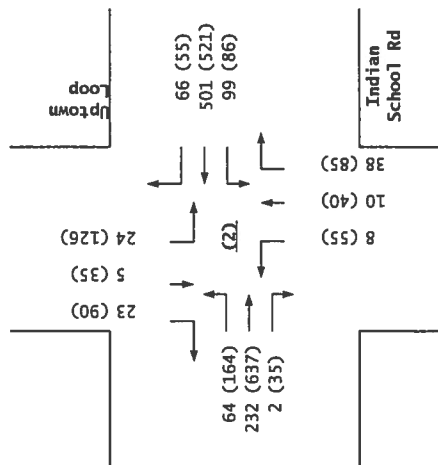
Growth Rates		0.00%			0.00%			0.00%			0.00%		
		Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
M.)		64	232	2	99	501	66	8	10	38	24	5	23
		0	0	0	0	0	0	0	0	0	0	0	0
		64	232	2	99	501	66	8	10	38	24	5	23
	ed(Entering)	0.00%	0.13%	0.00%	2.10%	8.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.17%	0.00%
	ed(Exiting)	0.17%	9.31%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.05%	0.00%	0.00%	0.00%
		0	9	2	3	12	0	0	0	1	0	0	0
UILD Volumes		64	241	4	102	513	66	8	10	39	24	5	23

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	164	621	35	86	511	55	55	40	85	126	35	90
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	164	621	35	86	511	55	55	40	85	126	35	90
Winrock Theater	0	16	0	0	10	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	164	637	35	86	521	55	55	40	85	126	35	90
Percent Commercial Trips Generated(Entering)	0.00%	0.13%	0.00%	2.10%	8.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.17%	0.00%
Percent Commercial Trips Generated(Exiting)	0.17%	9.31%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.05%	0.00%	0.00%	0.00%
Total Trips Generated	1	38	8	9	34	0	0	0	4	0	1	0
Total PM Peak Hour BUILD Volumes	165	675	43	95	555	55	55	40	89	126	36	90

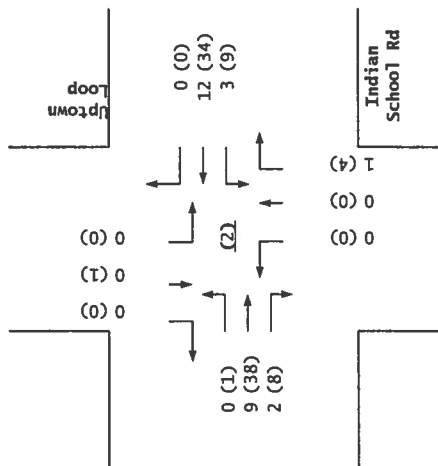
	Entering	Exiting	
Number of Commercial Trips Generated	148	94	A.M.
	405	399	P.M.

100% Commercial Development

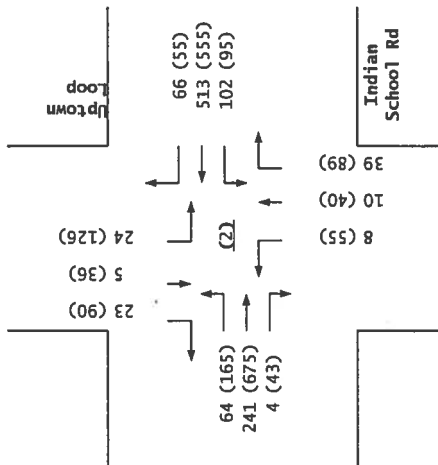
2012
NO BUILD



Trips



2012
BUILD



Indian School Rd / Uptown Loop

Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Pennsylvania St

INTERSECTION: E-W Street: Indian School Rd (3)

N-S Street: Pennsylvania St

Year of Existing Counts 2011

Implementation Year 2012

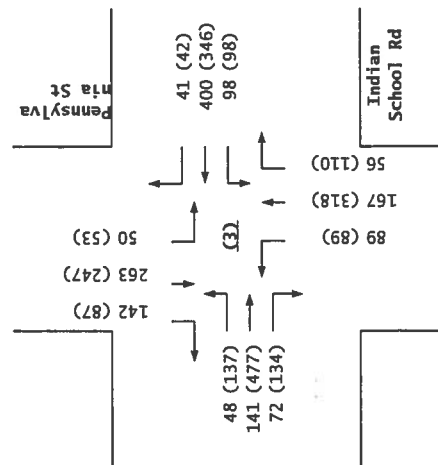
Growth Rates 0.14% 8.40% 0.00% 7.20%

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	48	141	72	90	369	38	89	167	56	47	245	132
Background Traffic Growth	0	0	0	8	31	3	0	0	0	3	18	10
Subtotal (NO BUILD - A.M.)	48	141	72	98	400	41	89	167	56	50	263	142
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	4.43%	0.00%	3.40%	0.00%	0.00%	0.00%	0.00%	1.93%
Percent Commercial Trips Generated(Exiting)	1.93%	4.43%	3.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	2	4	3	0	7	0	5	0	0	0	0	3
Total AM Peak Hour BUILD Volumes	50	145	75	98	407	41	94	167	56	50	263	145

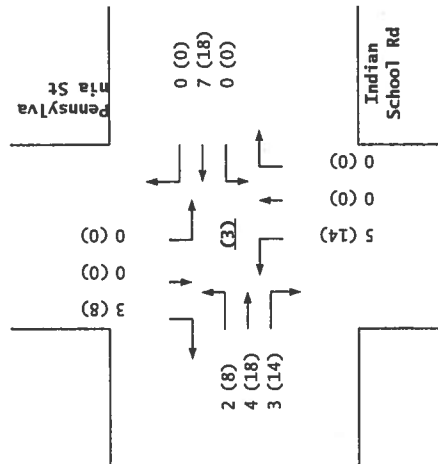
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	137	476	134	74	319	39	89	313	99	49	223	81
Background Traffic Growth	0	1	0	6	27	3	0	0	0	4	16	6
Subtotal	137	477	134	80	346	42	89	313	99	53	239	87
Winrock Theater	0	0	0	18	0	0	0	5	11	0	8	0
Subtotal (NO BUILD - P.M.)	137	477	134	98	346	42	89	318	110	53	247	87
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	4.43%	0.00%	3.40%	0.00%	0.00%	0.00%	0.00%	1.93%
Percent Commercial Trips Generated(Exiting)	1.93%	4.43%	3.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	8	18	14	0	18	0	14	0	0	0	0	8
Total PM Peak Hour BUILD Volumes	145	495	148	98	364	42	103	318	110	53	247	95

	Entering	Exiting		
Number of Commercial Trips Generated	148	94	A.M.	100% Commercial Development
	405	399	P.M.	

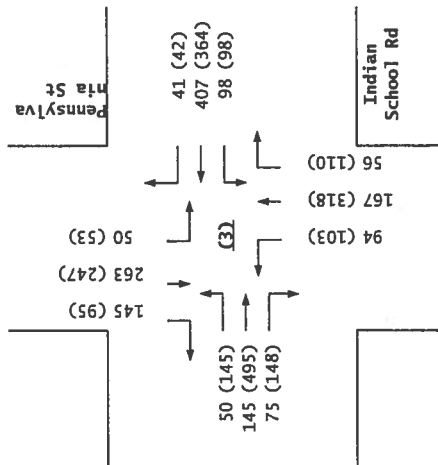
2012
NO BUILD



Trips



2012
BUILD



Indian School Rd / Pennsylvania St

Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Espanola St

INTERSECTION: E-W Street: Indian School Rd (4)
 N-S Street: Espanola St

Year of Existing Counts: 2011
 Implementation Year: 2012

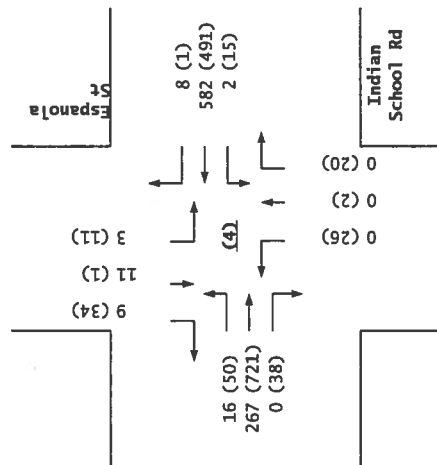
Growth Rates

	0.00%			0.14%			0.00%			0.00%		
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Espanola St)			Southbound (Espanola St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	16	267	0	2	581	8	0	0	0	3	11	9
Background Traffic Growth	0	0	0	0	1	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	16	267	0	2	582	8	0	0	0	3	11	9
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	9.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.66%
Percent Commercial Trips Generated(Exiting)	0.66%	9.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	1	9	0	0	14	0	0	0	0	0	0	1
Total AM Peak Hour BUILD Volumes	17	276	0	2	596	8	0	0	0	3	11	10

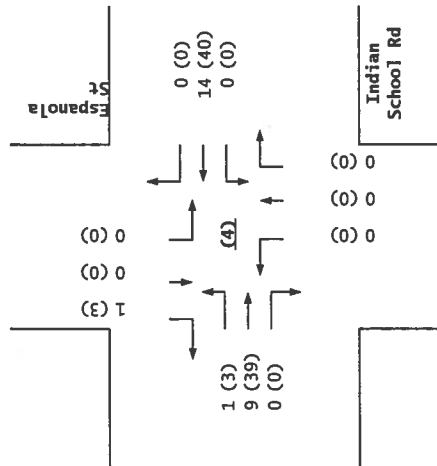
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Espanola St)			Southbound (Espanola St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	50	721	22	15	490	1	16	2	20	11	1	34
Background Traffic Growth	0	0	0	0	1	0	0	0	0	0	0	0
Subtotal	50	721	22	15	491	1	16	2	20	11	1	34
Winrock Theater	0	0	16	0	0	0	10	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	50	721	38	15	491	1	26	2	20	11	1	34
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	9.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.66%
Percent Commercial Trips Generated(Exiting)	0.66%	9.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	3	39	0	0	40	0	0	0	0	0	0	3
Total PM Peak Hour BUILD Volumes	53	760	38	15	531	1	26	2	20	11	1	37

	Entering	Exiting		
Number of Commercial Trips Generated	148	94	A.M.	100% Commercial Development
	405	399	P.M.	

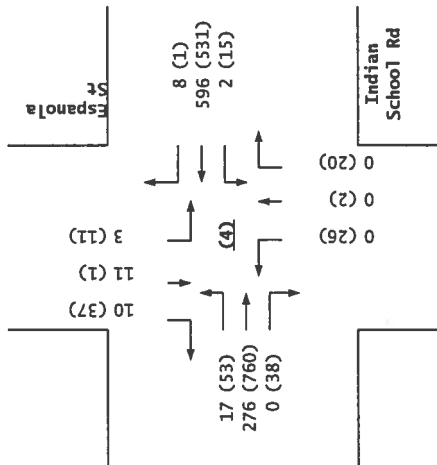
2012
NO BUILD



Trips



2012
BUILD



Indian School Rd / Espanola St

Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Q St

INTERSECTION: E-W Street: Indian School Rd (5)
N-S Street: Q St

Year of Existing Counts 2011
Implementation Year 2012

Growth Rates

	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	61	282	0	0	523	10	0	0	0	2	0	31
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	61	282	0	0	523	10	0	0	0	2	0	31
Winrock Theater	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	61	282	0	0	523	10	0	0	0	2	0	31
Percent Commercial Trips Generated(Entering)	0.00%	0.13%	12.76%	8.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.17%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.30%	0.17%	11.48%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	19	12	0	0	3	0	11	0	0	0
Total AM Peak Hour BUILD Volumes	61	282	19	12	523	10	3	0	11	2	0	31

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	72	703	0	0	749	86	0	0	0	19	0	105
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	72	703	0	0	749	86	0	0	0	19	0	105
Winrock Theater	0	16	0	0	10	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	72	719	0	0	759	86	0	0	0	19	0	105
Percent Commercial Trips Generated(Entering)	0.00%	0.13%	12.76%	8.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.17%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.30%	0.17%	11.48%	0.00%	0.00%	0.00%
Total Trips Generated	0	1	52	34	0	0	13	1	46	0	1	0
Subtotal PM Pk Hr. BUILD Volumes	72	720	52	34	759	86	13	1	46	19	1	105
Pass-by Trip Adjustments	0	-16	48	16	-16	0	81	0	16	0	0	0
Total PM Peak Hour BUILD Volumes	72	704	100	50	743	86	94	1	62	19	1	105

Number of Commercial Trips Generated

Entering	148	94	A.M.	100% Commercial Development
Exiting	405	399	P.M.	

Pass-by Trip Calculations:

AM Pass-by Trips

Percent Entering

Volume Entering

Percent Exiting

Volume Exiting

Net AM Passby Trips

PM Pass-by Trips

Percent Entering

Volume Entering

Percent Exiting

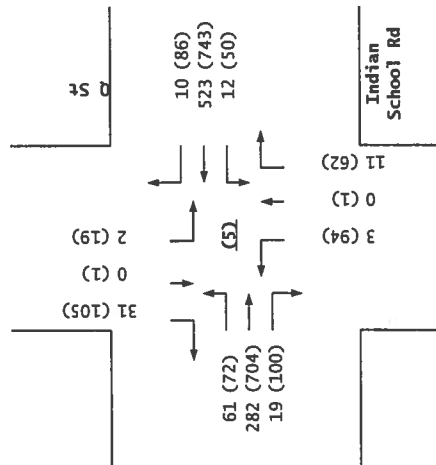
Volume Exiting

Net PM Passby Trips

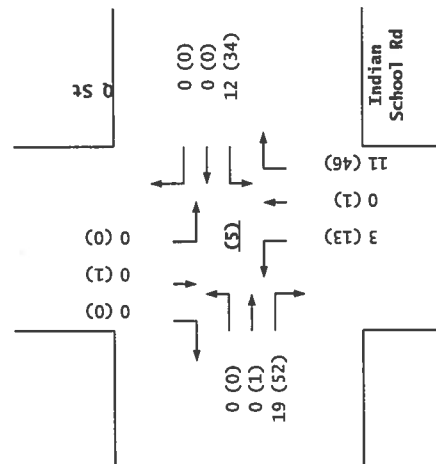
Pass-by Trips

	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)		
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Entering	0	0	0	0	0	0	0	0	0	0	0	0
Volume Entering	0	0	0	0	0	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Net AM Passby Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q St)			Southbound (Q St)		
	0.00%	-16.00%	49.00%	17.00%	-17.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Entering	0	-16	48	16	-16	0	0	0	0	0	0	0
Volume Entering	0	-16	48	16	-16	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	84.00%	0.00%	16.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	81	0	16	0	0	0
Net PM Passby Trips	0	-16	48	16	-16	0	81	0	16	0	0	0
Entering	0	0	0	0	0	0	0	0	0	0	0	0
Exiting	97	97	97	97	97	97	97	97	97	97	97	97
Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0

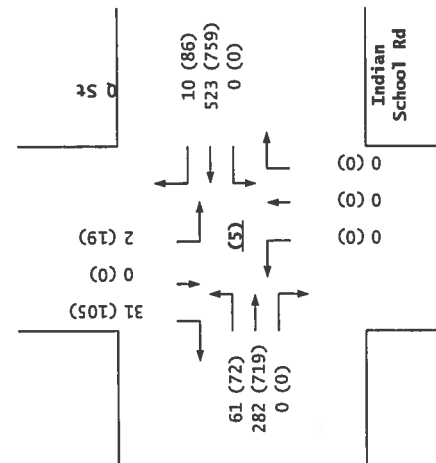
2012
BUILD



Trips



2012
NO BUILD



Target Commercial Center
Projected Turning Movements Worksheet
Am Pkwy / Uptown Lp / Louisiana Blvd

INTERSECTION: E-W Street: Am Pkwy / Uptown Lp (6)
 N-S Street: Louisiana Blvd

Year of Existing Counts 2011
 Implementation Year 2012

Growth Rates

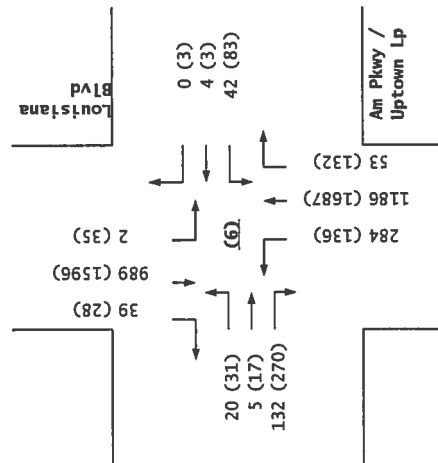
	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Am Pkwy / Uptown Lp)			Westbound (Am Pkwy / Uptown Lp)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	20	5	132	42	4	0	284	1,186	53	2	989	39
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	20	5	132	42	4	0	284	1,186	53	2	989	39
Percent Commercial Trips Generated(Entering)	2.65%	2.05%	0.00%	0.00%	0.00%	0.00%	0.00%	62.26%	8.71%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	48.97%	4.70%	0.13%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%
Total Trips Generated	4	3	0	46	4	0	0	92	13	0	2	0
Total AM Peak Hour BUILD Volumes	24	8	132	88	8	0	284	1,278	66	2	991	39

	Eastbound (Am Pkwy / Uptown Lp)			Westbound (Am Pkwy / Uptown Lp)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	16	270	83	3	3	135	1,677	132	19	1,596	28
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	31	16	270	83	3	3	135	1,677	132	19	1,596	28
Winrock Theater	0	1	0	0	0	0	1	10	0	16	0	0
Subtotal (NO BUILD - P.M.)	31	17	270	83	3	3	136	1,687	132	35	1,596	28
Percent Commercial Trips Generated(Entering)	2.65%	2.05%	0.00%	0.00%	0.00%	0.00%	0.00%	62.26%	8.71%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	48.97%	4.70%	0.13%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%
Total Trips Generated	11	8	0	195	19	1	0	252	35	0	8	0
Total PM Peak Hour BUILD Volumes	42	25	270	278	22	4	136	1,939	167	35	1,604	28

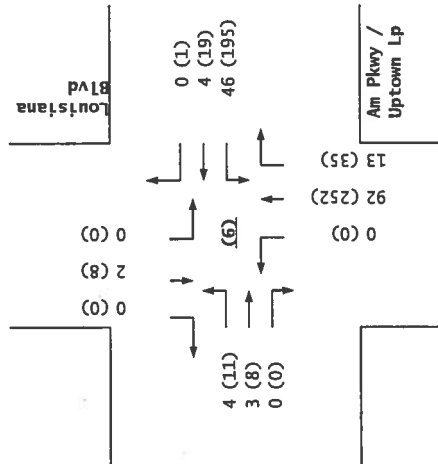
Number of Commercial Trips Generated

Entering	148	94	A.M.	100% Commercial Development
Exiting	405	399	P.M.	

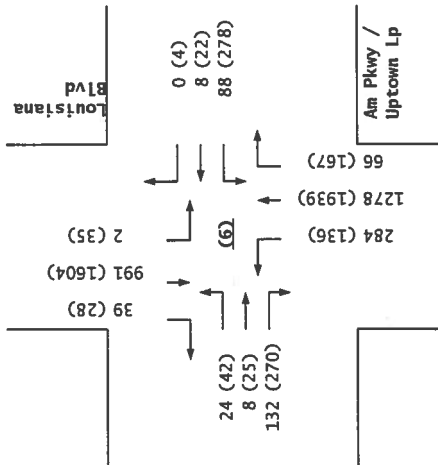
2012
NO BUILD



Trips



2012
BUILD



Am Pkwy / Uptown Lp / Louisiana Blvd

Target Commercial Center
Projected Turning Movements Worksheet
Driveway 'A' / Louisiana Blvd

INTERSECTION: E-W Street: Driveway 'A' (7)

N-S Street: Louisiana Blvd

Year of Existing Counts 2012

Implementation Year 2012

Growth Rates

	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,206	0	0	1,030	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	1,206	0	0	1,030	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	64.91%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	11	0	0	96	0	0	0
Total AM Peak Hour BUILD Volumes	0	0	0	0	0	11	0	1,206	96	0	1,030	0

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,711	0	0	1,643	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	1,711	0	0	1,643	0
Winrock Theater	0	0	0	0	0	0	0	10	0	0	16	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	0	0	0	1,721	0	0	1,659	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	64.91%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	11.46%	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	46	0	1	263	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	0	0	0	0	46	0	1,722	263	0	1,659	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	-33	33	0	0	0
Total PM Peak Hour BUILD Volumes	0	0	0	0	0	46	0	1,689	296	0	1,659	0

Number of Commercial Trips Generated

Entering	148	94	A.M.	100% Commercial Development
Exiting	405	399	P.M.	

