APPENDIX L

Design Year (2039) I-75 Ramp Terminal Intersection HCS Analysis
Summary Sheets

ALTERNATIVE 1

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJC	Intersection	WB OFF @ SR 29
Agency/Co.	AIM ENGR	Jurisdiction	
Date Performed	3/21/2012	Analysis Year	2039 NO-BUILD
Analysis Time Period	AM		

Project Description

East/West Street: I-75 WB OFF Ramp	North/South Street: SR 29
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	390	461			384	
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	410	485	0	0	404	0
Percent Heavy Vehicles	22	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	0	1	0
Configuration	L	T			T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				40		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	0	0	42	0	0
Percent Heavy Vehicles	0	0	0	6	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	0
Configuration				L		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L		L					
v (veh/h)	410		42					
C (m) (veh/h)	1054		60					
v/c	0.39		0.70					
95% queue length	1.87		3.00					
Control Delay (s/veh)	10.6		150.7					
LOS	B		F					
Approach Delay (s/veh)	--	--	150.7					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJC	Intersection	I-75 EB OFF@ SR 29
Agency/Co.	AIM ENGR	Jurisdiction	
Date Performed	2/21/2012	Analysis Year	2039 NO-BUILD
Analysis Time Period	AM		

Project Description

East/West Street: I-75 Ramps	North/South Street: SR 29
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		465		288	136	
Peak-Hour Factor, PHF	0.95	0.95	1.00	0.95	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	0	489	0	303	143	0
Percent Heavy Vehicles	6	--	--	22	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration		T		L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	386					
Peak-Hour Factor, PHF	0.95	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	406	0	0	0	0	0
Percent Heavy Vehicles	6	0	0	6	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	0	0	0	0
Configuration	L					

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				L		
v (veh/h)		303				406		
C (m) (veh/h)		978				131		
v/c		0.31				3.10		
95% queue length		1.33				38.35		
Control Delay (s/veh)		10.3				1016		
LOS		B				F		
Approach Delay (s/veh)	--	--				1016		
Approach LOS	--	--				F		

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*I-75 WB Off Ramp & CR 951*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/15/2012*	Jurisdiction	
Time Period	*AM*	Analysis Year	*2039 No Build*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*		*2*		*4*			*4*	*1*
Lane Group				*L*		*R*		*T*			*T*	*R*
Volume (vph)				*205*		*103*		*3424*			*2598*	*962*
% Heavy Vehicles				*6*		*6*		*4*			*4*	*4*
PHF				*0.95*		*0.95*		*0.95*			*0.95*	*0.95*
Pretimed/Actuated (P/A)				*A*		*A*		*A*			*A*	*A*
Startup Lost Time				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Extension of Effective Green				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Arrival Type				*3*		*3*		*4*			*4*	*3*
Unit Extension				*3.0*		*3.0*		*3.0*			*3.0*	*3.0*
Ped/Bike/RTOR Volume				*0*	*0*	*0*	*0*	*0*		*0*	*0*	*962*
Lane Width				*12.0*		*12.0*		*12.0*			*12.0*	*12.0*
Parking/Grade/Parking				*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*		*0*		*0*			*0*	*0*
Minimum Pedestrian Time					*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	Thru & RT	06	07	08
Timing	G = *23.0*	G =	G =	G =	G = *59.5*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *92.5*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*216*		*108*		*3604*			*2735*	*0*
Lane Group Capacity				*822*		*671*		*4268*			*4268*	*999*
v/c Ratio				*0.26*		*0.16*		*0.84*			*0.64*	*0.00*
Green Ratio				*0.25*		*0.25*		*0.64*			*0.64*	*0.64*
Uniform Delay d_1				*27.9*		*27.2*		*12.9*			*10.0*	*5.9*
Delay Factor k				*0.11*		*0.11*		*0.38*			*0.22*	*0.11*
Incremental Delay d_2				*0.2*		*0.1*		*0.2*			*0.3*	*0.0*
PF Factor				*1.000*		*1.000*		*0.459*			*0.459*	*1.000*
Control Delay				*28.1*		*27.3*		*6.1*			*4.9*	*5.9*
Lane Group LOS				*C*		*C*		*A*			*A*	*A*
Approach Delay				*27.8*			*6.1*			*4.9*		
Approach LOS				*C*			*A*			*A*		
Intersection Delay	*6.7*			Intersection LOS						*A*		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	I-75 & CR 951-SB OFF-RAMP
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/15/2012	Jurisdiction	
Time Period	AM	Analysis Year	2039 No Build