Pass-by Trip Calculations:

AM Pass-by Trips
Percent Entering
Volume Entering
Percent Exiting
Volume Exiting
Net AM Passby Trips

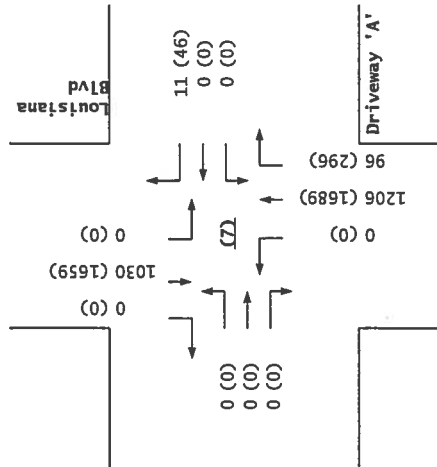
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Entering	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Entering	0	0	0	0	0	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Net AM Passby Trips	0	0	0	0	0	0	0	0	0	0	0	0

PM Pass-by Trips
Percent Entering
Volume Entering
Percent Exiting
Volume Exiting
Net PM Passby Trips

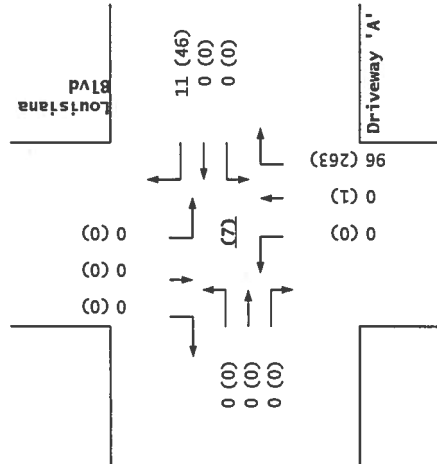
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Entering	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-34.00%	34.00%	0.00%	0.00%	0.00%
Volume Entering	0	0	0	0	0	0	0	-33	33	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Net PM Passby Trips	0	0	0	0	0	0	0	-33	33	0	0	0

Entering Exiting
0 0 AM
97 97 PM

2012
BUILD

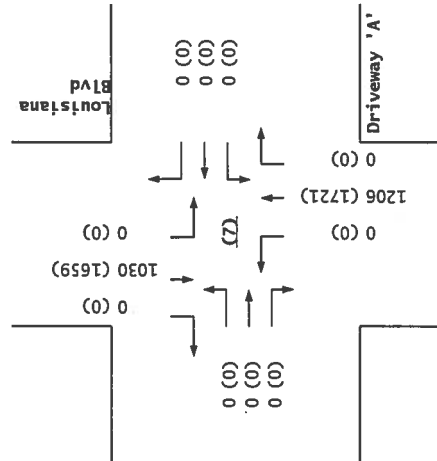


Trips



Driveway 'A' / Louisiana Blvd

2012
NO BUILD



Target Commercial Center
Projected Turning Movements Worksheet
Uptown Loop / Driveway 'B'

INTERSECTION: E-W Street: Uptown Loop (8)
 N-S Street: Driveway 'B'

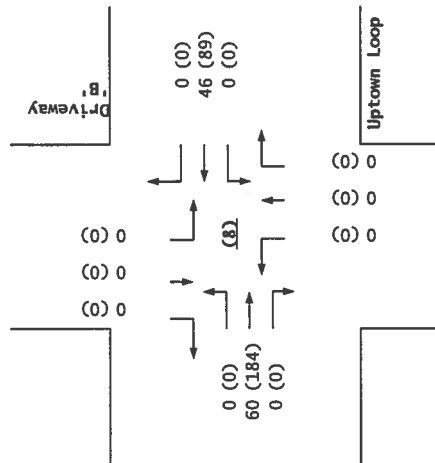
Year of Existing Counts 2012
 Implementation Year 2012

	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	60	0	0	46	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	60	0	0	46	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	10.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	7.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.60%
Total Trips Generated	0	16	0	0	7	0	0	0	0	0	0	44
Total AM Peak Hour BUILD Volumes	0	76	0	0	53	0	0	0	0	0	0	44

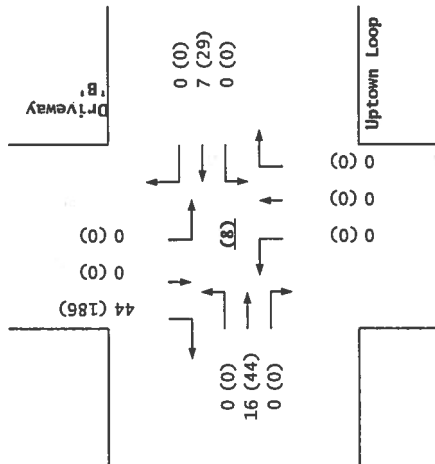
	Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	167	0	0	89	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	167	0	0	89	0	0	0	0	0	0	0
Winrock Theater	0	17	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	184	0	0	89	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	10.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	7.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.60%
Total Trips Generated	0	44	0	0	29	0	0	0	0	0	0	186
Total PM Peak Hour BUILD Volumes	0	228	0	0	118	0	0	0	0	0	0	186

Number of Commercial Trips Generated	Entering	Exiting	A.M.	100% Commercial Development
	148	94		
	405	399	P.M.	

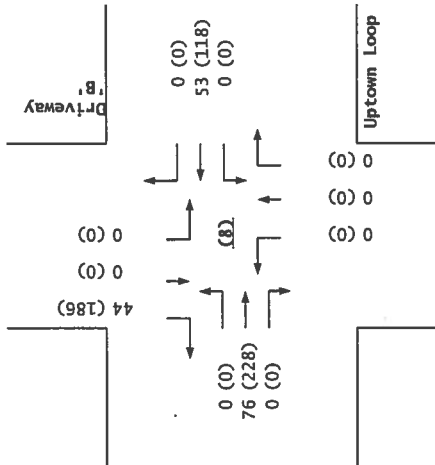
2012
NO BUILD



Trips



2012
BUILD



Uptown Loop / Driveway 'B'

Target Commercial Center
Projected Turning Movements Worksheet
Driveway 'C' / Uptown Loop

INTERSECTION: E-W Street: Driveway 'C' (9)
 N-S Street: Uptown Loop
 Year of Existing Counts: 2012
 Implementation Year: 2012
 Growth Rates:

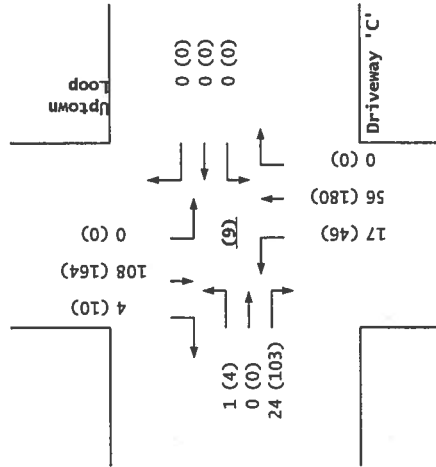
	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Driveway 'C')			Westbound (Driveway 'C')			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	56	0	0	106	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	0	0	56	0	0	106	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.45%	0.00%	0.00%	0.00%	0.00%	2.40%
Percent Commercial Trips Generated(Exiting)	1.05%	0.00%	25.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%
Total Trips Generated	1	0	24	0	0	0	17	0	0	0	2	4
Total AM Peak Hour BUILD Volumes	1	0	24	0	0	0	17	56	0	0	108	4

	Eastbound (Driveway 'C')			Westbound (Driveway 'C')			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	180	0	0	156	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	180	0	0	156	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.45%	0.00%	0.00%	0.00%	0.00%	2.40%
Percent Commercial Trips Generated(Exiting)	1.05%	0.00%	25.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%
Total Trips Generated	4	0	103	0	0	0	46	0	0	0	8	10
Total PM Peak Hour BUILD Volumes	4	0	103	0	0	0	46	180	0	0	164	10

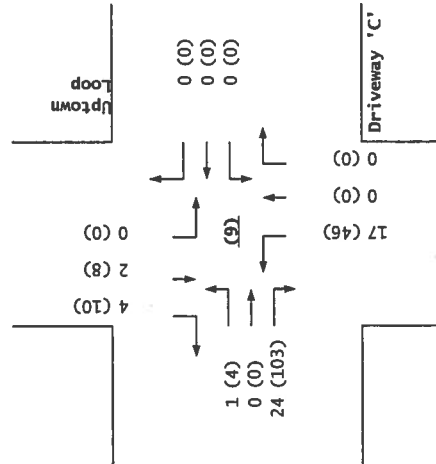
Number of Commercial Trips Generated

Entering	Exiting		
148	94	A.M.	100% Commercial Development
405	399	P.M.	

2012
BUILD

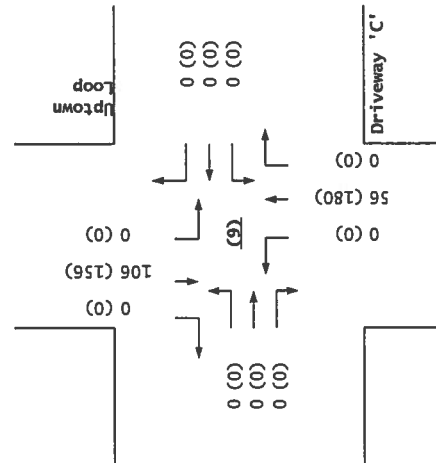


Trips



Driveway 'C' / Uptown Loop

2012
NO BUILD



Target Commercial Center
Projected Turning Movements Worksheet
Indian School Rd / Driveway 'D'

INTERSECTION: E-W Street: Indian School Rd (10)
 N-S Street: Driveway 'D'

Year of Existing Counts 2011
 Implementation Year 2012

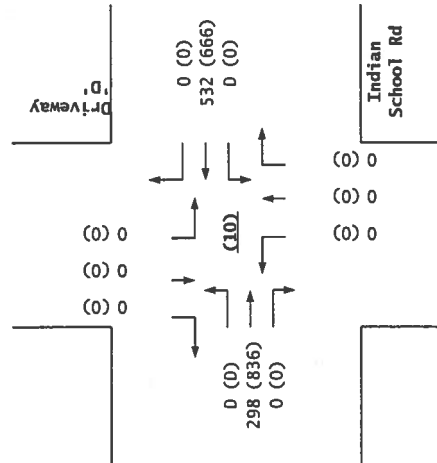
Growth Rates

	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Driveway 'D')			Southbound (Driveway 'D')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	298	0	0	532	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	298	0	0	532	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	11.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%	0.00%	0.00%	0.00%
Total Trips Generated	0	11	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	309	0	0	532	0	0	0	0	0	0	0

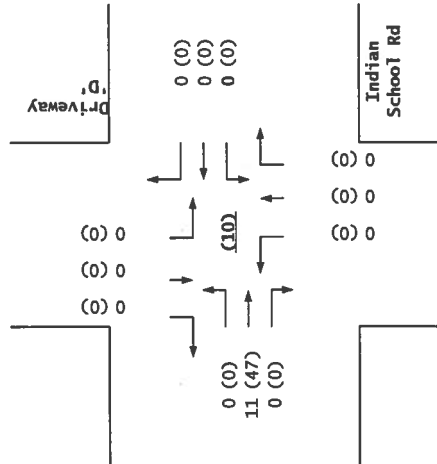
	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Driveway 'D')			Southbound (Driveway 'D')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	820	0	0	656	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	820	0	0	656	0	0	0	0	0	0	0
Winrock Theater	0	16	0	0	10	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	836	0	0	666	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	11.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%	0.00%	0.00%	0.00%
Total Trips Generated	0	47	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	0	883	0	0	666	0	0	0	0	0	0	0

	Entering	Exiting	
Number of Commercial Trips Generated	148	94	A.M. 100% Commercial Development
	405	399	P.M.

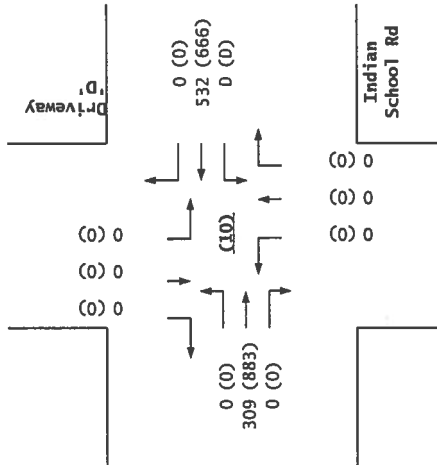
2012
NO BUILD



Trips



2012
BUILD



Indian School Rd / Driveway 'D'

Target Commercial Center
Projected Turning Movements Worksheet
Uptown Loop / Romano's drive

INTERSECTION: E-W Street: **Uptown Loop** (11)

N-S Street: **Romano's drive**

Year of Existing Counts **2011**

Implementation Year **2012**

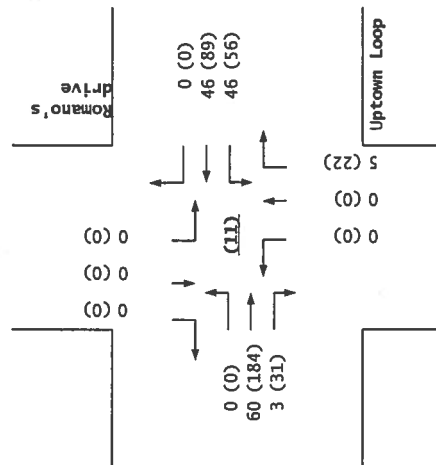
Growth Rates

	0.00%			0.00%			0.00%			0.00%		
	Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Romano's drive)			Southbound (Romano's drive)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	60	3	46	46	0	0	0	5	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	60	3	46	46	0	0	0	5	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	10.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	20.69%	7.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	16	0	19	7	0	0	0	1	0	0	0
Total AM Peak Hour BUILD Volumes	0	76	3	65	53	0	0	0	6	0	0	0

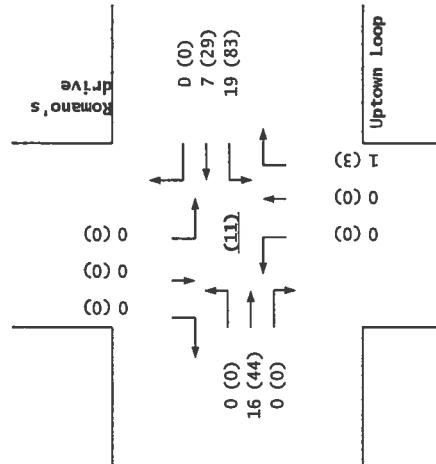
	Eastbound (Uptown Loop)			Westbound (Uptown Loop)			Northbound (Romano's drive)			Southbound (Romano's drive)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	167	31	56	89	0	0	0	22	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	167	31	56	89	0	0	0	22	0	0	0
Winrock Theater	0	17	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	184	31	56	89	0	0	0	22	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	10.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	20.69%	7.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	44	0	83	29	0	0	0	3	0	0	0
Total PM Peak Hour BUILD Volumes	0	228	31	139	118	0	0	0	25	0	0	0

Number of Commercial Trips Generated	Entering	Exiting	A.M.	100% Commercial Development
	148	94		
	405	399	P.M.	

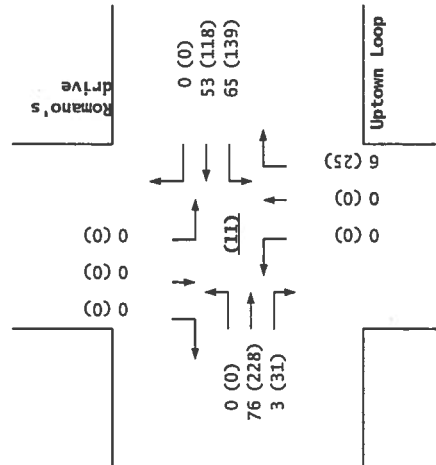
2012
NO BUILD



Trips



2012
BUILD



Uptown Loop / Romano's drive

Timings 1: Indian School Rd & Louisiana Blvd Terry O. Brown, PE 4/16/2011

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	20	99	181	301	204	839	162	54	813	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	0.97	0.95	1.00	0.98	1.00	0.95	1.00	0.95
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3313	3400	3426	3400	6346	1568	3400	6346	1568
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3313	3400	3426	3400	6346	1568	3400	6346	1568
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	26	129	74	191	317	56	249	1023	198	83
RTOR Reduction (vph)	0	65	0	0	16	0	0	75	0	0
Lane Group Flow (vph)	26	138	0	191	357	0	249	1023	123	63
Turn Type	Prot	7	4	3	8	5	2	3	1	6
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases	7	4	3	8	5	2	3	1	6	7
Actuated Green, G (s)	5.4	11.8	10.9	17.3	12.6	51.2	62.1	6.1	44.7	50.1
Effective Green, g (s)	5.4	11.8	10.9	17.3	12.6	51.2	62.1	6.1	44.7	50.1
Actuated g/C Ratio	0.05	0.12	0.11	0.17	0.13	0.51	0.62	0.06	0.45	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	95	391	371	593	428	3249	1052	207	2637	864
vis Ratio Prot	0.01	0.04	0.06	0.10	0.07	0.16	0.01	0.02	0.15	0.02
vis Ratio Perm	0.27	0.35	0.51	0.60	0.58	0.31	0.12	0.30	0.33	0.05
Uniform Delay, d1	45.4	40.6	42.1	38.2	41.2	14.2	7.7	44.9	18.0	12.8
Progression Factor	1.00	1.00	0.69	0.65	1.06	0.40	1.41	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.5	1.2	1.7	1.9	0.2	0.0	0.8	0.3	0.0
Delay (s)	47.0	41.1	43.3	40.0	43.1	14.4	7.7	45.7	18.3	12.8
Level of Service	D	D	C	C	D	A	B	D	B	B
Approach Delay (s)	47.0	41.1	43.3	40.0	43.1	14.4	7.7	45.7	18.3	12.8
Approach LOS	D	D	C	C	D	A	B	D	B	B



2012 AM Peak NOBUILD Conditions

Existing Geometry

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HCM Signalized Intersection Capacity Analysis 1: Indian School Rd & Louisiana Blvd Terry O. Brown, PE 4/16/2011

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	20	99	181	301	204	839	162	54	813	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	0.97	0.95	1.00	0.98	1.00	0.95	1.00	0.95
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3313	3400	3426	3400	6346	1568	3400	6346	1568
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	3313	3400	3426	3400	6346	1568	3400	6346	1568
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	26	129	74	191	317	56	249	1023	198	83
RTOR Reduction (vph)	0	65	0	0	16	0	0	75	0	0
Lane Group Flow (vph)	26	138	0	191	357	0	249	1023	123	63
Turn Type	Prot	7	4	3	8	5	2	3	1	6
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases	7	4	3	8	5	2	3	1	6	7
Actuated Green, G (s)	5.4	11.8	10.9	17.3	12.6	51.2	62.1	6.1	44.7	50.1
Effective Green, g (s)	5.4	11.8	10.9	17.3	12.6	51.2	62.1	6.1	44.7	50.1
Actuated g/C Ratio	0.05	0.12	0.11	0.17	0.13	0.51	0.62	0.06	0.45	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	95	391	371	593	428	3249	1052	207	2637	864
vis Ratio Prot	0.01	0.04	0.06	0.10	0.07	0.16	0.01	0.02	0.15	0.02
vis Ratio Perm	0.27	0.35	0.51	0.60	0.58	0.31	0.12	0.30	0.33	0.05
Uniform Delay, d1	45.4	40.6	42.1	38.2	41.2	14.2	7.7	44.9	18.0	12.8
Progression Factor	1.00	1.00	0.69	0.65	1.06	0.40	1.41	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.5	1.2	1.7	1.9	0.2	0.0	0.8	0.3	0.0
Delay (s)	47.0	41.1	43.3	40.0	43.1	14.4	7.7	45.7	18.3	12.8
Level of Service	D	D	C	C	D	A	B	D	B	B
Approach Delay (s)	47.0	41.1	43.3	40.0	43.1	14.4	7.7	45.7	18.3	12.8
Approach LOS	D	D	C	C	D	A	B	D	B	B