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	3		3					5	1	2	4	
Lane Group	L		R					T	R	L	T	
Volume (vph)	756		1537					4625	161	81	2722	
% Heavy Vehicles	6		6					4	4	4	4	
PHF	0.97		0.97					0.97	0.97	0.97	0.97	
Pretimed/Actuated (P/A)	A		A					A	A	A	A	
Startup Lost Time	2.0		2.0					2.0	2.0	2.0	2.0	
Extension of Effective Green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival Type	4		4					4	4	4	4	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0				0	0	40	0	0	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N				N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0		0					0	0	0	0	
Minimum Pedestrian Time		3.2						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	SB Only	08
Timing	G = 41.0	G =	G =	G =	G = 30.0	G = 85.0	G = 11.0	G =
	Y = 5	Y =	Y =	Y =	Y = 4	Y = 4	Y = 5	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 185.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	779		1585					4768	125	84	2806	
Lane Group Capacity	1028		1906					5335	1385	200	3586	
v/c Ratio	0.76		0.83					0.89	0.09	0.42	0.78	
Green Ratio	0.22		0.41					0.64	0.89	0.06	0.54	
Uniform Delay d_1	67.4		48.8					27.7	1.2	83.9	33.8	
Delay Factor k	0.31		0.37					0.42	0.11	0.11	0.33	
Incremental Delay d_2	3.3		3.3					0.2	0.0	1.2	1.0	
PF Factor	1.000		0.883					0.459	0.532	1.000	0.699	
Control Delay	70.7		46.3					12.9	0.6	85.1	24.7	
Lane Group LOS	E		D					B	A	F	C	
Approach Delay	54.4						12.6			26.4		
Approach LOS	D						B			C		
Intersection Delay	26.3			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	*MMA*	Intersection	*GGP & I-75 - NB OFF-RAM*
Agency or Co.	*AIM ENGINEERING*	Area Type	*All other areas*
Date Performed	*03/15/2012*	Jurisdiction	
Time Period	*AM*	Analysis Year	*2019 NO-BUILD*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		3			3		2		1			
Lane Group		T			T		L		R			
Volume (vph)		1865			1602		618		21			
% Heavy Vehicles		4			4		6		6			
PHF		0.95			0.95		0.95		0.95			
Pretimed/Actuated (P/A)		A			A		A		A			
Startup Lost Time		2.0			2.0		2.0		2.0			
Extension of Effective Green		2.0			2.0		2.0		2.0			
Arrival Type		4			4		3		3			
Unit Extension		3.0			3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0		0	0		0	0	21			
Lane Width		12.0			12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N			
Parking/Hour												
Bus Stops/Hour		0			0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2				

Phasing	Thru Only	02	03	04	NB Only	06	07	08
Timing	G = 85.0	G =	G =	G =	G = 35.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *130.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1963			1686		651		0			
Lane Group Capacity		3254			3254		890		410			
v/c Ratio		0.60			0.52		0.73		0.00			
Green Ratio		0.65			0.65		0.27		0.27			
Uniform Delay d_1		12.9			11.8		43.2		34.7			
Delay Factor k		0.19			0.12		0.29		0.11			
Incremental Delay d_2		0.3			0.1		3.1		0.0			
PF Factor		0.426			0.426		1.000		1.000			
Control Delay		5.8			5.2		46.3		34.7			
Lane Group LOS		A			A		D		C			
Approach Delay	5.8			5.2			46.3					
Approach LOS	A			A			D					
Intersection Delay	11.7			Intersection LOS						B		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	GGP & I75 SB OFF
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/04/2012	Jurisdiction	
Time Period	AM	Analysis Year	2039 No Build