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

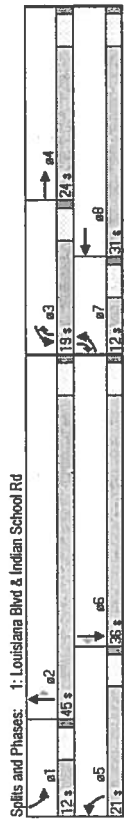
2012 AM Peak NOBUILD Conditions

Existing Geometry

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Timings 1: Louisiana Blvd & Indian School Rd Terry O. Brown, PE 1/7/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	20	107	183	302	209	845	182	85	813
Volume (vph)	20	107	183	302	209	845	182	85	813
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm-ov
Protected Phases	7	4	3	8	6	2	3	1	6
Permitted Phases	7	4	3	8	6	2	3	1	6
Deflector Phase	7	4	3	8	6	2	3	1	6
Switch Phase	7	4	3	8	6	2	3	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Spk (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Spk (s)	12.0	24.0	19.0	31.0	21.0	45.0	19.0	12.0	36.0
Total Split (%)	12.0%	24.0%	19.0%	31.0%	21.0%	45.0%	19.0%	12.0%	36.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	None	None	None	None	None	None	None	None	None
Recall Mode	6.5	10.8	11.0	17.4	12.7	52.7	68.7	7.6	45.5
Act Eff Green (s)	0.06	0.11	0.11	0.17	0.13	0.53	0.69	0.08	0.46
Actuated g/C Ratio	0.23	0.50	0.52	0.61	0.59	0.31	0.17	0.29	0.33
Queue Delay	49.1	30.8	31.6	30.7	49.0	6.4	19.1	19.0	3.3
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	49.1	30.8	31.6	30.7	49.0	6.4	19.1	19.0	3.3
LOS	D	C	C	C	D	A	A	D	B
Approach Delay	32.8	31.1	31.1	31.1	31.1	13.1	19.7	19.7	19.7
Approach LOS	C	C	C	C	C	B	B	B	B



2012 AM Peak BUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis 1: Louisiana Blvd & Indian School Rd Terry O. Brown, PE 1/7/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	20	107	183	302	209	845	182	85	813
Volume (vph)	20	107	183	302	209	845	182	85	813
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	0.97	0.95	0.97	0.86	1.00	0.97	0.86
Flt Protected	0.95	1.00	1.00	0.98	1.00	1.00	0.85	1.00	0.85
Satd. Flow (prot)	1752	3322	3400	3425	3400	3400	3400	3400	3400
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (perm)	1752	3322	3400	3425	3400	3400	3400	3400	3400
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Adj. Flow (vph)	26	139	74	193	318	57	255	1030	196
RTOR Reduction (vph)	0	65	0	0	0	0	0	0	0
Lane Group Flow (vph)	26	148	0	193	358	0	255	1030	122
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm-ov
Protected Phases	7	4	3	8	6	2	3	1	6
Permitted Phases	7	4	3	8	6	2	3	1	6
Actuated Green, G (s)	5.4	11.8	11.0	17.4	12.7	50.7	61.7	6.5	44.5
Effective Green, g (s)	5.4	11.8	11.0	17.4	12.7	50.7	61.7	6.5	44.5
Actuated g/C Ratio	0.05	0.12	0.11	0.17	0.13	0.51	0.62	0.06	0.44
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	95	392	374	595	432	3217	1046	221	2824
v/s Ratio Prot	0.01	0.04	0.06	0.10	0.08	0.16	0.01	0.02	0.15
v/s Ratio Perm	0.27	0.38	0.52	0.60	0.59	0.32	0.12	0.34	0.33
Uniform Delay, d1	45.4	40.7	42.0	38.1	41.2	14.5	7.9	44.7	18.1
Progression Factor	1.00	1.00	0.84	0.73	1.07	0.42	1.36	1.00	1.00
Incremental Delay, d2	1.6	0.6	1.2	1.7	2.0	0.2	0.0	0.9	0.3
Delay (s)	47.0	41.3	43.2	39.8	43.2	14.7	7.9	45.6	18.4
Level of Service	D	D	C	C	D	A	B	D	B
Approach Delay (s)	41.9	41.9	41.9	41.9	41.9	13.7	19.9	19.9	19.9
Approach LOS	D	D	C	C	D	A	B	D	B

Intersection Summary	
HCM Average Control Delay	20.3
HCM Level of Service	C
HCM Volume to Capacity ratio	0.44
Actuated Cycle Length (s)	100.0
Intersection Capacity Utilization	48.6%
Analysis Period (min)	15
g Critical Lane Group	

2012 AM Peak BUILD Conditions

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Existing Geometry

Queues

1: Indian School Rd & Louisiana Blvd

Terry O. Brown, PE

4/16/2011



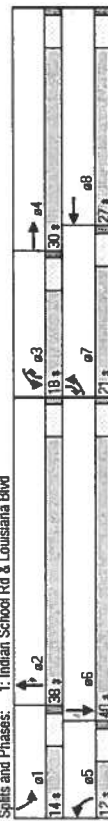
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	26	213	211	375	255	1030	198	76	945	86
v/c Ratio	0.23	0.52	0.54	0.61	0.59	0.31	0.17	0.29	0.33	0.09
Control Delay	49.1	31.6	39.1	25.9	49.0	6.5	1.9	46.1	19.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	31.6	39.1	25.9	49.0	6.5	1.9	46.1	19.1	3.3
Queue Length 50th (ft)	16	44	43	114	48	118	36	24	110	0
Queue Length 95th (ft)	37	63	74	109	104	31	0	43	151	22
Internal Link Dist (ft)		635		316		263			592	
Turn Bay Length (ft)	80		140		140		120	120		220
Base Capacity (vph)	123	659	510	905	545	3342	1193	269	2881	937
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.32	0.41	0.41	0.47	0.31	0.17	0.28	0.33	0.09

Intersection Summary

Timings
1: Indian School Rd & Louisiana Blvd
Terry O. Brown, PE
4/18/2011

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	114	389	323	245	101	1447	306	229	1268
Volume (vph)	114	389	323	245	101	1447	306	229	1268
Turn Type	Prot	Prot	Prot	Prot	pm-ov	Prot	pm-ov	Prot	pm-ov
Protected Phases	7	4	3	8	5	2	3	1	8
Permitted Phases	7	4	3	8	5	2	3	1	8
Deflector Phase	7	4	3	8	5	2	3	1	8
Switch Phase	7	4	3	8	5	2	3	1	8
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	21.0	30.0	18.0	27.0	12.0	38.0	18.0	14.0	40.0
Total Split (%)	21.0%	30.0%	18.0%	27.0%	12.0%	38.0%	18.0%	14.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	None	None	None	None	None	None	None	None	None
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	13.2	24.3	12.9	24.0	6.9	33.7	46.6	9.1	35.9
Act Effect Red (s)	0.13	0.24	0.13	0.24	0.07	0.34	0.47	0.09	0.36
Act Effect g/C Ratio	0.65	0.90	0.84	0.54	0.49	0.77	0.41	0.78	0.58
Control Delay	54.1	46.1	54.8	24.5	70.4	16.2	23.3	63.1	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	46.1	54.8	24.5	70.4	16.2	23.3	63.1	27.4
LOS	D	D	D	D	C	E	B	A	E
Approach Delay	47.4	47.4	37.4	37.4	16.9	16.9	31.2	31.2	31.2
Approach LOS	D	D	D	D	B	B	C	C	C
Intersection Summary									
Cycle Length: 100									
Actuated Cycle Length: 100									
Offset: 75 (75%), Referenced to phase 2-NBT and 6-SBT, Start of Green									
Natural Cycle: 75									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.90									
Intersection Signal Delay: 29.5									
Intersection Capacity Utilization: 70.8%									
Analysis Period (min): 15									

Splits and Phases: 1: Indian School Rd & Louisiana Blvd



2012 PM Peak NOBUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
1: Indian School Rd & Louisiana Blvd
Terry O. Brown, PE
4/18/2011

Movement	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	114	389	323	245	101	1447	306	229	1268
Volume (vph)	114	389	323	245	101	1447	306	229	1268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	0.97	0.95	0.97	0.96	1.00	0.97	0.86
FL Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.85
Satd. Flow (prot)	1752	3321	3400	3274	3400	6346	1568	3400	6346
FL Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.85
Satd. Flow (perm)	1752	3321	3400	3274	3400	6346	1568	3400	6346
Peak-hour factor, PHF	0.76	0.76	0.76	0.88	0.88	0.88	0.88	0.95	0.95
Adj. Flow (vph)	150	512	275	217	115	1644	241	1333	95
RTOR Reduction (vph)	0	72	0	138	0	0	33	0	48
Lane Group Flow (vph)	150	715	0	367	357	0	115	1644	315
Turn Type	Prot	Prot	Prot	3	8	2	3	1	6
Protected Phases	7	4	3	8	5	2	3	1	6
Permitted Phases	7	4	3	8	5	2	3	1	6
Actuated Green, G (s)	13.2	24.3	12.9	24.0	6.9	33.7	46.6	9.1	35.9
Effective Green, g (s)	13.2	24.3	12.9	24.0	6.9	33.7	46.6	9.1	35.9
Actuated g/C Ratio	0.13	0.24	0.13	0.24	0.07	0.34	0.47	0.09	0.36
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	231	807	439	786	235	2139	809	2278	848
v/c Ratio Prot	0.09	e0.22	e0.11	0.11	0.03	e0.26	0.05	e0.07	0.21
v/c Ratio Perm	0.65	0.89	0.84	0.45	0.49	0.77	0.39	0.78	0.59
Uniform Delay, d1	41.2	36.5	42.5	32.4	44.9	29.7	17.4	44.5	26.0
Progression Factor	1.00	1.00	0.98	1.06	1.43	0.47	0.98	1.00	1.00
Incremental Delay, d2	6.2	11.5	12.8	0.4	1.3	2.3	0.3	11.8	1.1
Delay (s)	47.4	48.0	49.5	34.8	65.3	16.1	18.8	58.2	27.1
Level of Service	D	D	D	C	E	B	A	E	C
Approach Delay (s)	47.4	47.4	41.1	41.1	16.4	16.4	30.5	30.5	30.5
Approach LOS	D	D	D	D	B	B	C	C	C
Intersection Summary									
HCM Average Control Delay	29.7								
HCM Volume to Capacity ratio	0.77								
Actuated Cycle Length (s)	100.0								
Intersection Capacity Utilization	70.8%								
Analysis Period (min)	15								
Critical Lane Group									

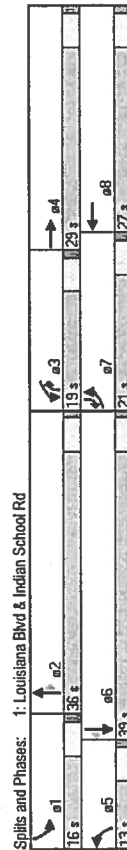
2012 PM Peak NOBUILD Conditions
Existing Geometry
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Timings

1: Louisiana Blvd & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SSR
Lane Configurations	114	411	363	247	121	1473	306	291	1234	90
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	0.97	0.95	0.97	0.86	1.00	0.97	0.86	1.00
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (gph)	1752	3328	3400	3253	3400	6346	1568	3400	6346	1568
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (gphm)	1762	3328	3400	3253	3400	6346	1568	3400	6346	1568
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	150	541	275	412	281	258	138	1674	348	1299
RTOR Reduction (vph)	0	65	0	0	160	0	25	0	0	50
Lane Group Flow (vph)	150	751	0	412	379	0	138	1674	323	1299
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm-ov	Prot	NA	pm-ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases	13.2	24.1	13.9	24.8	7.8	31.0	44.9	11.0	34.2	47.4
Actuated Green, G (s)	13.2	24.1	13.9	24.8	7.8	31.0	44.9	11.0	34.2	47.4
Effective Green, g (s)	0.13	0.24	0.14	0.25	0.08	0.31	0.45	0.11	0.34	0.47
Actuated g/C Ratio	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	231	802	473	807	265	1967	782	374	2170	822
Lane Gr Cap (vph)	0.09	60.23	60.12	0.12	0.04	60.26	0.06	60.09	60.20	0.01
v/s Ratio Prot	0.65	0.94	0.87	0.47	0.52	0.85	0.41	0.82	0.60	0.05
v/s Ratio Perm	41.2	37.2	42.2	32.0	44.3	32.3	18.6	43.5	27.2	14.2
Uniform Delay, d1	1.00	1.00	0.88	1.07	1.43	0.54	0.10	1.00	1.00	1.00
Progression Factor	6.2	18.1	15.8	0.4	1.4	3.8	0.3	13.0	1.2	0.0
Incremental Delay, d2	47.4	55.3	53.1	34.8	64.7	21.2	2.2	56.5	28.4	14.2
Delay (s)	D	E	D	C	E	C	A	E	C	B
Level of Service	D	E	D	C	E	C	A	E	C	B
Approach Delay (s)	54.1	54.1	42.7	42.7	20.9	20.9	20.9	20.9	20.9	20.9
Approach LOS	D	D	D	D	C	C	C	C	C	C
Intersection Summary										
HCM Average Control Delay	33.5									
HCM Volume to Capacity ratio	0.93									
Actuated Cycle Length (s)	100.0									
Intersection Capacity Utilization	74.7%									
Analysis Period (min)	15									
g Critical Lane Group	9									



Splits and Phases: 1: Louisiana Blvd & Indian School Rd

HCM Signalized Intersection Capacity Analysis

1: Louisiana Blvd & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

Movement	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SSR
Lane Configurations	114	411	363	247	121	1473	306	291	1234	90
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	0.97	0.95	0.97	0.86	1.00	0.97	0.86	1.00
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (gph)	1752	3328	3400	3253	3400	6346	1568	3400	6346	1568
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (gphm)	1762	3328	3400	3253	3400	6346	1568	3400	6346	1568
Peak-hour factor, PHF	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Adj. Flow (vph)	150	541	275	412	281	258	138	1674	348	1299
RTOR Reduction (vph)	0	65	0	0	160	0	25	0	0	50
Lane Group Flow (vph)	150	751	0	412	379	0	138	1674	323	1299
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm-ov	Prot	NA	pm-ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases	13.2	24.1	13.9	24.8	7.8	31.0	44.9	11.0	34.2	47.4
Actuated Green, G (s)	13.2	24.1	13.9	24.8	7.8	31.0	44.9	11.0	34.2	47.4
Effective Green, g (s)	0.13	0.24	0.14	0.25	0.08	0.31	0.45	0.11	0.34	0.47
Actuated g/C Ratio	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	231	802	473	807	265	1967	782	374	2170	822
Lane Gr Cap (vph)	0.09	60.23	60.12	0.12	0.04	60.26	0.06	60.09	60.20	0.01
v/s Ratio Prot	0.65	0.94	0.87	0.47	0.52	0.85	0.41	0.82	0.60	0.05
v/s Ratio Perm	41.2	37.2	42.2	32.0	44.3	32.3	18.6	43.5	27.2	14.2
Uniform Delay, d1	1.00	1.00	0.88	1.07	1.43	0.54	0.10	1.00	1.00	1.00
Progression Factor	6.2	18.1	15.8	0.4	1.4	3.8	0.3	13.0	1.2	0.0
Incremental Delay, d2	47.4	55.3	53.1	34.8	64.7	21.2	2.2	56.5	28.4	14.2
Delay (s)	D	E	D	C	E	C	A	E	C	B
Level of Service	D	E	D	C	E	C	A	E	C	B
Approach Delay (s)	54.1	54.1	42.7	42.7	20.9	20.9	20.9	20.9	20.9	20.9
Approach LOS	D	D	D	D	C	C	C	C	C	C
Intersection Summary										
HCM Average Control Delay	33.5									
HCM Volume to Capacity ratio	0.93									
Actuated Cycle Length (s)	100.0									
Intersection Capacity Utilization	74.7%									
Analysis Period (min)	15									
g Critical Lane Group	9									

2012 PM Peak BUILD Conditions

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Existing Geometry
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Queues

Terry O. Brown, PE

1: Indian School Rd & Louisiana Blvd

4/16/2011



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	150	816	494	539	138	1674	348	306	1299	95
v/c Ratio	0.65	0.98	0.91	0.54	0.52	0.85	0.42	0.90	0.62	0.11
Control Delay	54.1	63.1	59.2	22.4	70.0	21.6	2.5	74.6	29.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	63.1	59.2	22.4	70.0	21.6	2.5	74.6	29.6	2.7
Queue Length 50th (ft)	91	249	158	106	48	115	8	101	201	0
Queue Length 95th (ft)	126	#260	#247	152	m65	212	m16	#179	239	23
Internal Link Dist (ft)		635		316		263			592	
Turn Bay Length (ft)	80		140		140		120	120		220
Base Capacity (vph)	280	829	544	1000	272	1967	834	340	2109	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.98	0.91	0.54	0.51	0.85	0.42	0.90	0.62	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Timings
2: Indian School Rd & Uptown Loop

Terry O. Brown, PE
4/16/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	SSR
Lane Configurations	64	232	2	99	501	8	10	24	5
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Lane Util. Factor	1.00	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3443	1752	3086	1752	3505
Flt Permitted	0.39	1.00	1.00	0.46	1.00	0.75	1.00	0.63	1.00
Satd. Flow (perm)	722	3505	1568	841	3443	1390	3086	1167	3505
Peak-hour factor, PHF	0.92	0.92	0.92	0.83	0.83	0.83	0.75	0.75	0.81
Adj. Flow (vph)	70	252	2	119	604	80	11	30	6
RTOR Reduction (vph)	0	0	1	0	8	0	0	0	0
Lane Group Flow (vph)	70	252	1	119	676	0	11	30	6
Turn Type	pm-pt	pt-ov	pm-pt	pm-pt	pt-ov	pm-pt	pt-ov	pm-pt	pt-ov
Protected Phases	7	4	4.5	3	8	5	2	1	6
Permitted Phases	4			8		2		6	
Actuated Green, G (s)	28.3	21.6	32.7	71.8	60.1	12.4	6.3	14.0	7.1
Effective Green, g (s)	28.3	21.6	32.7	71.8	60.1	12.4	6.3	14.0	7.1
Actuated g/C Ratio	0.28	0.22	0.33	0.72	0.60	0.12	0.06	0.14	0.07
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	273	757	513	1016	2069	194	194	204	249
W/S Ratio Prot	0.02	0.07	0.00	0.05	0.020	0.00	0.01	0.01	0.00
W/S Ratio Perm	0.06			0.03		0.00		0.01	
Uniform Delay, d1	28.5	33.1	22.7	4.5	9.9	38.6	44.1	37.6	43.2
Progression Factor	0.74	1.12	1.47	0.45	0.46	1.01	0.90	1.00	1.00
Incremental Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0
Delay (s)	21.7	37.2	33.3	2.3	5.0	38.2	39.8	38.0	43.3
Level of Service	C	D	C	A	A	D	D	D	C
Approach Delay (s)	33.9			4.6		39.7		36.3	
Approach LOS	C			A		D		D	
Intersection Summary									
HCM Average Control Delay	15.7				HCM Level of Service				8
HCM Volume to Capacity ratio	0.28								
Actuated Cycle Length (s)	100.0				Sum of lost time (s)				15.0
Intersection Capacity Utilization	40.6%				ICU Level of Service				A
Analysis Period (min)	15								
g Critical Lane Group									

Spills and Phases: 2: Indian School Rd & Uptown Loop									
← e1	↑ e2	← e3	→ e4	← e5	↑ e6	← e7	→ e8	← e9	↑ e10
12 s	23 s	23 s	42 s	23 s	23 s	23 s	23 s	23 s	23 s

2012 AM Peak NOBUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
2: Indian School Rd & Uptown Loop

Terry O. Brown, PE
4/16/2011

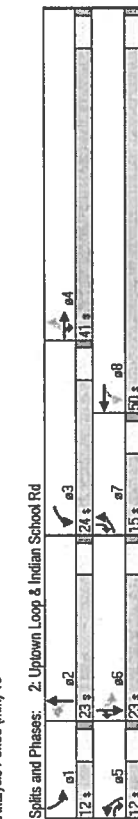
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SSBL
Lane Configurations	64	232	2	99	501	66	8	10	38	24	5	23
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.88	1.00	0.95	1.00
Lane Util. Factor	1.00	1.00	0.85	1.00	0.98	1.00	0.88	1.00	0.95	1.00	0.95	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3443	1752	3086	1752	3086	1752	3505	1568
Flt Permitted	0.39	1.00	1.00	0.46	1.00	0.75	1.00	0.75	1.00	0.63	1.00	1.00
Satd. Flow (perm)	722	3505	1568	841	3443	1390	3086	1390	3086	1167	3505	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.83	0.83	0.83	0.75	0.75	0.75	0.81	0.81	0.81
Adj. Flow (vph)	70	252	2	119	604	80	11	13	51	30	6	28
RTOR Reduction (vph)	0	0	1	0	8	0	0	0	48	0	0	23
Lane Group Flow (vph)	70	252	1	119	676	0	11	16	0	30	6	5
Turn Type	pm-pt	pt-ov	pm-pt	pm-pt	pt-ov	pm-pt	pt-ov	pm-pt	pt-ov	pm-pt	pt-ov	pm-pt
Protected Phases	7	4	4.5	3	8	5	2	2	1	6	6.7	
Permitted Phases	4			8		2			6			
Actuated Green, G (s)	28.3	21.6	32.7	71.8	60.1	12.4	6.3	12.4	6.3	14.0	7.1	18.8
Effective Green, g (s)	28.3	21.6	32.7	71.8	60.1	12.4	6.3	12.4	6.3	14.0	7.1	18.8
Actuated g/C Ratio	0.28	0.22	0.33	0.72	0.60	0.12	0.06	0.12	0.06	0.14	0.07	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	273	757	513	1016	2069	194	194	194	194	204	249	295
W/S Ratio Prot	c0.02	0.07	0.00	0.05	c0.20	0.00	0.01	0.00	0.01	c0.01	0.00	0.00
W/S Ratio Perm	0.06			0.03		0.00				c0.01		
W/c Ratio	0.26	0.33	0.00	0.12	0.33	0.06	0.08	0.15	0.02	0.15	0.02	0.02
Uniform Delay, d1	28.5	33.1	22.7	4.5	9.9	38.6	44.1	37.6	43.2	37.6	43.2	33.1
Progression Factor	0.74	1.12	1.47	0.45	0.46	1.01	0.90	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.3	0.0	0.0
Delay (s)	21.7	37.2	33.3	2.3	5.0	39.2	39.8	38.0	43.3	38.0	43.3	33.1
Level of Service	C	D	C	A	A	D	D	D	D	D	D	C
Approach Delay (s)	33.9			4.6		39.7		36.3		36.3		
Approach LOS	C			A		D		D		D		
Intersection Summary												
HCM Average Control Delay	15.7				HCM Level of Service				8			
HCM Volume to Capacity ratio	0.28											
Actuated Cycle Length (s)	100.0				Sum of lost time (s)				15.0			
Intersection Capacity Utilization	40.6%				ICU Level of Service				A			
Analysis Period (min)	15											
Critical Lane Group												