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		4	1	1	3					2		2
Lane Group		T	R	L	T					L		R
Volume (vph)		1695	486	16	2204					852		1518
% Heavy Vehicles		4	4	4	4					6		6
PHF		0.97	0.97	0.97	0.97					0.97		0.97
Pretimed/Actuated (P/A)		A	A	A	A					A		A
Startup Lost Time		2.0	2.0	2.0	2.0					2.0		2.0
Extension of Effective Green		2.0	2.0	2.0	2.0					2.0		2.0
Arrival Type		4	3	3	4					3		3
Unit Extension		3.0	3.0	3.0	3.0					3.0		3.0
Ped/Bike/RTOR Volume	0	0	486	0	0					0	0	84
Lane Width		12.0	12.0	12.0	12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N				N	0	N
Parking/Hour												
Bus Stops/Hour		0	0	0	0					0		0
Minimum Pedestrian Time		3.2			3.2						3.2	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 8.0	G = 42.5	G =	G =	G = 65.5	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1747	0	16	2272					878		1478
Lane Group Capacity		2169	508	107	2087					1666		1359
v/c Ratio		0.81	0.00	0.15	1.09					0.53		1.09
Green Ratio		0.33	0.33	0.06	0.42					0.50		0.50
Uniform Delay d_1		40.0	29.4	57.8	37.8					21.8		32.3
Delay Factor k		0.35	0.11	0.11	0.50					0.13		0.50
Incremental Delay d_2		2.3	0.0	0.6	48.6					0.3		51.9
PF Factor		0.964	1.000	1.000	0.873					1.000		1.000
Control Delay		40.9	29.4	58.4	81.6					22.1		84.1
Lane Group LOS		D	C	E	F					C		F
Approach Delay	40.9			81.4						61.0		
Approach LOS	D			F						E		
Intersection Delay	62.8			Intersection LOS						E		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AJC*
Agency/Co.	*AIM ENGR*
Date Performed	*2/21/2012*
Analysis Time Period	*PM*

Site Information

Intersection	*I-75 WB OFF @ SR 29*
Jurisdiction	
Analysis Year	*2039 NO-BUILD*

Project Description

East/West Street: *I-75 WB OFF Ramp* | North/South Street: *SR 29*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*307*	*588*			*441*	
Peak-Hour Factor, PHF	*0.95*	*0.95*	*1.00*	*1.00*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*323*	*618*	*0*	*0*	*464*	*0*
Percent Heavy Vehicles	*22*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*			*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*31*		
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*32*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*6*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*0*
Configuration				*L*		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*L*					
v (veh/h)	*323*		*32*					
C (m) (veh/h)	*1000*		*64*					
v/c	*0.32*		*0.50*					
95% queue length	*1.41*		*2.00*					
Control Delay (s/veh)	*10.3*		*107.8*					
LOS	*B*		*F*					
Approach Delay (s/veh)	--	--	*107.8*					
Approach LOS	--	--	*F*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJC	Intersection	I-75 EB OFF@ SR 29
Agency/Co.	AIM ENGR	Jurisdiction	
Date Performed	2/21/2012	Analysis Year	2039 NO-BUILD
Analysis Time Period	PM		

Project Description

East/West Street: I-75 Ramps	North/South Street: SR 29
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		403		366	106	
Peak-Hour Factor, PHF	0.95	0.95	1.00	0.95	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	0	424	0	385	111	0
Percent Heavy Vehicles	6	--	--	22	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration		T		L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	492					
Peak-Hour Factor, PHF	0.95	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	517	0	0	0	0	0
Percent Heavy Vehicles	6	0	0	6	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	0	0	0	0
Configuration	L					

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				L		
v (veh/h)		385				517		
C (m) (veh/h)		1036				109		
v/c		0.37				4.74		
95% queue length		1.74				54.55		
Control Delay (s/veh)		10.5				1763		
LOS		B				F		
Approach Delay (s/veh)	--	--	1763					
Approach LOS	--	--	F					

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*I-75 WB Off Ramp & CR 951*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/15/2012*	Jurisdiction	
Time Period	*PM*	Analysis Year	*2039 No Build*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*		*2*		*4*			*4*	*1*
Lane Group				*L*		*R*		*T*			*T*	*R*
Volume (vph)				*161*		*81*		*3479*			*2771*	*756*
% Heavy Vehicles				*6*		*6*		*3*			*3*	*3*
PHF				*0.95*		*0.95*		*0.95*			*0.95*	*0.95*
Pretimed/Actuated (P/A)				*A*		*A*		*A*			*A*	*A*
Startup Lost Time				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Extension of Effective Green				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Arrival Type				*4*		*3*		*4*			*3*	*3*
Unit Extension				*3.0*		*3.0*		*3.0*			*3.0*	*3.0*
Ped/Bike/RTOR Volume				*0*	*0*	*0*	*0*	*0*		*0*	*0*	*756*
Lane Width				*12.0*		*12.0*		*12.0*			*12.0*	*12.0*
Parking/Grade/Parking				*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*		*0*		*0*			*0*	*0*
Minimum Pedestrian Time					*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	Thru & RT	06	07	08
Timing	G = *25.0*	G =	G =	G =	G = *57.5*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* Cycle Length C = *92.5*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*169*		*85*		*3662*			*2917*	*0*
Lane Group Capacity				*894*		*729*		*4165*			*4165*	*975*
v/c Ratio				*0.19*		*0.12*		*0.88*			*0.70*	*0.00*
Green Ratio				*0.27*		*0.27*		*0.62*			*0.62*	*0.62*
Uniform Delay d_1				*26.0*		*25.4*		*14.6*			*11.7*	*6.6*
Delay Factor k				*0.11*		*0.11*		*0.41*			*0.27*	*0.11*
Incremental Delay d_2				*0.1*		*0.1*		*0.2*			*0.5*	*0.0*
PF Factor				*1.000*		*1.000*		*0.520*			*1.000*	*1.000*
Control Delay				*26.1*		*25.5*		*7.8*			*12.2*	*6.6*
Lane Group LOS				*C*		*C*		*A*			*B*	*A*
Approach Delay				*25.9*			*7.8*			*12.2*		
Approach LOS				*C*			*A*			*B*		
Intersection Delay	*10.4*			Intersection LOS						*B*		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	I-75 & CR 951 - SB OFF-RAMP
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/15/2012	Jurisdiction	
Time Period	PM	Analysis Year	2039 No Build

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	3		3					5	1	2	4	
Lane Group	L		R					T	R	L	T	
Volume (vph)	962		1957					4054	205	103	2829	
% Heavy Vehicles	6		6					3	3	3	3	
PHF	0.97		0.97					0.97	0.97	0.97	0.97	
Pretimed/Actuated (P/A)	A		A					A	A	A	A	
Startup Lost Time	2.0		2.0					2.0	2.0	2.0	2.0	
Extension of Effective Green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival Type	4		4					4	4	4	4	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0				0	0	40	0	0	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N				N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0		0					0	0	0	0	
Minimum Pedestrian Time		3.2						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	SB Only	08
Timing	G = 51.0	G =	G =	G =	G = 28.0	G = 70.5	G = 17.5	G =
	Y = 5	Y =	Y =	Y =	Y = 4	Y = 4	Y = 5	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 185.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	992		2018					4179	170	106	2916	
Lane Group Capacity	1279		2106					4640	1343	322	3332	
v/c Ratio	0.78		0.96					0.90	0.13	0.33	0.88	
Green Ratio	0.28		0.45					0.55	0.86	0.09	0.50	
Uniform Delay d_1	61.7		48.8					36.7	2.1	78.3	41.4	
Delay Factor k	0.32		0.47					0.42	0.11	0.11	0.40	
Incremental Delay d_2	3.1		11.4					0.3	0.0	0.4	1.9	
PF Factor	1.000		0.831					0.674	0.401	1.000	0.771	
Control Delay	64.8		52.0					25.0	0.9	78.7	33.8	
Lane Group LOS	E		D					C	A	E	C	
Approach Delay	56.2						24.1			35.4		
Approach LOS	E						C			D		
Intersection Delay	36.7			Intersection LOS						D		

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*GGP & I-75*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/15/2012*	Jurisdiction	
Time Period	*PM*	Analysis Year	*2039 No Build*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*3*			*3*		*2*		*1*			
Lane Group		*T*			*T*		*L*		*R*			
Volume (vph)		*2671*			*1034*		*486*		*16*			
% Heavy Vehicles		*3*			*3*		*6*		*6*			
PHF		*0.95*			*0.95*		*0.95*		*0.95*			
Pretimed/Actuated (P/A)		*A*			*A*		*A*		*A*			
Startup Lost Time		*2.0*			*2.0*		*2.0*		*2.0*			
Extension of Effective Green		*2.0*			*2.0*		*2.0*		*2.0*			
Arrival Type		*4*			*4*		*3*		*3*			
Unit Extension		*3.0*			*3.0*		*3.0*		*3.0*			
Ped/Bike/RTOR Volume	*0*	*0*		*0*	*0*		*0*	*0*	*16*			
Lane Width		*12.0*			*12.0*		*12.0*		*12.0*			
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*			
Parking/Hour												
Bus Stops/Hour		*0*			*0*		*0*		*0*			
Minimum Pedestrian Time		*3.2*			*3.2*			*3.2*				