2012 AM Peak NOBUILD Conditions
Existing Geometry
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Timings 2: Uptown Loop & Indian School Rd

Terry O. Brown, PE
1/17/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	64	241	4	102	513	66	8	10	39	24	5
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.85
Lane Util. Factor	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (prot)	1762	3505	1568	1752	3445	1752	3445	1752	3445	1752	3445
Flt Permitted	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (perm)	712	3505	1568	827	3445	1752	3445	1752	3445	1752	3445
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	262	4	123	618	80	11	13	52	30	6
RTOR Reduction (vph)	0	0	3	0	7	0	0	0	0	0	0
Lane Group Flow (vph)	70	262	1	123	691	0	11	16	0	30	6
Turn Type	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt
Protected Phases	7	4	4	5	3	8	5	2	1	6	6
Permitted Phases	4	8	8	8	8	8	8	8	8	8	8
Actuated Green, G (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Effective Green, g (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Actuated g/C Ratio	0.29	0.22	0.33	0.72	0.60	0.12	0.06	0.14	0.07	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	274	771	519	1008	2070	194	194	204	249	295	295
v/c Ratio	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
v/c Ratio Perm	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
Uniform Delay, d1	28.2	32.9	22.4	4.5	10.0	38.6	44.1	37.6	43.2	33.1	33.1
Progression Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Incremental Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Delay (s)	31.8	38.7	42.7	2.8	4.8	38.7	44.3	38.0	43.3	33.1	33.1
Level of Service	C	D	D	A	A	D	D	D	D	D	C
Approach Delay (s)	37.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Approach LOS	D	A	A	A	A	A	A	A	A	A	A



Splits and Phases: 2: Uptown Loop & Indian School Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.85
Lane Util. Factor	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (prot)	1762	3505	1568	1752	3445	1752	3445	1752	3445	1752	3445
Flt Permitted	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (perm)	712	3505	1568	827	3445	1752	3445	1752	3445	1752	3445
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	262	4	123	618	80	11	13	52	30	6
RTOR Reduction (vph)	0	0	3	0	7	0	0	0	0	0	0
Lane Group Flow (vph)	70	262	1	123	691	0	11	16	0	30	6
Turn Type	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt
Protected Phases	7	4	4	5	3	8	5	2	1	6	6
Permitted Phases	4	8	8	8	8	8	8	8	8	8	8
Actuated Green, G (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Effective Green, g (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Actuated g/C Ratio	0.29	0.22	0.33	0.72	0.60	0.12	0.06	0.14	0.07	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	274	771	519	1008	2070	194	194	204	249	295	295
v/c Ratio	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
v/c Ratio Perm	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
Uniform Delay, d1	28.2	32.9	22.4	4.5	10.0	38.6	44.1	37.6	43.2	33.1	33.1
Progression Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Incremental Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Delay (s)	31.8	38.7	42.7	2.8	4.8	38.7	44.3	38.0	43.3	33.1	33.1
Level of Service	C	D	D	A	A	D	D	D	D	D	C
Approach Delay (s)	37.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Approach LOS	D	A	A	A	A	A	A	A	A	A	A

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.85
Lane Util. Factor	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (prot)	1762	3505	1568	1752	3445	1752	3445	1752	3445	1752	3445
Flt Permitted	0.95	1.00	0.95	1.00	0.98	1.00	0.98	1.00	0.95	1.00	0.85
Satd. Flow (perm)	712	3505	1568	827	3445	1752	3445	1752	3445	1752	3445
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	262	4	123	618	80	11	13	52	30	6
RTOR Reduction (vph)	0	0	3	0	7	0	0	0	0	0	0
Lane Group Flow (vph)	70	262	1	123	691	0	11	16	0	30	6
Turn Type	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt	NA	pm-pt
Protected Phases	7	4	4	5	3	8	5	2	1	6	6
Permitted Phases	4	8	8	8	8	8	8	8	8	8	8
Actuated Green, G (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Effective Green, g (s)	28.7	22.0	33.1	71.8	60.1	12.4	6.3	14.0	7.1	18.8	18.8
Actuated g/C Ratio	0.29	0.22	0.33	0.72	0.60	0.12	0.06	0.14	0.07	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	274	771	519	1008	2070	194	194	204	249	295	295
v/c Ratio	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
v/c Ratio Perm	0.06	0.07	0.00	0.05	0.02	0.00	0.01	0.01	0.00	0.00	0.00
Uniform Delay, d1	28.2	32.9	22.4	4.5	10.0	38.6	44.1	37.6	43.2	33.1	33.1
Progression Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Incremental Delay, d2	0.5	0.3	0.0	0.2	0.4	0.1	0.2	0.3	0.0	0.0	0.0
Delay (s)	31.8	38.7	42.7	2.8	4.8	38.7	44.3	38.0	43.3	33.1	33.1
Level of Service	C	D	D	A	A	D	D	D	D	D	C
Approach Delay (s)	37.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Approach LOS	D	A	A	A	A	A	A	A	A	A	A

Intersection Signal Delay: 14.2

Intersection Capacity Utilization 40.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Intersection LOS: B

ICU Level of Service A

Intersection LOS: B

ICU Level of Service A

2012 AM Peak BUILD Conditions

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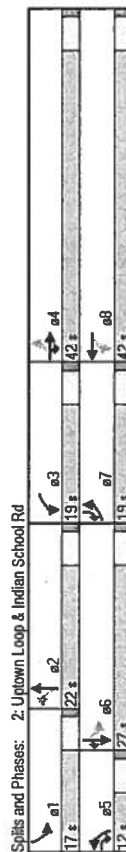
Existing Geometry

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Timings 2: Uptown Loop & Indian School Rd

Terry O. Brown, PE
11/7/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT	SBR
Lane Configurations	165	675	43	95	555	55	40	126	36
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pm-pt	NA	pt-ov	NA
Protected Phases	7	4	4	5	3	8	5	2	1
Permitted Phases	4								6
Detector Phase	7	4	4	5	3	8	5	2	1
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	19.0	42.0	19.0	42.0	19.0	42.0	19.0	42.0	19.0
Total Split (%)	19.0%	42.0%	19.0%	42.0%	19.0%	42.0%	19.0%	42.0%	19.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimizer?									
Recall Mode	Min	Min	Min	C-Min	Min	Min	Min	Min	Min
Act Effct Green (s)	37.4	27.5	40.9	64.6	49.8	15.7	7.3	24.8	12.1
Actuated g/C Ratio	0.37	0.28	0.41	0.65	0.50	0.16	0.07	0.25	0.12
v/c Ratio	0.49	0.77	0.07	0.17	0.40	0.27	0.47	0.53	0.11
Control Delay	15.4	34.8	11.7	5.0	12.6	30.5	21.1	36.2	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	34.8	11.7	5.0	12.6	30.5	21.1	36.2	38.3
LOS	B	C	B	A	B	C	C	D	A
Approach Delay									
Approach LOS									
Intersection Summary									
Cycle Length: 100									
Actuated Cycle Length: 100									
Offset: 99 (99%), Referenced to phase 3:WBL and 8:WBT, Start of Green									
Natural Cycle: 65									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.77									
Intersection Signal Delay: 22.5									
Intersection Capacity Utilization 54.0%									
Analysis Period (min) 15									



2012 PM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis 2: Uptown Loop & Indian School Rd

Terry O. Brown, PE
11/7/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations	165	675	43	95	555	55	40	126	36
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected	1.00	1.00	0.85	1.00	0.99	1.00	0.90	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3457	1752	3147	1752	3505
Satd. Flow (perm)	721	3505	1568	261	3457	1336	3147	729	3505
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.82	0.82	0.75
Adj. Flow (vph)	181	742	47	107	624	62	67	49	104
RTOR Reduction (vph)	0	0	17	0	6	0	0	0	0
Lane Group Flow (vph)	181	742	30	107	680	0	67	57	0
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pm-pt	NA	pt-ov	NA
Protected Phases	7	4	4	5	3	8	5	2	1
Permitted Phases	4								6
Actuated Green, G (s)	37.3	27.5	40.8	64.6	49.8	15.6	7.3	25.2	12.1
Effective Green, g (s)	37.3	27.5	40.8	64.6	49.8	15.6	7.3	25.2	12.1
Actuated g/C Ratio	0.37	0.28	0.41	0.65	0.50	0.16	0.07	0.25	0.12
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	370	964	640	647	1722	243	230	318	424
v/c Ratio Prot	c0.05	c0.21	0.02	0.05	c0.20	0.02	0.02	c0.07	0.01
v/c Ratio Perm	0.13	0.49	0.77	0.05	0.17	0.39	0.28	0.25	0.06
Uniform Delay, d1	21.9	33.3	17.9	9.1	15.7	37.0	43.8	31.1	27.3
Progression Factor	0.98	0.92	1.52	0.57	0.71	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	2.9	0.0	0.5	0.7	0.6	0.6	1.6	0.1
Delay (s)	22.3	33.7	27.1	5.7	11.7	37.7	44.3	32.7	27.4
Level of Service	C	C	C	A	B	D	D	C	D
Approach Delay									
Approach LOS									
Intersection Summary									
HCM Average Control Delay									
HCM Volume to Capacity ratio									
Actuated Cycle Length (s)									
Intersection Capacity Utilization									
Analysis Period (min)									
g. Critical Lane Group									

2012 PM Peak BUILD Conditions
Existing Geometry
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Timings 3: Indian School Rd & Pennsylvania St Terry O. Brown, PE 4/16/2011

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	48	141	72	98	400	89	167	56	50	263	142
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	3456	1752	1845	1568	1752	1845	1568
Flt Permitted	0.26	1.00	1.00	0.48	1.00	0.49	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	478	1845	1568	876	3456	899	1845	1568	1138	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.77	0.77	0.80	0.80	0.80	0.95	0.95	0.95
Adj. Flow (vph)	56	166	85	127	519	53	111	209	70	53	277
RTOR Reduction (vph)	0	0	57	0	9	0	0	29	0	0	57
Lane Group Flow (vph)	56	166	28	127	563	0	111	209	41	53	277
Turn Type	pm-pt	7	4	4	5	3	8	2	3	1	6
Protected Phases	7	4	4	5	3	8	2	3	1	6	6
Permitted Phases	4										
Actuated Green, G (s)	27.0	19.3	33.1	32.6	22.1	52.0	43.2	58.7	48.4	41.4	54.1
Effective Green, g (s)	27.0	19.3	33.1	32.6	22.1	52.0	43.2	58.7	48.4	41.4	54.1
Actuated g/C Ratio	0.27	0.19	0.33	0.33	0.22	0.62	0.43	0.59	0.48	0.41	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Cap Cap (vph)	227	356	519	378	764	543	797	920	594	764	848
W/S Ratio Prot	0.02	0.09	0.02	0.04	0.16	0.02	0.11	0.03	0.01	0.15	0.06
W/S Ratio Perm	0.05			0.07		0.09		0.04			
W/C Ratio	0.25	0.47	0.05	0.34	0.74	0.20	0.26	0.04	0.09	0.36	0.11
Uniform Delay, d1	27.9	35.8	22.8	24.7	36.3	12.6	18.2	8.8	13.7	20.2	11.2
Progression Factor	0.91	0.85	0.21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	1.0	0.0	0.5	3.7	0.2	0.8	0.0	0.1	1.3	0.1
Delay (s)	26.0	31.5	4.7	25.2	40.0	12.8	19.0	8.8	13.8	21.5	11.2
Level of Service	C	C	A	C	D	B	B	A	B	C	B
Approach Delay (s)	23.1			37.3		15.4				17.5	
Approach LOS	C			D		B				B	
Intersection Summary											
HCM Average Control Delay	25.4										
HCM Volume to Capacity ratio	0.46										
Actuated Cycle Length (s)	100.0										
Intersection Capacity Utilization	52.0%										
Analysis Period (min)	15										
c Critical Lane Group											

2012 AM Peak NOBUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis 3: Indian School Rd & Pennsylvania St Terry O. Brown, PE 4/16/2011

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	48	141	72	98	400	89	167	56	50	263	142
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	3456	1752	1845	1568	1752	1845	1568
Flt Permitted	0.26	1.00	1.00	0.48	1.00	0.49	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	478	1845	1568	876	3456	899	1845	1568	1138	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.77	0.77	0.80	0.80	0.80	0.95	0.95	0.95
Adj. Flow (vph)	56	166	85	127	519	53	111	209	70	53	277
RTOR Reduction (vph)	0	0	57	0	9	0	0	29	0	0	57
Lane Group Flow (vph)	56	166	28	127	563	0	111	209	41	53	277
Turn Type	pm-pt	7	4	4	5	3	8	2	3	1	6
Protected Phases	7	4	4	5	3	8	2	3	1	6	6
Permitted Phases	4										
Actuated Green, G (s)	27.0	19.3	33.1	32.6	22.1	52.0	43.2	58.7	48.4	41.4	54.1
Effective Green, g (s)	27.0	19.3	33.1	32.6	22.1	52.0	43.2	58.7	48.4	41.4	54.1
Actuated g/C Ratio	0.27	0.19	0.33	0.33	0.22	0.62	0.43	0.59	0.48	0.41	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Cap Cap (vph)	227	356	519	378	764	543	797	920	594	764	848
W/S Ratio Prot	0.02	0.09	0.02	0.04	0.16	0.02	0.11	0.03	0.01	0.15	0.06
W/S Ratio Perm	0.05			0.07		0.09		0.04			
W/C Ratio	0.25	0.47	0.05	0.34	0.74	0.20	0.26	0.04	0.09	0.36	0.11
Uniform Delay, d1	27.9	35.8	22.8	24.7	36.3	12.6	18.2	8.8	13.7	20.2	11.2
Progression Factor	0.91	0.85	0.21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	1.0	0.0	0.5	3.7	0.2	0.8	0.0	0.1	1.3	0.1
Delay (s)	26.0	31.5	4.7	25.2	40.0	12.8	19.0	8.8	13.8	21.5	11.2
Level of Service	C	C	A	C	D	B	B	A	B	C	B
Approach Delay (s)	23.1			37.3		15.4				17.5	
Approach LOS	C			D		B				B	
Intersection Summary											
HCM Average Control Delay	25.4										
HCM Volume to Capacity ratio	0.46										
Actuated Cycle Length (s)	100.0										
Intersection Capacity Utilization	52.0%										
Analysis Period (min)	15										
c Critical Lane Group											

2012 AM Peak NOBUILD Conditions
Existing Geometry
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Timings 3: Pennsylvania St & Indian School Rd

Terry O. Brown, PE
1/17/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	50	145	75	98	407	94	167	58	50	263	145
Volume (vph)	pm-pt	NA	pt-ov	pm-pt	NA	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov
Turn Type	4	4	4	5	3	8	5	2	2	3	1
Protected Phases	7	4	4	8	8	2	2	2	3	1	8
Permitted Phases	4	7	4	3	3	8	5	2	2	3	1
Detector Phase	7	4	4	5	3	8	5	2	2	3	1
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Minimum Split (s)	13.0	34.0	13.0	34.0	13.0	34.0	13.0	34.0	10.0	40.0	10.0
Total Split (%)	13.0%	34.0%	13.0%	34.0%	13.0%	34.0%	13.0%	34.0%	10.0%	40.0%	10.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	27.6	19.7	33.7	32.9	22.4	51.7	42.7	58.2	47.8	40.8	53.6
Act Elct Green (s)	0.28	0.20	0.34	0.33	0.22	0.52	0.43	0.58	0.48	0.41	0.54
Actuated g/C Ratio	0.26	0.47	0.15	0.34	0.74	0.22	0.26	0.07	0.09	0.37	0.17
v/c Ratio	14.0	21.9	4.2	23.6	41.3	13.7	21.7	3.2	13.4	24.8	4.4
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	14.0	21.9	4.2	23.6	41.3	13.7	21.7	3.2	13.4	24.8	4.4
Total Delay	B	C	A	C	D	B	C	A	B	C	A
LOS	B	C	A	C	D	B	C	A	B	C	A
Approach Delay	15.5	15.5	15.5	38.1	38.1	16.1	16.1	17.1	17.1	17.1	17.1
Approach LOS	B	B	B	D	D	B	B	B	B	B	B
Intersection Summary											
Cycle Length: 100											
Actuated Cycle Length: 100											
Offset: 6 (6%), Referenced to phase 2:NBLT and 6:SBTL, Start of Green											
Natural Cycle: 65											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.74											
Intersection Signal Delay: 24.4											
Intersection Capacity Utilization 52.4%											
Analysis Period (min) 15											
Intersection LOS: C											
[C] Level of Service A											
Spits and Phases: 3: Pennsylvania St & Indian School Rd											
a1 a2 a3 a4 a5 a6 a7 a8											

2012 AM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis 3: Pennsylvania St & Indian School Rd

Terry O. Brown, PE
1/17/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	50	145	75	98	407	41	94	167	58	50	263	145
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	0.99	1.00	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)	1752	1845	1568	1752	3457	1752	1845	1568	1752	1845	1568	1568
Flt Permitted	0.25	1.00	1.00	0.47	1.00	0.48	1.00	1.00	0.62	1.00	1.00	1.00
Satd. Flow (perm)	465	1845	1568	870	3457	880	1845	1568	1142	1845	1568	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.77	0.77	0.77	0.80	0.80	0.80	0.95	0.95	0.95
Adj. Flow (vph)	59	171	88	127	629	53	118	209	70	53	277	153
RTOR Reduction (vph)	0	0	58	0	9	0	0	0	29	0	0	60
Lane Group Flow (vph)	69	171	30	127	673	0	118	209	41	53	277	93
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov	NA
Protected Phases	4	7	4	4	5	3	8	2	2	3	1	6
Permitted Phases	7	4	4	5	3	8	2	2	3	1	6	7
Actuated Green, G (s)	27.5	19.7	33.7	32.9	22.4	51.8	42.8	58.3	47.8	40.8	53.6	53.6
Effective Green, g (s)	27.5	19.7	33.7	32.9	22.4	51.8	42.8	58.3	47.8	40.8	53.6	53.6
Actuated g/C Ratio	0.28	0.20	0.34	0.33	0.22	0.52	0.43	0.58	0.48	0.41	0.54	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	228	363	528	379	774	539	790	914	589	753	840	840
v/s Ratio Prot	0.02	0.09	0.02	0.04	0.04	0.02	0.11	0.03	0.01	0.15	0.06	0.06
v/s Ratio Perm	0.05	0.05	0.05	0.06	0.06	0.09	0.09	0.04	0.04	0.04	0.04	0.04
v/c Ratio	0.26	0.47	0.06	0.34	0.74	0.22	0.26	0.04	0.09	0.37	0.11	0.11
Uniform Delay, d1	27.6	35.5	22.4	24.5	36.1	12.8	18.4	8.9	14.1	20.6	11.4	11.4
Progression Factor	0.57	0.50	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	1.0	0.0	0.5	3.8	0.2	0.8	0.0	0.1	1.4	0.1	0.1
Delay (s)	16.2	18.9	19.3	25.0	39.9	13.0	19.3	8.9	14.1	22.0	11.5	11.5
Level of Service	B	B	B	C	D	B	B	A	B	C	B	B
Approach Delay (s)	18.5	18.5	18.5	37.3	37.3	15.6	15.6	17.8	17.8	17.8	17.8	17.8
Approach LOS	B	B	B	D	D	B	B	C	C	C	C	C
Intersection Summary												
HCM Average Control Delay	24.7											
HCM Volume to Capacity Ratio	0.46											
Actuated Cycle Length (s)	100.0											
Intersection Capacity Utilization	52.4%											
Analysis Period (min)	15											
Critical Lane Group	C											
	20.0											
	A											

2012 AM Peak BUILD Conditions
Existing Geometry
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Timings 3: Indian School Rd & Pennsylvania St

Terry O. Brown, PE
4/16/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	137	477	134	98	346	42	89	318	110	63	247
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	pm-pt	pt-ov	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt
Protected Phases	7	4	4.5	3	8	5	2	2.3	1	6	8.7
Permitted Phases	4			8		2			6		
Detecter Phase	7	4	4.5	3	8	5	2	2.3	1	6	8.7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	11.0	46.0	57.0	10.0	45.0	11.0	34.0	44.0	10.0	33.0	44.0
Total Split (%)	11.0%	46.0%	57.0%	10.0%	45.0%	11.0%	34.0%	44.0%	10.0%	33.0%	44.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	43.8	35.6	47.7	41.0	34.2	38.7	31.6	43.4	36.5	30.5	43.7
Actuated g/C Ratio	0.44	0.36	0.48	0.41	0.34	0.39	0.32	0.43	0.36	0.30	0.44
Vehicle Ratio	0.38	0.86	0.19	0.48	0.35	0.26	0.60	0.16	0.18	0.47	0.13
Control Delay	10.1	28.4	0.6	22.0	23.5	21.2	35.4	4.5	20.8	33.0	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	28.4	0.6	22.0	23.5	21.2	35.4	4.5	20.8	33.0	7.5
LOS	B	C	A	C	C	C	D	A	C	C	A
Approach Delay	20.1			23.2			28.4			28.5	
Approach LOS	C			C			C			C	
Intersection Summary											
Cycle Length: 100											
Offset 88 (88%), Referenced to phase 2-NBTL and 6-SBTL, Start of Green											
Natural Cycle: 70											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.86											
Intersection Signal Delay: 23.2											
Intersection Capacity Utilization 68.1%											
Analysis Period (min) 15											
Spits and Phases:	3: Indian School Rd & Pennsylvania St										
a1	a2	a3	a4	a5	a6	a7	a8				
10.1s	10.1s	10.1s	10.1s	10.1s	10.1s	10.1s	10.1s				
10.1s	10.1s	10.1s	10.1s	10.1s	10.1s	10.1s	10.1s				

2012 PM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis 3: Indian School Rd & Pennsylvania St

Terry O. Brown, PE
4/16/2011

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	137	477	134	98	346	42	89	318	110	63	247
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
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
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	3448	1752	1845	1568	1752	1845	1568
Flt Permitted	0.43	1.00	1.00	0.15	1.00	0.45	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)	797	1845	1568	280	3448	823	1845	1568	672	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94	0.91	0.91	0.91	0.94	0.94
Adj. Flow (vph)	161	561	158	104	358	45	98	349	121	56	263
RTOR Reduction (vph)	0	0	82	0	11	0	0	0	67	0	40
Lane Group Flow (vph)	161	561	158	104	402	0	98	349	64	56	263
Turn Type	pm-pt	pt-ov	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt
Protected Phases	7	4	4.5	3	8	5	2	2.3	1	6	8.7
Permitted Phases	4			8		2			6		
Actuated Green, G (s)	43.8	35.6	47.7	41.0	34.2	38.7	31.6	43.4	36.5	30.5	43.7
Effective Green, g (s)	43.8	35.6	47.7	41.0	34.2	38.7	31.6	43.4	36.5	30.5	43.7
Actuated g/C Ratio	0.44	0.36	0.48	0.41	0.34	0.39	0.32	0.43	0.36	0.30	0.44
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	657	748	215	1179	384	583	681	310	583	685
v/c Ratio Prot	0.63	0.30	0.05	0.03	0.12	0.02	0.19	0.03	0.01	0.14	0.03
v/c Ratio Perm	0.13			0.17		0.06			0.06		
v/c Ratio	0.38	0.85	0.10	0.48	0.34	0.26	0.60	0.08	0.18	0.47	0.08
Uniform Delay, d1	17.6	29.8	14.4	21.5	24.5	20.3	28.9	16.6	21.4	28.2	16.4
Progression Factor	0.52	0.54	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	9.7	0.1	1.7	0.2	0.4	4.5	0.0	0.3	2.8	0.0
Delay (s)	9.7	25.9	1.2	23.2	24.7	20.6	33.3	16.8	21.7	30.9	16.5
Level of Service	A	C	A	C	C	C	C	B	C	C	B
Approach Delay (s)	18.5			24.4			27.6		26.4		
Approach LOS	B			C			C		C		
Intersection Summary											
HCM Average Control Delay	23.3										
HCM Volume to Capacity ratio	0.60										
Actuated Cycle Length (s)	100.0										
Intersection Capacity Utilization	68.1%										
Analysis Period (min)	15										
Critical Lane Group											

2012 PM Peak NOBUILD Conditions
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Existing Geometry

Timings

3: Pennsylvania St & Indian School Rd

Terry O. Brown, PE

1/17/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	145	495	148	98	364	103	318	110	53	247	95
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (prot)	1752	1845	1568	1752	3450	1752	1845	1568	1752	1845	1568
Flt Permitted	0.40	1.00	1.00	1.00	0.15	1.00	0.43	1.00	1.00	0.36	1.00
Satd. Flow (perm)	745	1845	1568	279	3450	799	1845	1568	657	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.94	0.94	0.91	0.91	0.91	0.94	0.94	0.94
Adj. Flow (vph)	171	582	174	104	387	45	113	349	121	56	263
RTOR Reduction (vph)	0	0	86	0	9	0	0	0	68	0	45
Lane Group Flow (vph)	171	582	88	104	423	0	113	349	53	56	263
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov
Protected Phases	7	4	4	5	3	8	5	2	2	3	1
Permitted Phases	4			8		2			6		
Actuated Green, G (s)	46.1	36.8	49.0	40.9	34.2	37.8	30.6	42.3	35.2	29.3	43.6
Effective Green, g (s)	46.1	36.8	49.0	40.9	34.2	37.8	30.6	42.3	35.2	29.3	43.6
Actuated g/C Ratio	0.46	0.37	0.49	0.41	0.34	0.38	0.31	0.42	0.35	0.29	0.44
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	437	679	768	213	1180	371	565	663	296	541	684
vs Ratio Prot	c0.04	c0.32	0.06	0.03	0.12	c0.02	c0.19	0.03	0.01	0.14	0.04
vs Ratio Perm	0.14			0.17		0.09			0.06		
vc Ratio	0.39	0.86	0.11	0.49	0.36	0.30	0.62	0.08	0.19	0.49	0.08
Uniform Delay, d1	16.4	29.2	13.8	21.5	24.7	21.1	29.7	17.2	22.3	29.1	16.5
Progression Factor	0.55	0.53	0.07	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	9.3	0.1	1.8	0.2	0.5	5.0	0.1	0.3	3.1	0.1
Delay (s)	9.5	24.7	1.0	23.3	24.9	21.5	34.7	17.3	22.6	32.2	16.5
Level of Service	A	C	A	C	C	C	C	B	C	C	B
Approach Delay (s)	17.4			24.5			28.5				
Approach LOS	B			C			C				C
Intersection Summary											
HCM Average Control Delay				23.3							
HCM Volume to Capacity ratio				0.66							
Actuated Cycle Length (s)				100.0							
Intersection Capacity Utilization				69.1%							
Analysis Period (min)				15							
c. Critical Lane Group											

2012 PM Peak BUILD Conditions

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2012 PM Peak BUILD Conditions

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Existing Geometry

Timings
6: America's Pkwy & Louisiana Blvd

Terry O. Brown, PE
4/16/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	20	5	132	42	4	1	284	1186	2	989
Turn Type	pm+pt	pt+ov	pm+pt	pt+ov	pm+pt	pt+ov	pt+ov	pm+pt	pt+ov	pm+pt
Protected Phases	7	4	4	5	3	8	8	1	5	2
Permitted Phases	4	4	4	5	3	8	8	1	5	2
Detector Phase	7	4	4	5	3	8	8	1	5	2
Switch Phase	7	4	4	5	3	8	8	1	5	2
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	24.0	50.0	10.0	22.0	32.0	26.0	56.0	10.0	40.0
Total Split (%)	12.0%	24.0%	50.0%	10.0%	22.0%	32.0%	26.0%	56.0%	10.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	14.7	8.0	28.1	14.3	7.8	18.4	15.1	59.9	5.6	50.4
Actuated g/C Ratio	0.15	0.08	0.28	0.14	0.08	0.18	0.15	0.60	0.06	0.50
v/c Ratio	0.11	0.02	0.30	0.10	0.01	0.00	0.04	0.38	0.01	0.36
Control Delay	32.2	40.4	9.4	35.6	42.8	13.0	45.5	11.0	36.5	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	40.4	9.4	35.6	42.8	13.0	45.5	11.0	36.5	12.1
LOS	C	D	A	D	D	B	D	B	D	B
Approach Delay	13.4					35.8		17.5		
Approach LOS	B					D		B		
Intersection Summary										
Cycle Length: 100										
Actuated Cycle Length: 100										
Offset: 7.4 (74%), Referenced to phase 2: NBT and 6: SBT. Start of Green										
Natural Cycle: 65										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.64										
Intersection Signal Delay: 15.6										
Intersection Capacity Utilization: 43.4%										
Analysis Period (min): 15										
Splits and Phases:	6: America's Pkwy & Louisiana Blvd									
	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10
	10 s	15 s	10 s	10 s	10 s	10 s	10 s	10 s	10 s	10 s
	26 s									

2012 AM Peak NOBUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
6: America's Pkwy & Louisiana Blvd

Terry O. Brown, PE
4/16/2011

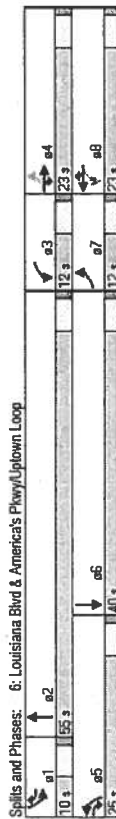
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	20	5	132	42	4	1	284	1186	53	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.85	0.97	0.86
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3400	6305	3400	6310
Flt Permitted	0.74	1.00	1.00	0.75	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1358	3505	1568	2697	3505	1568	3400	6305	3400	6310
Peak-hour factor, PHF	0.85	0.85	0.85	0.96	0.96	0.96	0.86	0.86	0.86	0.90
Adj. Flow (vph)	24	6	155	44	4	1	330	1379	62	2
RTOR Reduction (vph)	0	0	82	0	0	1	0	5	0	4
Lane Group Flow (vph)	24	6	73	44	4	1	330	1436	0	2
Turn Type	pm+pt	pt+ov	pm+pt	pt+ov	pm+pt	pt+ov	pt+ov	pm+pt	pt+ov	pm+pt
Protected Phases	7	4	4	5	3	8	8	1	5	2
Permitted Phases	4									
Actuated Green, G (s)	14.7	8.0	28.1	14.3	7.8	18.4	15.1	59.9	5.6	50.4
Effective Green, g (s)	14.7	8.0	28.1	14.3	7.8	18.4	15.1	59.9	5.6	50.4
Actuated g/C Ratio	0.15	0.08	0.28	0.14	0.08	0.18	0.15	0.60	0.06	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	280	441	431	273	289	513	3777	190	3180
v/s Ratio Prot	e0.01	0.00	e0.05	0.01	0.00	0.00	e0.10	e0.23	0.00	0.18
v/s Ratio Perm	0.01									
v/c Ratio	0.11	0.02	0.17	0.10	0.01	0.00	0.04	0.38	0.01	0.36
Uniform Delay, d1	36.9	42.4	27.1	37.2	42.6	33.3	39.9	10.4	44.6	15.0
Progression Factor	1.00	1.00	1.00	1.12	1.05	0.55	1.00	1.00	0.82	0.74
Incremental Delay, d2	0.2	0.0	0.2	0.1	0.0	0.0	2.8	0.3	0.0	0.3
Delay (s)	37.1	42.4	27.3	41.8	44.8	33.3	42.7	10.7	44.6	15.3
Level of Service	D	D	C	D	D	D	D	B	D	B
Approach Delay (s)	28.1					41.6		16.7		
Approach LOS	C					D		B		
Intersection Summary										
HCM Average Control Delay			15.9							
HCM Volume to Capacity ratio			0.36							
Actuated Cycle Length (s)			100.0							
Intersection Capacity Utilization			43.4%							
Analysis Period (min)			15							
g Critical Lane Group										

2012 AM Peak NOBUILD Conditions
Existing Geometry
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Timings
6: Louisiana Blvd & America's Pkwy/Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	24	8	132	88	1	294	1278	2	991	39
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	7	4	4.5	3	8	8.1	5	2	1	8
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov	Prot	NA	Prot	NA
Protected Phases	7	4	4.5	3	8	8.1	5	2	1	8
Permitted Phases	4									
Detector Phase	7	4	4.5	3	8	8.1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	23.0	12.0	23.0	12.0	23.0	12.0	23.0	12.0	23.0
Total Split (%)	12.0%	23.0%	12.0%	23.0%	12.0%	23.0%	12.0%	23.0%	12.0%	23.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Elit Green (s)	14.7	7.9	28.0	16.3	8.7	19.3	15.1	58.9	5.6	49.4
Act Elit Green Ratio	0.15	0.08	0.28	0.16	0.09	0.19	0.15	0.59	0.06	0.49
Actuated g/C Ratio	0.12	0.03	0.30	0.20	0.03	0.00	0.64	0.42	0.01	0.37
Control Delay	31.5	40.6	9.7	32.3	39.9	24.0	45.6	11.9	36.0	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	40.6	9.7	32.3	39.9	24.0	45.6	11.9	36.0	12.6
LOS	C	D	A	C	D	C	D	B	D	B
Approach Delay	14.3									
Approach LOS	B									
Intersection Summary										
Cycle Length: 100										
Actuated Cycle Length: 100										
Offset: 69 (69%), Referenced to phase 2:NBT and 6:SPT, Start of Green										
Natural Cycle: 65										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.64										
Intersection Signal Delay: 16.3										
Intersection Capacity Utilization: 45.5%										
Analysis Period (min): 15										



HCM Signalized Intersection Capacity Analysis
6: Louisiana Blvd & America's Pkwy/Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	24	8	132	88	1	294	1278	2	991	39	39
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	7	4	4.5	3	8	8.1	5	2	1	8	8
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.86	0.97	0.86	0.97
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3400	6299	3400	6299	3400
Flt Permitted	0.75	1.00	1.00	0.68	1.00	1.00	0.68	1.00	0.95	1.00	0.95
Satd. Flow (perm)	1387	3505	1568	2442	3505	1568	2442	6299	3400	6299	3400
Peak-hour factor, PHF	0.85	0.85	0.85	0.96	0.96	0.96	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	28	9	165	92	8	1	330	1486	77	2	110
RTOR Reduction (vph)	0	0	81	0	0	1	0	6	0	0	4
Lane Group Flow (vph)	28	9	74	92	8	0	330	1567	0	2	1140
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov	Prot	NA	Prot	NA	Prot
Protected Phases	7	4	4.5	3	8	8.1	5	2	1	8	8
Permitted Phases	4										
Actuated Green, G (s)	14.7	7.9	28.0	16.3	8.7	19.3	15.1	58.9	5.6	49.4	5.6
Effective Green, g (s)	14.7	7.9	28.0	16.3	8.7	19.3	15.1	58.9	5.6	49.4	5.6
Actuated g/C Ratio	0.15	0.08	0.28	0.16	0.09	0.19	0.15	0.59	0.06	0.49	0.06
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	229	277	439	471	305	303	513	3710	190	3117	190
v/c Ratio Prot	0.01	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
v/c Ratio Perm	0.01										
v/c Ratio	0.12	0.03	0.17	0.20	0.03	0.00	0.64	0.42	0.01	0.37	0.01
Uniform Delay, d1	37.0	42.5	27.2	36.0	41.8	32.6	39.9	11.2	44.6	15.6	44.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.74	0.80
Incremental Delay, d2	0.2	0.0	0.2	0.2	0.0	0.0	2.8	0.4	0.0	0.3	0.0
Delay (s)	37.2	42.6	27.4	36.2	41.8	32.6	42.7	11.6	35.8	11.9	35.8
Level of Service	D	D	C	D	D	C	D	B	D	B	D
Approach Delay (s)	29.6										
Approach LOS	C										
Intersection Summary											
HCM Average Control Delay	16.6										
HCM Volume to Capacity ratio	0.41										
Actuated Cycle Length (s)	100.0										
Intersection Capacity Utilization	45.6%										
Analysis Period (min)	15										
g Critical Lane Group											

2012 AM Peak BUILD Conditions
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Existing Geometry

Timings 6: America's Pkwy & Louisiana Blvd

Terry O. Brown, PE
4/16/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	31	17	270	83	3	3	136	1887	35	1596
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.86	0.97	0.86
Lane Util. Factor	1.00	1.00	1.00	0.85	1.00	0.85	1.00	0.99	1.00	0.99
Flt. Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3400	6277	3400	6277
Flt. Permitted	0.76	1.00	1.00	0.73	1.00	0.73	1.00	0.95	1.00	0.95
Satd. Flow (perm)	1363	3505	1568	2630	3505	1568	3400	6277	3400	6277
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.75	0.75	0.75	0.92	0.92	0.93
Adj. Flow (vph)	40	22	351	111	4	4	148	1834	143	38
RTOR Reduction (vph)	0	0	45	0	0	0	3	0	11	0
Lane Group Flow (vph)	40	22	306	111	4	4	148	1866	0	38
Turn Type	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt
Protected Phases	7	4	4	5	3	8	8	1	5	2
Permitted Phases	4	4	4	5	3	8	8	1	5	2
Actuated Green, G (s)	25.7	20.3	33.6	26.1	20.5	31.1	6.3	48.5	5.6	45.8
Effective Green, g (s)	25.7	20.3	33.6	26.1	20.5	31.1	6.3	48.5	5.6	45.8
Actuated g/C Ratio	0.26	0.20	0.34	0.26	0.20	0.31	0.08	0.48	0.06	0.46
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	377	712	527	730	719	488	282	3044	190	2869
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.01
v/c Ratio Perm	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Uniform Delay, d1	28.2	32.0	27.4	28.2	31.6	23.8	44.0	19.3	45.1	20.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Delay (s)	28.4	32.0	27.4	28.3	31.6	23.8	44.0	19.3	45.1	20.3
Level of Service	C	C	C	C	C	C	C	C	D	B
Approach Delay (s)	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
Approach LOS	C	C	C	C	C	C	C	C	C	C
Intersection Summary										
HCM Average Control Delay	19.9									
HCM Volume to Capacity Ratio	0.81									
Actuated Cycle Length (s)	100.0									
Intersection Capacity Utilization	57.0%									
Analysis Period (min)	15									
Critical Lane Group	6									

2012 PM Peak NOBUILD Conditions
Existing Geometry
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Timings 6: America's Pkwy & Louisiana Blvd

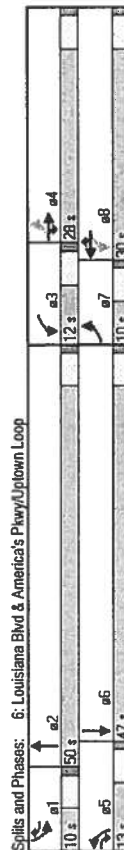
Terry O. Brown, PE
4/16/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	31	17	270	83	3	3	136	1887	35	1596
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.86	0.97	0.86
Lane Util. Factor	1.00	1.00	1.00	0.85	1.00	0.85	1.00	0.99	1.00	0.99
Flt. Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3400	6277	3400	6277
Flt. Permitted	0.76	1.00	1.00	0.73	1.00	0.73	1.00	0.95	1.00	0.95
Satd. Flow (perm)	1363	3505	1568	2630	3505	1568	3400	6277	3400	6277
Peak-hour factor, PHF	0.77	0.77	0.77	0.77	0.75	0.75	0.75	0.92	0.92	0.93
Adj. Flow (vph)	40	22	351	111	4	4	148	1834	143	38
RTOR Reduction (vph)	0	0	45	0	0	0	3	0	11	0
Lane Group Flow (vph)	40	22	306	111	4	4	148	1866	0	38
Turn Type	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt	pm-pt
Protected Phases	7	4	4	5	3	8	8	1	5	2
Permitted Phases	4	4	4	5	3	8	8	1	5	2
Actuated Green, G (s)	25.7	20.3	33.6	26.1	20.5	31.1	6.3	48.5	5.6	45.8
Effective Green, g (s)	25.7	20.3	33.6	26.1	20.5	31.1	6.3	48.5	5.6	45.8
Actuated g/C Ratio	0.26	0.20	0.34	0.26	0.20	0.31	0.08	0.48	0.06	0.46
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	377	712	527	730	719	488	282	3044	190	2869
v/c Ratio	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.01
v/c Ratio Perm	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Uniform Delay, d1	28.2	32.0	27.4	28.2	31.6	23.8	44.0	19.3	45.1	20.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Delay (s)	28.4	32.0	27.4	28.3	31.6	23.8	44.0	19.3	45.1	20.3
Level of Service	C	C	C	C	C	C	C	C	D	B
Approach Delay (s)	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
Approach LOS	C	C	C	C	C	C	C	C	C	C
Intersection Summary										
HCM Average Control Delay	19.9									
HCM Volume to Capacity Ratio	0.81									
Actuated Cycle Length (s)	100.0									
Intersection Capacity Utilization	57.0%									
Analysis Period (min)	15									
Critical Lane Group	6									

2012 PM Peak NOBUILD Conditions
Existing Geometry
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Timings 6: Louisiana Blvd & America's Pkwy/Uptown Loop Terry O. Brown, PE 1/17/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	4	4	4	4	4	4	4	4	4	4
Volume (vph)	42	25	270	278	22	4	136	1939	167	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov	NA	pt-ov	NA	pt-ov
Protected Phases	7	4	4	5	3	8	8	1	2	1
Permitted Phases	4	4	4	5	3	8	8	1	2	1
Detector Phase	7	4	4	5	3	8	8	1	2	1
Switch Phase	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0	10.0	21.0
Minimum Split (s)	10.0	28.0	12.0	30.0	13.0	50.0	10.0	47.0	10.0	47.0
Total Split (%)	10.0%	28.0%	12.0%	30.0%	13.0%	50.0%	10.0%	47.0%	10.0%	47.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	25.9	20.9	33.8	29.9	22.9	33.2	7.9	46.8	5.3	44.2
Actuated g/C Ratio	0.26	0.21	0.34	0.30	0.23	0.33	0.08	0.47	0.05	0.44
v/c Ratio	0.15	0.04	0.65	0.47	0.04	0.01	0.55	0.78	0.21	0.63
Control Delay	23.5	30.4	32.3	27.7	28.8	13.2	52.4	24.6	46.7	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	30.4	32.3	27.7	28.8	13.2	52.4	24.6	46.7	16.4
LOS	C	C	C	C	C	B	D	C	D	B
Approach Delay	31.0			27.6			26.3			17.1
Approach LOS	C			C			C			B



2012 PM Peak BUILD Conditions

Existing Geometry

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HCM Signalized Intersection Capacity Analysis 6: Louisiana Blvd & America's Pkwy/Uptown Loop Terry O. Brown, PE 1/17/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	4	4	4	4	4	4	4	4	4	4
Volume (vph)	42	25	270	278	22	4	136	1939	167	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.86	0.97	0.86
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	1.00	1.00
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1752	3505	1568	3400	3505	1568	3400	6270	3400	6329
Satd. Flow (perm)	1360	3505	1568	2401	3505	1568	3400	6270	3400	6329
Peak-hour factor, PHF	0.77	0.77	0.77	0.75	0.75	0.75	0.92	0.92	0.92	0.93
Adj. Flow (vph)	55	32	351	371	29	5	148	2108	182	38
RTOR Reduction (vph)	0	0	13	0	0	0	0	13	0	0
Lane Group Flow (vph)	55	32	338	371	29	2	148	2277	0	38
Turn Type	pm-pt	NA	pt-ov	pm-pt	NA	pt-ov	NA	pt-ov	NA	pt-ov
Protected Phases	7	4	4	5	3	8	8	1	2	1
Permitted Phases	4	4	4	5	3	8	8	1	2	1
Actuated Green, G (s)	25.9	20.9	33.8	29.9	22.9	33.2	7.9	46.8	5.3	44.2
Effective Green, g (s)	25.9	20.9	33.8	29.9	22.9	33.2	7.9	46.8	5.3	44.2
Actuated g/C Ratio	0.26	0.21	0.34	0.30	0.23	0.33	0.08	0.47	0.05	0.44
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	372	733	530	788	803	521	269	2834	180	2797
v/s Ratio Prot	0.01	0.01	0.22	0.03	0.01	0.00	0.04	0.01	0.01	0.28
v/s Ratio Perm	0.03			0.11						
v/c Ratio	0.15	0.04	0.64	0.47	0.04	0.00	0.55	0.78	0.21	0.63
Uniform Delay, d1	28.3	31.6	27.9	27.9	30.0	22.3	44.3	22.2	45.3	21.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.71
Incremental Delay, d2	0.2	0.0	2.5	0.4	0.0	0.0	2.4	2.1	0.4	0.8
Delay (s)	28.5	31.6	30.5	28.4	30.0	22.3	46.8	24.3	44.8	16.1
Level of Service	C	C	C	C	C	C	D	C	D	B
Approach Delay (s)	30.3			28.4			25.7			16.7
Approach LOS	C			C			C			B

Intersection Summary										
HCM Average Control Delay	23.1									
HCM Volume to Capacity ratio	0.72									
Actuated Cycle Length (s)	100.0									
Intersection Capacity Utilization	62.1%									
Analysis Period (min)	15									
Critical Lane Group										

2012 PM Peak BUILD Conditions

Existing Geometry

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HCM Unsignalized Intersection Capacity Analysis 4: Indian School Rd & Espanola St

Terry O. Brown, PE
4/16/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	267	1	2	582	8	1	1	1	3	11	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.85	0.85	0.85	0.75	0.75	0.75
Hourly flow rate (vph)	18	303	1	2	633	9	1	1	1	4	15	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		740			1152							
pX, platoon unblocked	0.95			0.99			0.96	0.96	0.99	0.96	0.96	0.95
vC, conflicting volume	641			305			680	986	152	831	982	321
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	527			266			519	837	111	676	833	190
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	100	100	99	95	98
cM capacity (veh/h)	982			1270			391	282	904	318	283	778
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	18	202	102	2	422	220	4	31				
Volume Left	18	0	0	2	0	0	1	4				
Volume Right	0	0	1	0	0	9	1	12				
cSH	982	1700	1700	1270	1700	1700	416	384				
Volume to Capacity	0.02	0.12	0.06	0.00	0.25	0.13	0.01	0.08				
Queue Length 95th (ft)	1	0	0	0	0	0	1	6				
Control Delay (s)	8.7	0.0	0.0	7.8	0.0	0.0	13.7	15.2				
Lane LOS	A			A			B	C				
Approach Delay (s)	0.5			0.0			13.7	15.2				
Approach LOS							B	C				
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			26.3%			ICU Level of Service		A				
Analysis Period (min)			15									

2012 AM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 4: Indian School Rd & Espanola St

Terry O. Brown, PE
1/7/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	276	1	2	596	8	1	1	1	3	11	10
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.85	0.85	0.85	0.75	0.75	0.75
Hourly flow rate (vph)	19	314	1	2	648	9	1	1	1	4	15	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)	740			1152								
pX, platoon unblocked	0.95			0.98			0.96	0.96	0.98	0.96	0.96	0.95
vC, conflicting volume	657			315			702	1014	157	854	1010	328
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	536			265			522	846	105	680	842	191
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	100	100	99	95	98
cM capacity (veh/h)	971			1265			388	278	909	315	279	776
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	19	209	106	2	432	225	4	32				
Volume Left	19	0	0	2	0	0	1	4				
Volume Right	0	0	1	0	0	9	1	13				
cSH	971	1700	1700	1265	1700	1700	412	388				
Volume to Capacity	0.02	0.12	0.06	0.00	0.25	0.13	0.01	0.08				
Queue Length 95th (ft)	2	0	0	0	0	0	1	7				
Control Delay (s)	8.8	0.0	0.0	7.9	0.0	0.0	13.8	15.1				
Lane LOS	A			A			B	C				
Approach Delay (s)	0.5			0.0			13.8	15.1				
Approach LOS							B	C				
Intersection Summary												
Average Delay				0.7								
Intersection Capacity Utilization				26.7%	ICU Level of Service			A				
Analysis Period (min)				15								

2012 AM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 4: Indian School Rd & Espanola St

Terry O. Brown, PE
4/16/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	760	38	15	491	1	26	2	20	11	1	34
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	65	927	46	17	558	1	35	3	27	15	1	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
	740			1152								
pX, platoon unblocked	1.00			0.83			0.83	0.83	0.83	0.83	0.83	1.00
vC, conflicting volume	559			973			1438	1672	487	1213	1695	280
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	555			568			1118	1399	0	848	1426	274
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			98			70	97	97	92	99	94
cM capacity (veh/h)	1003			828			116	106	901	188	102	719
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	65	618	355	17	372	187	64	61				
Volume Left	65	0	0	17	0	0	35	15				
Volume Right	0	0	46	0	0	1	27	45				
cSH	1003	1700	1700	828	1700	1700	181	398				
Volume to Capacity	0.06	0.36	0.21	0.02	0.22	0.11	0.35	0.15				
Queue Length 95th (ft)	5	0	0	2	0	0	37	13				
Control Delay (s)	8.8	0.0	0.0	9.4	0.0	0.0	35.3	15.7				
Lane LOS	A			A			E	C				
Approach Delay (s)	0.6			0.3			35.3	15.7				
Approach LOS							E	C				
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			41.2%		ICU Level of Service			A				
Analysis Period (min)			15									

2012 PM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 4: Indian School Rd & Espanola St

Terry O. Brown, PE
1/7/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	760	38	15	531	1	26	2	20	11	1	37
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.82	0.82	0.82	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	65	927	46	17	603	1	35	3	27	15	1	49
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage veh												
Upstream signal (ft)	740			1152								
pX, platoon unblocked	0.99			0.82			0.83	0.83	0.82	0.83	0.83	0.99
vC, conflicting volume	605			973			1465	1718	487	1259	1741	302
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	577			529			1081	1387	0	831	1414	272
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			98			72	97	97	92	99	93
cM capacity (veh/h)	974			843			122	106	887	191	102	715
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	65	618	355	17	402	202	64	65				
Volume Left	65	0	0	17	0	0	35	15				
Volume Right	0	0	46	0	0	1	27	49				
cSH	974	1700	1700	843	1700	1700	188	412				
Volume to Capacity	0.07	0.36	0.21	0.02	0.24	0.12	0.34	0.16				
Queue Length 95th (ft)	5	0	0	2	0	0	35	14				
Control Delay (s)	9.0	0.0	0.0	9.4	0.0	0.0	33.7	15.4				
Lane LOS	A			A			D	C				
Approach Delay (s)	0.6			0.3			33.7	15.4				
Approach LOS							D	C				
Intersection Summary												
Average Delay	2.2											
Intersection Capacity Utilization	41.4%			ICU Level of Service					A			
Analysis Period (min)	15											

2012 PM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 5: Indian School Rd & Q Street

Terry O. Brown, PE
4/16/2011



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	61	282	523	10	2	31
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.93	0.93	0.75	0.75
Hourly flow rate (vph)	67	310	562	11	3	41
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		396	360			
pX, platoon unblocked	0.93				0.93	0.93
VC, conflicting volume	573				857	287
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	387				692	78
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				99	95
cM capacity (veh/h)	1078				327	895
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	67	155	155	375	198	44
Volume Left	67	0	0	0	0	3
Volume Right	0	0	0	0	11	41
cSH	1078	1700	1700	1700	1700	810
Volume to Capacity	0.06	0.09	0.09	0.22	0.12	0.05
Queue Length 95th (ft)	5	0	0	0	0	4
Control Delay (s)	8.6	0.0	0.0	0.0	0.0	9.7
Lane LOS	A					A
Approach Delay (s)	1.5			0.0		9.7
Approach LOS						A
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			31.5%		ICU Level of Service	A
Analysis Period (min)			15			

2012 AM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 5: Q Street & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	61	282	19	12	523	10	3	1	11	2	1	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.85	0.85	0.93	0.93	0.85	0.85	0.85	0.75	0.85	0.75
Hourly flow rate (vph)	67	310	22	14	562	11	4	1	13	3	1	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		396			360							
pX, platoon unblocked	0.93						0.93	0.93		0.93	0.93	0.93
vC, conflicting volume	573			332			795	1045	155	899	1062	287
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	385			332			625	894	155	736	912	77
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			99	100	98	99	99	95
cM capacity (veh/h)	1079			1217			306	239	860	262	233	896
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1		
Volume Total	67	155	155	22	14	375	198	4	14	45		
Volume Left	67	0	0	0	14	0	0	4	0	3		
Volume Right	0	0	0	22	0	0	11	0	13	41		
cSH	1079	1700	1700	1700	1217	1700	1700	306	707	737		
Volume to Capacity	0.06	0.09	0.09	0.01	0.01	0.22	0.12	0.01	0.02	0.06		
Queue Length 95th (ft)	5	0	0	0	1	0	0	1	2	5		
Control Delay (s)	8.6	0.0	0.0	0.0	8.0	0.0	0.0	16.9	10.2	10.2		
Lane LOS	A				A			C	B	B		
Approach Delay (s)	1.4				0.2			11.5		10.2		
Approach LOS								B		B		
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			32.0%			ICU Level of Service				A		
Analysis Period (min)			15									

2012 AM Peak BUILD Conditions

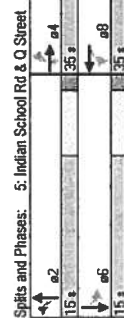
Existing Geometry
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Timings 5: Indian School Rd & Q Street

Terry O. Brown, PE
4/26/2011

EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
61	282	19	1	523	20	1	2	1
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
4	4	4	8	8	2	2	6	8
4	4	4	8	8	2	2	6	8
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.14	0.15	0.02	0.00	0.27	0.09	0.04	0.13	0.13
5.4	5.0	2.6	4.0	7.7	17.4	10.3	8.3	8.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.4	5.0	2.6	4.0	7.7	17.4	10.3	8.3	8.3
A	A	A	A	A	A	B	B	A
A	A	A	A	A	A	B	B	A
Intersection Summary								
Cycle Length: 50								
Actuated Cycle Length: 50								
Offset: 46 (92%), Referenced to phase 4EBTL and 8WBTL, Start of Green								
Natural Cycle: 45								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 0.27								
Intersection Signal Delay: 6.9								
Intersection Capacity Utilization: 39.2%								
Analysis Period (min): 15								

1/2 cycle length



HCM Signalized Intersection Capacity Analysis 5: Indian School Rd & Q Street

Terry O. Brown, PE
4/26/2011

EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
61	282	19	1	523	20	1	2	1
1900	1900	1900	1900	1900	1900	1900	1900	1900
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00
1.00	1.00	0.85	1.00	1.00	1.00	0.85	1.00	0.88
0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
1752	3505	1568	1752	3495	1752	1568	1612	1592
0.44	1.00	1.00	0.56	1.00	0.73	1.00	0.98	0.98
805	3505	1568	1039	3495	1342	1599	1592	1592
0.91	0.91	0.85	0.85	0.93	0.85	0.85	0.85	0.85
67	310	22	1	562	11	24	3	1
0	0	0	0	3	0	0	0	0
67	310	13	1	570	0	24	3	0
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
4	4	4	8	8	2	2	6	8
30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
483	2103	941	623	2097	268	318	318	318
0.09	0.09	0.01	0.00	0.16	0.00	0.00	0.01	0.01
0.08	0.14	0.15	0.01	0.00	0.27	0.09	0.01	0.04
4.4	4.4	4.0	4.0	4.8	16.3	16.0	16.1	16.1
1.07	1.09	1.51	1.04	1.55	1.00	1.00	1.00	1.00
0.6	0.1	0.0	0.0	0.3	0.7	0.1	0.2	0.2
5.2	4.9	6.1	4.2	7.7	17.0	18.1	18.3	18.3
A	A	A	A	A	B	B	B	B
5.1	5.1	5.1	7.7	7.7	16.7	16.7	16.3	16.3
A	A	A	A	A	B	B	B	B
Intersection Summary								
HCM Average Control Delay			7.4	HCM Level of Service			A	
HCM Volume to Capacity ratio			0.23	Sum of lost time (s)			10.0	
Actuated Cycle Length (s)			50.0	ICU Level of Service			A	
Intersection Capacity Utilization			39.2%	Analysis Period (min)			15	
Analysis Period (min)			15					
Critical Lane Group								

2012 AM Peak BUILD Conditions

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2012 AM Peak BUILD Conditions

MITIGATED Geometry

Queues

5: Indian School Rd & Q Street

Terry O. Brown, PE

6/16/2011



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	67	310	22	1	573	24	13	45
v/c Ratio	0.14	0.15	0.02	0.00	0.27	0.09	0.04	0.13
Control Delay	5.4	5.0	2.6	4.0	7.7	17.4	10.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	5.0	2.6	4.0	7.7	17.4	10.3	8.3
Queue Length 50th (ft)	11	27	0	0	113	6	0	1
Queue Length 95th (ft)	25	43	7	m1	76	20	10	19
Internal Link Dist (ft)		316			78		100	431
Turn Bay Length (ft)	50		60	80		50		
Base Capacity (vph)	482	2103	950	623	2099	269	328	351
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.02	0.00	0.27	0.09	0.04	0.13

Intersection Summary

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

HCM Unsignalized Intersection Capacity Analysis 5: Indian School Rd & Q Street

Terry O. Brown, PE
4/26/2011



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑		↰	
Volume (veh/h)	72	719	759	86	19	105
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.75	0.75
Hourly flow rate (vph)	84	836	843	96	25	140
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		396	360			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	939				1477	469
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	702				1302	179
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	89				79	81
cM capacity (veh/h)	793				121	745
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	84	418	418	562	377	165
Volume Left	84	0	0	0	0	25
Volume Right	0	0	0	0	96	140
cSH	793	1700	1700	1700	1700	417
Volume to Capacity	0.11	0.25	0.25	0.33	0.22	0.40
Queue Length 95th (ft)	9	0	0	0	0	47
Control Delay (s)	10.1	0.0	0.0	0.0	0.0	19.2
Lane LOS	B					C
Approach Delay (s)	0.9			0.0		19.2
Approach LOS						C
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			45.2%		ICU Level of Service	A
Analysis Period (min)			15			

2012 PM Peak NOBUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 5: Q Street & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	72	704	100	50	743	86	94	1	62	19	1	105
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.85	0.85	0.85	0.75	0.75	0.75
Hourly flow rate (vph)	84	819	116	56	826	96	111	1	73	25	1	140
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		396			360							
pX, platoon unblocked	0.90						0.90	0.90		0.90	0.90	0.90
vC, conflicting volume	921			935			1651	2018	409	1635	2087	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	694			935			1503	1911	409	1486	1987	183
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			92			0	98	88	56	97	81
cM capacity (veh/h)	803			722			51	50	589	58	44	743
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1		
Volume Total	84	409	409	116	56	550	371	111	74	167		
Volume Left	84	0	0	0	56	0	0	111	0	25		
Volume Right	0	0	0	116	0	0	96	0	73	140		
cSH	803	1700	1700	1700	722	1700	1700	51	502	253		
Volume to Capacity	0.10	0.24	0.24	0.07	0.08	0.32	0.22	2.15	0.15	0.66		
Queue Length 95th (ft)	9	0	0	0	6	0	0	278	13	104		
Control Delay (s)	10.0	0.0	0.0	0.0	10.4	0.0	0.0	699.9	13.4	43.0		
Lane LOS	B				B			F	B	E		
Approach Delay (s)	0.8				0.6			424.4		43.0		
Approach LOS								F		E		
Intersection Summary												
Average Delay				37.1								
Intersection Capacity Utilization			51.5%		ICU Level of Service				A			
Analysis Period (min)			15									

2012 PM Peak BUILD Conditions

Existing Geometry
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Timings
5: Indian School Rd & Q Street

Terry O. Brown, PE
4/26/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	72	704	100	16	743	166	1	19	1
Volume (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	4	4	4	4	2	2	6
Protected Phases	4	4	4	4	4	4	2	2	6
Detector Phase	4	4	4	4	4	4	2	2	6
Switch Phase	4	4	4	4	4	4	2	2	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	21.0	21.0	21.0
Total Split (%)	58.0%	58.0%	58.0%	58.0%	58.0%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag									
Lead/Lag Optimized?									
Recall Mode									
Act Effect Green (s)	24.0	24.0	24.0	24.0	24.0	16.0	16.0	16.0	16.0
Act Effect Green (s)	24.0	24.0	24.0	24.0	24.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.32	0.32	0.32	0.32
v/c Ratio	0.38	0.49	0.14	0.07	0.55	0.46	0.13	0.29	0.29
Control Delay	12.7	10.5	2.6	8.3	11.2	17.8	4.8	6.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	10.5	2.6	8.3	11.2	17.8	4.8	6.8	6.8
LOS	B	B	A	A	B	B	A	A	A
Approach Delay									
Approach LOS									
Intersection Summary									
Cycle Length: 50									
Actuated Cycle Length: 50									
Offset: 14 (28%), Referenced to phase 4EBTL and 8WBTL, Start of Green									
Natural Cycle: 45									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.55									
Intersection Signal Delay: 10.6									
Intersection Capacity Utilization 55.8%									
Analysis Period (min) 15									

1/2 cycle length

Splits and Phases: 5: Indian School Rd & Q Street



HCM Signalized Intersection Capacity Analysis
5: Indian School Rd & Q Street

Terry O. Brown, PE
4/26/2011

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	72	704	100	16	743	166	1	19	1
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Lost Time (s)	1.00	0.95	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.95	1.00	0.98	1.00	0.95	0.98	0.95
Flt. Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.98
Satd. Flow (prot)	1752	3505	1568	1752	3450	1752	1572	1622	1622
Flt. Permitted	0.25	1.00	1.00	0.30	1.00	0.72	1.00	0.95	0.95
Satd. Flow (perm)	462	3505	1568	549	3450	1336	1572	1561	1561
Peak-hour factor, PHF	0.86	0.86	0.86	0.90	0.90	0.85	0.85	0.75	0.75
Adj. Flow (vph)	94	819	116	18	826	196	1	68	25
RTOR Reduction (vph)	0	0	0	0	18	0	46	0	76
Lane Group Flow (vph)	94	819	56	18	904	0	195	23	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	2	2	6	6
Permitted Phases	4	4	4	4	4	2	2	6	6
Actuated Green, G (s)	24.0	24.0	24.0	24.0	24.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	24.0	24.0	24.0	24.0	24.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.32	0.32	0.32	0.32
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	222	1682	753	264	1656	428	503	500	500
v/s Ratio Prot	0.18	0.23	0.04	0.03	0.26	0.15	0.01	0.06	0.06
v/c Ratio Perm	0.38	0.49	0.07	0.07	0.55	0.46	0.05	0.18	0.18
Uniform Delay, d1	8.3	8.8	7.0	9.2	13.5	11.7	12.3	12.3	12.3
Progression Factor	1.10	1.11	1.68	1.06	1.11	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.6	0.1	0.5	1.3	3.5	0.2	0.8	0.8
Delay (s)	11.9	10.4	11.9	8.1	11.4	17.0	11.9	13.1	13.1
Level of Service	B	B	B	A	B	B	B	B	B
Approach Delay (s)									
Approach LOS									
Intersection Summary									
HCM Average Control Delay									
HCM Volume to Capacity ratio									
Actuated Cycle Length (s)									
Intersection Capacity Utilization									
Analysis Period (min)									
Critical Lane Group									

2012 PM Peak BUILD Conditions

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MITIGATED Geometry

Queues

5: Indian School Rd & Q Street

Terry O. Brown, PE

6/16/2011



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	84	819	116	18	922	195	69	166
v/c Ratio	0.38	0.49	0.14	0.07	0.55	0.46	0.13	0.29
Control Delay	12.7	10.5	2.6	8.3	11.2	17.8	4.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	10.5	2.6	8.3	11.2	17.8	4.8	6.8
Queue Length 50th (ft)	23	129	10	3	85	45	0	11
Queue Length 95th (ft)	m32	m139	m15	m11	256	86	18	32
Internal Link Dist (ft)		316			78		100	431
Turn Bay Length (ft)	50		60	80		50		
Base Capacity (vph)	221	1682	813	263	1673	428	549	576
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.49	0.14	0.07	0.55	0.46	0.13	0.29

Intersection Summary

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

HCM Unsignalized Intersection Capacity Analysis 7: Louisiana Blvd & 'A'

Terry O. Brown, PE
1/7/2012 - Synchro 7

											
Movement	WBL	WBR	NBT	NBR	SBL	SBT					
Lane Configurations											
Volume (veh/h)	0	11	1206	96	0	1030					
Sign Control	Stop		Free			Free					
Grade	0%		0%			0%					
Peak Hour Factor	0.85	0.85	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	0	13	1340	107	0	1144					
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type	None					None					
Median storage veh											
Upstream signal (ft)	376					343					
pX, platoon unblocked	0.92	0.88					0.88				
vC, conflicting volume	1679	388					1447				
vC1, stage 1 conf vol											
vC2, stage 2 conf vol											
vCu, unblocked vol	551	0					854				
tC, single (s)	6.9	7.0					4.2				
tC, 2 stage (s)											
tF (s)	3.5	3.3					2.2				
p0 queue free %	100	99					100				
cM capacity (veh/h)	427	957					686				
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4		
Volume Total	13	383	383	383	298	286	286	286	286		
Volume Left	0	0	0	0	0	0	0	0	0		
Volume Right	13	0	0	0	107	0	0	0	0		
cSH	957	1700	1700	1700	1700	1700	1700	1700	1700		
Volume to Capacity	0.01	0.23	0.23	0.23	0.18	0.17	0.17	0.17	0.17		
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	0		
Control Delay (s)	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Lane LOS	A										
Approach Delay (s)	8.8	0.0					0.0				
Approach LOS	A										
Intersection Summary											
Average Delay			0.0								
Intersection Capacity Utilization			29.1%		ICU Level of Service				A		
Analysis Period (min)			15								

2012 AM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 7: Louisiana Blvd & 'A'

Terry O. Brown, PE
1/7/2012 - Synchro 7

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	0	46	1689	296	0	1659			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.85	0.85	0.93	0.93	0.93	0.93			
Hourly flow rate (vph)	0	54	1816	318	0	1784			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage veh									
Upstream signal (ft)			376			343			
pX, platoon unblocked	0.79	0.71			0.71				
vC, conflicting volume	2421	613			2134				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	0	0			563				
tC, single (s)	6.9	7.0			4.2				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	100	93			100				
cM capacity (veh/h)	801	769			709				
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	54	519	519	519	578	446	446	446	446
Volume Left	0	0	0	0	0	0	0	0	0
Volume Right	54	0	0	0	318	0	0	0	0
cSH	769	1700	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.07	0.31	0.31	0.31	0.34	0.26	0.26	0.26	0.26
Queue Length 95th (ft)	6	0	0	0	0	0	0	0	0
Control Delay (s)	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B								
Approach Delay (s)	10.0	0.0				0.0			
Approach LOS	B								
Intersection Summary									
Average Delay			0.1						
Intersection Capacity Utilization			39.4%		ICU Level of Service			A	
Analysis Period (min)			15						

2012 PM Peak BUILD Conditions

Existing Geometry
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A-92

HCM Unsignalized Intersection Capacity Analysis 8: Uptown Loop & 'B'

Terry O. Brown, PE
1/7/2012 - Synchro 7



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Volume (veh/h)	0	76	53	0	0	44
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.85	0.85
Hourly flow rate (vph)	0	79	55	0	0	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		264				
pX, platoon unblocked						
vC, conflicting volume	55				95	28
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	55				95	28
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	95
cM capacity (veh/h)	1541				891	1038
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	40	40	37	18	52	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	52	
cSH	1700	1700	1700	1700	1038	
Volume to Capacity	0.02	0.02	0.02	0.01	0.05	
Queue Length 95th (ft)	0	0	0	0	4	
Control Delay (s)	0.0	0.0	0.0	0.0	8.7	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		8.7	
Approach LOS					A	
Intersection Summary						
Average Delay			2.4			
Intersection Capacity Utilization			13.3%		ICU Level of Service	A
Analysis Period (min)			15			

2012 AM Peak BUILD Conditions

Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis 8: Uptown Loop & 'B'

Terry O. Brown, PE
1/7/2012 - Synchro 7



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Volume (veh/h)	0	228	118	0	0	186
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85
Hourly flow rate (vph)	0	304	157	0	0	219
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		264				
pX, platoon unblocked						
vC, conflicting volume	157				309	79
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	157				309	79
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	77
CM capacity (veh/h)	1413				656	963
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	152	152	105	52	219	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	219	
cSH	1700	1700	1700	1700	963	
Volume to Capacity	0.09	0.09	0.06	0.03	0.23	
Queue Length 95th (ft)	0	0	0	0	22	
Control Delay (s)	0.0	0.0	0.0	0.0	9.8	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.8	
Approach LOS					A	
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			21.5%		ICU Level of Service	A
Analysis Period (min)			15			

2012 PM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012PBX.syn

HCM Unsignalized Intersection Capacity Analysis 9: 'C' & Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1	24	17	56	106	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	28	23	75	141	5
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				799	411	
pX, platoon unblocked						
vC, conflicting volume	228	74	148			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	228	74	148			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	98			
cM capacity (veh/h)	725	968	1423			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	29	48	50	94	52	
Volume Left	1	23	0	0	0	
Volume Right	28	0	0	0	5	
cSH	955	1423	1700	1700	1700	
Volume to Capacity	0.03	0.02	0.03	0.06	0.03	
Queue Length 95th (ft)	2	1	0	0	0	
Control Delay (s)	8.9	3.7	0.0	0.0	0.0	
Lane LOS	A	A				
Approach Delay (s)	8.9	1.8		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			17.6%	ICU Level of Service		A
Analysis Period (min)			15			

2012 AM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012ABX.syn

HCM Unsignalized Intersection Capacity Analysis 9: 'C' & Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	103	46	180	164	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	5	121	56	220	200	12
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				799	411	
pX, platoon unblocked						
vC, conflicting volume	429	107	213			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	429	107	213			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	87	96			
cM capacity (veh/h)	528	922	1346			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	126	129	146	133	79	
Volume Left	5	56	0	0	0	
Volume Right	121	0	0	0	12	
cSH	897	1346	1700	1700	1700	
Volume to Capacity	0.14	0.04	0.09	0.08	0.05	
Queue Length 95th (ft)	12	3	0	0	0	
Control Delay (s)	9.7	3.6	0.0	0.0	0.0	
Lane LOS	A	A				
Approach Delay (s)	9.7	1.7		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay	2.7					
Intersection Capacity Utilization	28.0%			ICU Level of Service	A	
Analysis Period (min)	15					

2012 PM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012PBX.syn

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HCM Unsignalized Intersection Capacity Analysis 10: 'D' & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (veh/h)	309	0	0	532	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.85	0.85
Hourly flow rate (vph)	372	0	0	641	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	554			202		
pX, platoon unblocked					0.91	
vC, conflicting volume			372		693	186
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			372		462	186
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1176		478	821
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	186	186	320	320	1	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	1	
cSH	1700	1700	1700	1700	821	
Volume to Capacity	0.11	0.11	0.19	0.19	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	0.0	0.0	0.0	0.0	9.4	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.4	
Approach LOS					A	
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			18.5%		ICU Level of Service	A
Analysis Period (min)			15			

2012 AM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012ABX.syn

HCM Unsignalized Intersection Capacity Analysis 10: 'D' & Indian School Rd

Terry O. Brown, PE
1/7/2012 - Synchro 7

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Volume (veh/h)	883	0	0	666	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.85	0.85
Hourly flow rate (vph)	992	0	0	748	0	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	554			202		
pX, platoon unblocked					0.89	
vC, conflicting volume			992		1366	496
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			992		1159	496
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			687		166	517
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	496	496	374	374	6	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	0	6	
cSH	1700	1700	1700	1700	517	
Volume to Capacity	0.29	0.29	0.22	0.22	0.01	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	12.0	
Lane LOS					B	
Approach Delay (s)	0.0		0.0		12.0	
Approach LOS					B	
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			34.4%		ICU Level of Service	A
Analysis Period (min)			15			

2012 PM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012PBX.syn

HCM Unsignalized Intersection Capacity Analysis 11: Uptown Loop & Romano's dr

Terry O. Brown, PE
4/16/2011

	→	↘	↙	←	↖	↗	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑	↑	↘	↑↑		↑	
Volume (veh/h)	60	3	46	46	0	5	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	
Hourly flow rate (vph)	80	4	61	61	0	6	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	345			879			
pX, platoon unblocked							
vC, conflicting volume			84		233	40	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			84		233	40	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			96		100	99	
cM capacity (veh/h)			1503		702	1019	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	40	40	4	61	31	31	6
Volume Left	0	0	0	61	0	0	0
Volume Right	0	0	4	0	0	0	6
cSH	1700	1700	1700	1503	1700	1700	1019
Volume to Capacity	0.02	0.02	0.00	0.04	0.02	0.02	0.01
Queue Length 95th (ft)	0	0	0	3	0	0	0
Control Delay (s)	0.0	0.0	0.0	7.5	0.0	0.0	8.6
Lane LOS				A			A
Approach Delay (s)	0.0			3.7			8.6
Approach LOS							A
Intersection Summary							
Average Delay			2.4				
Intersection Capacity Utilization			13.3%		ICU Level of Service		A
Analysis Period (min)			15				

2012 AM Peak NOBUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS\Hunt_Monroe_Site_Uptown\Synchro\2012\ANX.syn

HCM Unsignalized Intersection Capacity Analysis 11: Romano's dr & Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

	→	↘	↙	←	↖	↗	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑	↑	↑	↑↑		↑	
Volume (veh/h)	76	3	65	53	0	6	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	
Hourly flow rate (vph)	101	4	87	71	0	7	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	345						
pX, platoon unblocked							
vC, conflicting volume			105		310	51	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			105		310	51	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			94		100	99	
cM capacity (veh/h)			1476		617	1003	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	51	51	4	87	35	35	7
Volume Left	0	0	0	87	0	0	0
Volume Right	0	0	4	0	0	0	7
cSH	1700	1700	1700	1476	1700	1700	1003
Volume to Capacity	0.03	0.03	0.00	0.06	0.02	0.02	0.01
Queue Length 95th (ft)	0	0	0	5	0	0	1
Control Delay (s)	0.0	0.0	0.0	7.6	0.0	0.0	8.6
Lane LOS				A			A
Approach Delay (s)	0.0			4.2			8.6
Approach LOS							A
Intersection Summary							
Average Delay			2.7				
Intersection Capacity Utilization			13.6%		ICU Level of Service		A
Analysis Period (min)			15				

2012 AM Peak BUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS_2011\Hunt_Monroe_Site_Uptown\Synchro\2012ABX.syn

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HCM Unsignalized Intersection Capacity Analysis 11: Uptown Loop & Romano's dr

Terry O. Brown, PE
4/16/2011

	→	↘	↙	←	↖	↗	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑	↗	↙	↑↑		↗	
Volume (veh/h)	184	31	56	89	0	22	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	
Hourly flow rate (vph)	245	41	75	119	0	26	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh							
Upstream signal (ft)	345			861			
pX, platoon unblocked							
vC, conflicting volume			287		454	123	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			287		454	123	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			94		100	97	
cM capacity (veh/h)			1265		501	902	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	123	123	41	75	59	59	26
Volume Left	0	0	0	75	0	0	0
Volume Right	0	0	41	0	0	0	26
cSH	1700	1700	1700	1265	1700	1700	902
Volume to Capacity	0.07	0.07	0.02	0.06	0.03	0.03	0.03
Queue Length 95th (ft)	0	0	0	5	0	0	2
Control Delay (s)	0.0	0.0	0.0	8.0	0.0	0.0	9.1
Lane LOS				A			A
Approach Delay (s)	0.0			3.1			9.1
Approach LOS							A
Intersection Summary							
Average Delay			1.7				
Intersection Capacity Utilization			15.1%		ICU Level of Service		A
Analysis Period (min)			15				

2012 PM Peak NOBUILD Conditions

Existing Geometry
D:\ATOB\PROJECTS\Hunt_Monroe_Site_Uptown\Synchro\2012PNX.syn

HCM Unsignalized Intersection Capacity Analysis 11: Romano's dr & Uptown Loop

Terry O. Brown, PE
1/7/2012 - Synchro 7

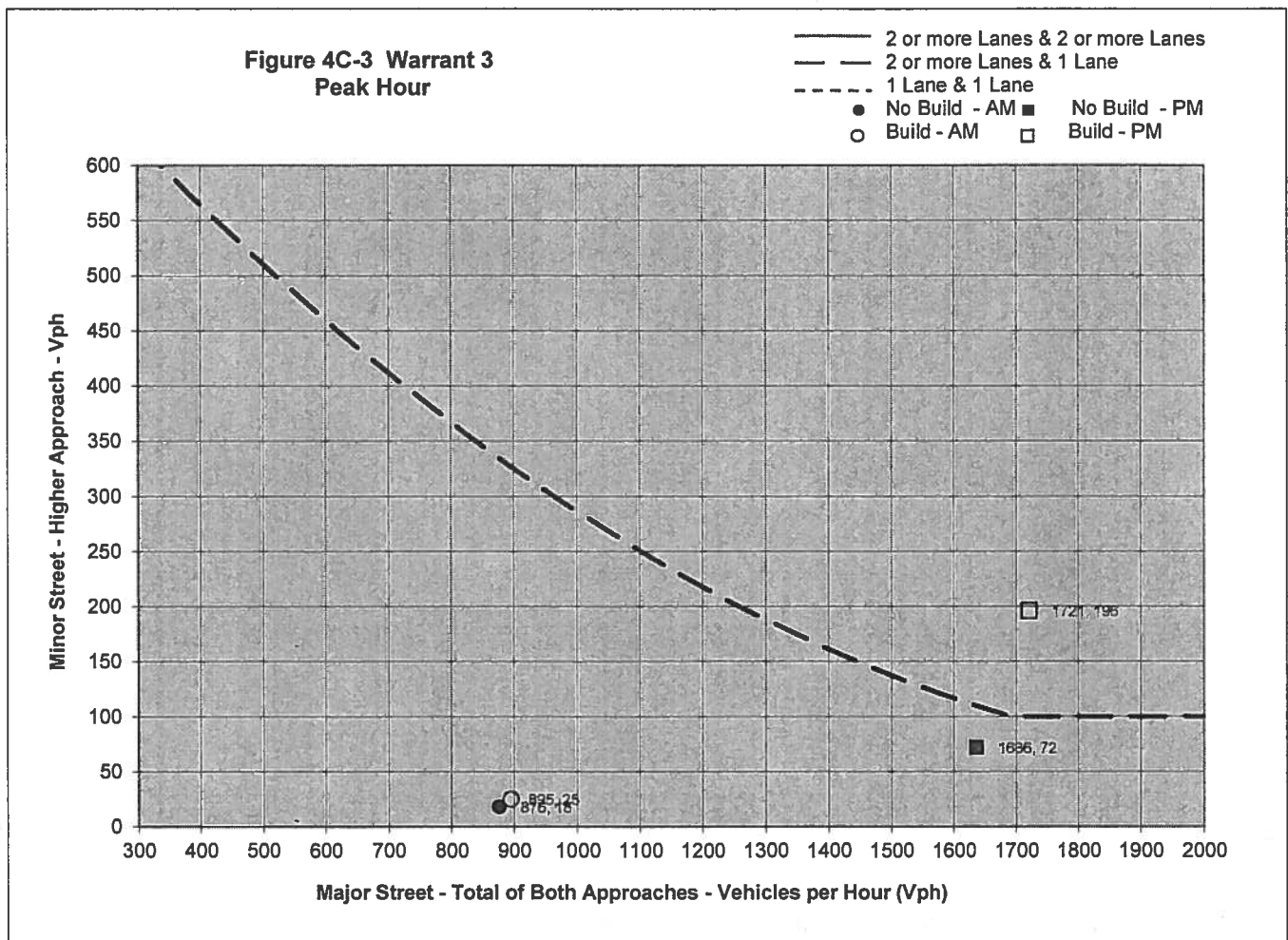
	→	↘	↙	←	↖	↗	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑	↑	↘	↑↑		↑	
Volume (veh/h)	228	31	139	118	0	25	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.75	0.75	0.75	0.75	0.85	0.85	
Hourly flow rate (vph)	304	41	185	157	0	29	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	345						
pX, platoon unblocked							
vC, conflicting volume			345		753	152	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			345		753	152	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			85		100	97	
cM capacity (veh/h)			1203		290	864	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	152	152	41	185	79	79	29
Volume Left	0	0	0	185	0	0	0
Volume Right	0	0	41	0	0	0	29
cSH	1700	1700	1700	1203	1700	1700	864
Volume to Capacity	0.09	0.09	0.02	0.15	0.05	0.05	0.03
Queue Length 95th (ft)	0	0	0	14	0	0	3
Control Delay (s)	0.0	0.0	0.0	8.5	0.0	0.0	9.3
Lane LOS				A			A
Approach Delay (s)	0.0			4.6			9.3
Approach LOS							A
Intersection Summary							
Average Delay			2.6				
Intersection Capacity Utilization			20.7%		ICU Level of Service		A
Analysis Period (min)			15				

2012 PM Peak BUILD Conditions

Existing Geometry
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Project Name		Analysis Year Traffic Volumes					
Target Commercial Dev.		AM	Major	Minor	PM	Major	Minor
Intersection		No Build	876	18	No Build	1636	72
Indian School / Q St.							
Analysis Year							
2012							
		Build	895	25	Build	1721	196
Number of Lanes							
Major St.	2						
Minor St.	1						



Comments - Signal is warranted based on projected 2012 PM Peak Hour Volumes. (50% Reduction for right turn volumes).

Traffic Count Data Sheet

Year Counts Taken: 2011 E-W Street Indian School Rd Speed Limit (Indian School Rd)= 35 MPH
 N-S Street: Louisiana Blvd Speed Limit (Louisiana Blvd)= 35 MPH
 Date of Count: 3/24/11

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	3	42	42	38	36	40	45	147	22	2	445	8
7:15 AM	7:30 AM	6	40	40	33	39	43	28	499	25	5	437	44
7:30 AM	7:45 AM	4	19	20	50	77	11	40	192	21	14	196	14
7:45 AM	8:00 AM	4	20	10	40	75	12	54	266	47	14	234	25
8:00 AM	8:15 AM	6	33	17	36	77	16	65	218	47	19	198	13
8:15 AM	8:30 AM	6	25	9	55	72	14	45	163	47	7	185	22
8:30 AM	8:45 AM	8	24	49	53	55	18	33	176	26	15	170	14
8:45 AM	9:00 AM	44	20	40	34	43	27	50	249	34	24	459	40
AM Peak Hour Volumes		20	97	56	181	301	53	204	839	162	54	813	74
% of Total Traffic		0.7%	3.4%	2.0%	6.3%	10.5%	1.9%	7.1%	29.4%	5.7%	1.9%	28.5%	2.6%
% Directional			6.1%			18.7%			42.2%			33.0%	
AM Peak Hour Factor			0.77			0.95			0.82			0.86	

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	48	56	40	75	52	44	34	394	92	44	288	43
4:15 PM	4:30 PM	23	88	42	84	64	34	29	370	83	40	274	43
4:30 PM	4:45 PM	48	72	43	59	58	53	26	331	74	54	284	7
4:45 PM	5:00 PM	24	86	52	91	58	41	29	345	80	57	296	8
5:00 PM	5:15 PM	14	80	57	86	67	43	28	348	75	48	325	13
5:15 PM	5:30 PM	47	129	53	82	67	63	17	337	62	58	329	18
5:30 PM	5:45 PM	27	84	39	64	50	37	24	410	89	55	305	51
5:45 PM	6:00 PM	49	74	28	78	55	47	44	289	85	48	266	40
PM Peak Hour Volumes		112	379	201	323	242	184	98	1440	306	218	1255	90
% of Total Traffic		2.3%	7.8%	4.1%	6.7%	5.0%	3.8%	2.0%	29.7%	6.3%	4.5%	25.9%	1.9%
% Directional			14.3%			15.4%			38.0%			32.2%	
PM Peak Hour Factor			0.76			0.88			0.88			0.95	

Traffic Count Data Sheet

Year Counts Taken: 2011 E-W Street Indian School Rd Speed Limit (Indian School Rd)= 35 MPH
 N-S Street: Uptown Loop Speed Limit (Uptown Loop)= 35 MPH
 Date of Count: 3/23/11

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	5	35	0	42	59	5	4	4	4	53	3	5
7:15 AM	7:30 AM	5	32	0	22	111	4	8	0	4	7	3	3
7:30 AM	7:45 AM	7	33	0	48	134	6	40	3	2	6	0	2
7:45 AM	8:00 AM	11	54	1	28	144	12	1	1	9	10	1	5
8:00 AM	8:15 AM	11	69	1	34	136	31	2	7	10	4	1	7
8:15 AM	8:30 AM	16	57	0	19	118	14	4	1	9	7	1	8
8:30 AM	8:45 AM	26	52	0	18	103	9	1	1	10	3	2	3
8:45 AM	9:00 AM	27	54	0	17	84	9	7	3	5	14	4	17
AM Peak Hour Volumes		64	232	2	99	501	66	8	10	38	24	5	23
% of Total Traffic		6.0%	21.6%	0.2%	9.2%	46.7%	6.2%	0.7%	0.9%	3.5%	2.2%	0.5%	2.1%
% Directional			27.8%			62.1%			5.2%			4.9%	
AM Peak Hour Factor			0.92			0.83			0.74			0.81	

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Uptown Loop)			Southbound (Uptown Loop)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	29	105	7	43	140	8	42	40	23	34	9	27
4:15 PM	4:30 PM	35	144	9	24	127	42	40	8	22	28	7	38
4:30 PM	4:45 PM	42	134	10	14	121	17	8	8	30	31	8	16
4:45 PM	5:00 PM	47	131	10	22	127	18	12	8	16	28	7	23
5:00 PM	5:15 PM	28	188	5	33	141	9	25	15	15	40	10	34
5:15 PM	5:30 PM	47	168	10	17	122	11	10	9	24	27	10	17
5:30 PM	5:45 PM	33	109	40	42	126	9	9	46	22	37	7	23
5:45 PM	6:00 PM	27	92	9	19	69	3	5	8	6	23	6	43
PM Peak Hour Volumes		164	621	35	86	511	55	55	40	85	126	35	90
% of Total Traffic		8.6%	32.6%	1.8%	4.5%	26.9%	2.9%	2.9%	2.1%	4.5%	6.6%	1.8%	4.7%
% Directional			43.1%			34.3%			9.5%			13.2%	
PM Peak Hour Factor			0.91			0.89			0.82			0.75	

Traffic Count Data Sheet

Year Counts Taken: 2011 E-W Street Indian School Rd Speed Limit (Indian School Rd)= 35 MPH
 N-S Street: Pennsylvania St Speed Limit (Pennsylvania St)= 30 MPH
 Date of Count: 3/21/11

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	43	22	44	5	30	43	44	35	4	3	44	24
7:15 AM	7:30 AM	24	45	44	9	54	42	45	44	6	5	70	25
7:30 AM	7:45 AM	10	24	18	13	95	4	19	33	7	10	66	30
7:45 AM	8:00 AM	11	30	21	27	122	13	16	35	9	9	61	32
8:00 AM	8:15 AM	18	38	21	18	67	12	24	58	16	14	60	30
8:15 AM	8:30 AM	9	49	12	32	85	9	30	41	24	14	58	40
8:30 AM	8:45 AM	42	24	44	42	50	5	44	44	18	3	54	49
8:45 AM	9:00 AM	42	29	47	45	54	6	45	46	9	8	47	49
AM Peak Hour Volumes		48	141	72	90	369	38	89	167	56	47	245	132
% of Total Traffic		3.2%	9.4%	4.8%	6.0%	24.7%	2.5%	6.0%	11.2%	3.7%	3.1%	16.4%	8.8%
% Directional			17.5%			33.3%			20.9%			28.4%	
AM Peak Hour Factor			0.85			0.77			0.80			0.95	

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Pennsylvania St)			Southbound (Pennsylvania St)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	36	94	27	43	67	7	29	76	17	42	36	28
4:15 PM	4:30 PM	33	124	33	45	90	5	45	58	25	47	53	23
4:30 PM	4:45 PM	27	103	23	43	58	14	30	67	17	43	43	17
4:45 PM	5:00 PM	39	107	35	17	85	13	28	75	20	14	59	14
5:00 PM	5:15 PM	29	132	34	20	78	12	21	89	27	13	49	25
5:15 PM	5:30 PM	42	133	44	16	80	8	20	86	26	14	62	18
5:30 PM	5:45 PM	27	104	21	21	76	6	20	63	26	8	53	24
5:45 PM	6:00 PM	23	108	27	44	67	6	47	37	43	8	46	43
PM Peak Hour Volumes		137	476	134	74	319	39	89	313	99	49	223	81
% of Total Traffic		6.7%	23.4%	6.6%	3.6%	15.7%	1.9%	4.4%	15.4%	4.9%	2.4%	11.0%	4.0%
% Directional			36.7%			21.2%			24.6%			17.4%	
PM Peak Hour Factor			0.85			0.94			0.91			0.94	

Traffic Count Data Sheet

Year Counts Taken: 2011

E-W Street Indian School Rd
N-S Street: Espanola StSpeed Limit (Indian School Rd)= 35 MPH
Speed Limit (Espanola St)= 25 MPH
Date of Count: 3/21/11

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Espanola St)			Southbound (Espanola St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	2	49	0	4	66	0	0	0	0	0	3	0
7:15 AM	7:30 AM	2	50	0	4	95	0	0	0	0	0	6	0
7:30 AM	7:45 AM	5	52	0	1	139	2	0	0	0	0	4	0
7:45 AM	8:00 AM	5	65	0	0	157	3	0	0	0	0	7	0
8:00 AM	8:15 AM	4	76	0	0	138	3	0	0	0	3	0	6
8:15 AM	8:30 AM	2	74	0	1	147	0	0	0	0	0	0	3
8:30 AM	8:45 AM	4	54	2	4	83	0	4	0	0	0	2	8
8:45 AM	9:00 AM	6	74	0	2	92	2	0	0	0	0	0	2
AM Peak Hour Volumes		16	267	0	2	581	8	0	0	0	3	11	9
% of Total Traffic		1.8%	29.8%	0.0%	0.2%	64.8%	0.9%	0.0%	0.0%	0.0%	0.3%	1.2%	1.0%
% Directional			31.5%			65.9%			0.0%			2.6%	
AM Peak Hour Factor			0.88			0.92			#DIV/0!			0.64	

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Espanola St)			Southbound (Espanola St)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	4:30 PM	44	128	2	2	429	3	4	0	6	0	4	9
4:30 PM	4:45 PM	9	162	4	2	123	2	7	4	44	4	0	3
4:45 PM	5:00 PM	45	157	4	5	420	4	2	0	2	0	0	7
5:00 PM	5:15 PM	7	167	2	3	107	0	3	1	2	1	0	6
5:15 PM	5:30 PM	12	178	11	4	139	1	4	0	8	4	0	12
5:30 PM	5:45 PM	15	221	7	3	123	0	8	0	7	3	1	12
5:45 PM	6:00 PM	16	155	2	5	121	0	1	1	3	3	0	4
PM Peak Hour Volumes		50	721	22	15	490	1	16	2	20	11	1	34
% of Total Traffic		3.6%	52.1%	1.6%	1.1%	35.4%	0.1%	1.2%	0.1%	1.4%	0.8%	0.1%	2.5%
% Directional			57.3%			36.6%			2.7%			3.3%	
PM Peak Hour Factor			0.82			0.88			0.63			0.72	

Traffic Count Data Sheet

Year Counts Taken: 2011 E-W Street Indian School Rd Speed Limit (Indian School Rd)= 35 MPH
 N-S Street: Q Street Speed Limit (Q Street)= 25 MPH
 Date of Count: 3/28/11

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q Street)			Southbound (Q Street)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	6	30	0	0	84	0	0	0	0	4	0	4
7:15 AM	7:30 AM	7	33	0	0	85	3	0	0	0	0	0	2
7:30 AM	7:45 AM	12	42	0	0	138	2	0	0	0	4	0	2
7:45 AM	8:00 AM	23	69	0	0	127	3	0	0	0	1	0	3
8:00 AM	8:15 AM	13	80	0	0	129	1	0	0	0	0	0	7
8:15 AM	8:30 AM	15	79	0	0	141	3	0	0	0	1	0	6
8:30 AM	8:45 AM	10	54	0	0	126	3	0	0	0	0	0	15
8:45 AM	9:00 AM	0	64	0	0	104	0	0	0	0	0	0	0
AM Peak Hour Volumes		61	282	0	0	523	10	0	0	0	2	0	31
% of Total Traffic		6.7%	31.0%	0.0%	0.0%	57.5%	1.1%	0.0%	0.0%	0.0%	0.2%	0.0%	3.4%
% Directional			37.7%			58.6%			0.0%			3.6%	
AM Peak Hour Factor			0.91			0.93			#DIV/0!			0.55	

Begin Time	End Time	Eastbound (Indian School Rd)			Westbound (Indian School Rd)			Northbound (Q Street)			Southbound (Q Street)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	164	0	0	174	0	0	0	0	0	0	0
4:15 PM	4:30 PM	41	143	0	0	179	9	0	0	0	8	0	13
4:30 PM	4:45 PM	23	130	0	0	170	12	0	0	0	5	0	23
4:45 PM	5:00 PM	10	164	0	0	190	42	0	0	0	3	0	42
5:00 PM	5:15 PM	16	152	0	0	196	20	0	0	0	7	0	18
5:15 PM	5:30 PM	23	186	0	0	212	12	0	0	0	3	0	20
5:30 PM	5:45 PM	23	201	0	0	151	12	0	0	0	6	0	25
5:45 PM	6:00 PM	0	166	0	0	180	0	0	0	0	0	0	0
PM Peak Hour Volumes		72	703	0	0	749	86	0	0	0	19	0	105
% of Total Traffic		4.2%	40.5%	0.0%	0.0%	43.2%	5.0%	0.0%	0.0%	0.0%	1.1%	0.0%	6.1%
% Directional			44.7%			48.2%			0.0%			7.2%	
PM Peak Hour Factor			0.86			0.90			#DIV/0!			0.69	

Traffic Count Data Sheet

Year Counts Taken: 2011

 E-W Street America's Pkwy
 N-S Street: Louisiana Blvd

 Speed Limit (America's Pkwy)= 25 MPH
 Speed Limit (Louisiana Blvd)= 35 MPH
 Date of Count: 3/23/11

Begin Time	End Time	Eastbound (America's Pkwy)			Westbound (America's Pkwy)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	3	4	22	6	4	0	37	199	7	0	129	2
7:15 AM	7:30 AM	3	4	20	7	0	0	39	259	10	2	210	2
7:30 AM	7:45 AM	3	0	35	9	1	0	60	250	10	0	272	5
7:45 AM	8:00 AM	5	2	39	11	1	0	66	320	10	0	279	7
8:00 AM	8:15 AM	6	1	33	11	1	0	95	327	20	1	214	23
8:15 AM	8:30 AM	6	2	25	11	1	0	63	289	13	1	224	4
8:30 AM	8:45 AM	4	0	24	8	4	0	54	269	15	0	230	2
8:45 AM	9:00 AM	7	0	20	10	0	0	56	340	8	10	197	2
AM Peak Hour Volumes		20	5	132	42	4	0	284	1186	53	2	989	39
% of Total Traffic		0.7%	0.2%	4.8%	1.5%	0.1%	0.0%	10.3%	43.0%	1.9%	0.1%	35.9%	1.4%
% Directional			5.7%			1.7%			55.3%			37.4%	
AM Peak Hour Factor			0.85			0.96			0.86			0.90	

Begin Time	End Time	Eastbound (America's Pkwy)			Westbound (America's Pkwy)			Northbound (Louisiana Blvd)			Southbound (Louisiana Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	11	5	63	23	3	0	39	444	25	9	420	5
4:15 PM	4:30 PM	9	5	33	17	4	0	37	423	29	5	374	5
4:30 PM	4:45 PM	9	4	56	21	1	0	25	416	35	6	430	6
4:45 PM	5:00 PM	2	6	61	13	1	0	39	428	26	4	337	8
5:00 PM	5:15 PM	11	2	90	32	0	1	32	379	33	6	432	3
5:15 PM	5:30 PM	9	4	63	17	1	2	39	454	38	3	397	11
5:30 PM	5:45 PM	6	4	47	24	2	4	43	418	36	6	374	7
5:45 PM	6:00 PM	9	4	50	8	2	2	38	345	25	7	392	8
PM Peak Hour Volumes		31	16	270	83	3	3	135	1677	132	19	1596	28
% of Total Traffic		0.8%	0.4%	6.8%	2.1%	0.1%	0.1%	3.4%	42.0%	3.3%	0.5%	40.0%	0.7%
% Directional			7.9%			2.2%			48.7%			41.1%	
PM Peak Hour Factor			0.77			0.67			0.92			0.93	

E-W Street Uptown Loop
N-S Street: Romano's drive

Speed Limit (Uptown Loop)=	25	MPH
Speed Limit (Romano's drive)=	25	MPH
Date of Count:	3/30/11	

Begin Time	End Time	Eastbound (Uptown Loop)				Westbound (Uptown Loop)				Northbound (Romano's drive)				Southbound (Romano's drive)			
		L	T	R		L	T	R		L	T	R		L	T	R	
4:00 PM	4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0	
4:15 PM	4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0	
4:30 PM	4:45 PM	0	45	7		9	22	0		0	0	5		0	0	0	
4:45 PM	5:00 PM	0	36	5		12	14	0		0	0	4		0	0	0	
5:00 PM	5:15 PM	0	41	5		14	33	0		0	0	7		0	0	0	
5:15 PM	5:30 PM	0	45	14		21	20	0		0	0	6		0	0	0	
5:30 PM	5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0	
5:45 PM	6:00 PM	0	0	0		0	0	0		0	0	0		0	0	0	
PM Peak Hour Volumes		0	167	31		56	89	0		0	0	22		0	0	0	0
% of Total Traffic		0.0%	45.8%	8.5%		15.3%	24.4%	0.0%		0.0%	0.0%	6.0%		0.0%	0.0%	0.0%	0.0%
% Directional			54.2%				39.7%				6.0%				0.0%		#DIV/0!
PM Peak Hour Factor			0.84				0.77				0.79						

Route 3/157 - Weekday Northbound[illegible]**Route 3/157 - Weekday Southbound**[illegible]

Intersection Data SheetIntersection: **Indian School Rd / Louisiana Blvd**Posted Speed Limit (E-W Street): 35Date: 3/17/2011**Eastbound Approach:****Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1	stripes	1	1	

Length: 80'
turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	N

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes

Westbound Approach:**Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		1	1	

Length: 140'
turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Posted Speed Limit (N-S Street): 35**Northbound Approach:****Louisiana Blvd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		4		1

Length: 140'
turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	N

Length: 120'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes

Southbound Approach:**Louisiana Blvd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		3		1

Length: 120'
turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	N

Length: 220'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes

Intersection Data SheetIntersection: **Indian School Rd / Uptown Loop**Posted Speed Limit (E-W Street): 35Date: 3/17/2011**Eastbound Approach:****Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1	stripes	2		1

Length: 140'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 60'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Westbound Approach:**Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1	stripes	1	1	

Length: 385'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Posted Speed Limit (N-S Street): 35**Northbound Approach:****Uptown Loop**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1	1	

Length: 200'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Southbound Approach:**Uptown Loop**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		2		1

Length: 120'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 100'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Intersection Data SheetIntersection: **Indian School Rd / Pennsylvania St**Posted Speed Limit (E-W Street): 35Date: 3/17/2011**Eastbound Approach:****Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1		1

Length: 100'
turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 160'
add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Westbound Approach:**Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1	1	

Length: 160'
turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:
add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Posted Speed Limit (N-S Street): 30**Northbound Approach:****Pennsylvania St**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1		1

Length: 120'
turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 120'
add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Southbound Approach:**Pennsylvania St**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1		1

Length: 60'
turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 60'
add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Intersection Data SheetIntersection: **Indian School Rd / Espanola St**Posted Speed Limit (E-W Street): 35Date: 3/17/2011**Eastbound Approach: Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1	1	

Length: 60'
turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
NO SIGNAL		

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Westbound Approach: Indian School Rd

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		1	1	

Length: 100'
turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Posted Speed Limit (N-S Street): 25**Northbound Approach: Espanola St**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
		1+		

Length:
turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
NO SIGNAL		

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Southbound Approach: Espanola St

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
		1+		

Length:
turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Intersection Data SheetIntersection: **Indian School Rd / Q Street**Posted Speed Limit (E-W Street): 35Date: 3/17/2011**Eastbound Approach: Indian School Rd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1	stripes	2		

Length: 50'

turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
NO SIGNAL		

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Westbound Approach: Indian School Rd

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
		1	1	

Length:

turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Posted Speed Limit (N-S Street): 25**Northbound Approach: Q Street**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
		N/A		

Length:

turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
NO SIGNAL		

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Southbound Approach: Q Street

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
		L/R		

Length:

turn on green arrow
only? (Yes/No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?

Length:

add lane? (Y/N)

Is there a right turn slip lane that by-passes the traffic signal?

Yes/No

Intersection Data SheetIntersection: **Am.Pkwy/Uptown Lp / Louisiana Blvd**Posted Speed Limit (E-W Street): 25Date: 3/17/2011**Eastbound Approach: Am.Pkwy/Uptown Lp**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
1		2		1

Length: 60'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 60'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Westbound Approach: Am.Pkwy/Uptown Lp

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		2		1

Length: 300'

turn on green arrow
only? (No)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length: 300'

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Posted Speed Limit (N-S Street): 35**Northbound Approach: Louisiana Blvd**

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		3	1	

Length: 120'

turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No

Southbound Approach: Louisiana Blvd

# Left Turn Lanes	# Thru/Left Lanes	# Thru Lanes	# Thru/Right Lanes	# Right Turn Lanes
2		3	1	

Length: 150'

turn on green arrow
only? (Yes)

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Length:

add lane? (N)

Is there a right turn slip lane that by-passes the traffic signal?

No