Phasing	Thru Only	02	03	04	NB Only	06	07	08
Timing	G = *85.0*	G =	G =	G =	G = *35.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *130.0*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*2812*			*1088*		*512*		*0*			
Lane Group Capacity		*3286*			*3286*		*890*		*410*			
v/c Ratio		*0.86*			*0.33*		*0.58*		*0.00*			
Green Ratio		*0.65*			*0.65*		*0.27*		*0.27*			
Uniform Delay d_1		*17.7*			*9.9*		*41.1*		*34.7*			
Delay Factor k		*0.39*			*0.11*		*0.17*		*0.11*			
Incremental Delay d_2		*2.4*			*0.1*		*0.9*		*0.0*			
PF Factor		*0.426*			*0.426*		*1.000*		*1.000*			
Control Delay		*10.0*			*4.3*		*42.0*		*34.7*			
Lane Group LOS		*A*			*A*		*D*		*C*			
Approach Delay	*10.0*			*4.3*			*42.0*					
Approach LOS	*A*			*A*			*D*					
Intersection Delay	*12.3*			Intersection LOS			*B*					

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*GGP & I75*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/15/2012*	Jurisdiction	
Time Period	*PM*	Analysis Year	*2039 No Build*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*1*	*3*					*2*		*2*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*3104*	*618*	*21*	*1499*					*1085*		*682*
% Heavy Vehicles		*3*	*3*	*3*	*3*					*6*		*6*
PHF		*0.95*	*0.95*	*0.95*	*0.95*					*0.95*		*0.95*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*4*	*3*	*3*	*4*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*618*	*0*	*0*					*0*	*0*	*56*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*				*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*						*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *10.0*	G = *62.5*	G =	G =	G = *43.5*	G =	G =	G =
	Y = *4*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *130.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*3267*	*0*	*22*	*1578*					*1142*		*659*
Lane Group Capacity		*3221*	*754*	*135*	*2957*					*1107*		*902*
v/c Ratio		*1.01*	*0.00*	*0.16*	*0.53*					*1.03*		*0.73*
Green Ratio		*0.48*	*0.48*	*0.08*	*0.59*					*0.33*		*0.33*
Uniform Delay d_1		*33.8*	*17.5*	*56.1*	*16.0*					*43.3*		*38.1*
Delay Factor k		*0.50*	*0.11*	*0.11*	*0.14*					*0.50*		*0.29*
Incremental Delay d_2		*19.5*	*0.0*	*0.5*	*0.2*					*35.5*		*3.1*
PF Factor		*0.795*	*1.000*	*1.000*	*0.602*					*1.000*		*1.000*
Control Delay		*46.3*	*17.5*	*56.5*	*9.8*					*78.7*		*41.1*
Lane Group LOS		*D*	*B*	*E*	*A*					*E*		*D*
Approach Delay	*46.3*			*10.5*						*65.0*		
Approach LOS	*D*			*B*						*E*		
Intersection Delay	*42.8*			Intersection LOS						*D*		

ALTERNATIVE 3A

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AJC*
Agency/Co.	*AIM ENGR*
Date Performed	*3/21/2012*
Analysis Time Period	*AM*

Site Information

Intersection	*WB OFF @ SR 29*
Jurisdiction	
Analysis Year	*2039 GREEN*

Project Description

East/West Street: *I-75 WB OFF Ramp*

North/South Street: *SR 29*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*394*	*412*			*368*	
Peak-Hour Factor, PHF	*0.95*	*0.95*	*1.00*	*1.00*	*0.95*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*414*	*433*	*0*	*0*	*387*	*0*
Percent Heavy Vehicles	*22*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*			*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*40*		
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.95*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*42*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*6*	*0*	*0*
Percent Grade (%)	*0*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*0*
Configuration				*L*		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*		*L*					
v (veh/h)	*414*		*42*					
C (m) (veh/h)	*1070*		*66*					
v/c	*0.39*		*0.64*					
95% queue length	*1.85*		*2.74*					
Control Delay (s/veh)	*10.5*		*127.1*					
LOS	*B*		*F*					
Approach Delay (s/veh)	--	--	*127.1*					
Approach LOS	--	--	*F*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	AJC	Intersection	I-75 EB OFF@ SR 29
Agency/Co.	AIM ENGR	Jurisdiction	
Date Performed	2/21/2012	Analysis Year	2039 GREEN
Analysis Time Period	AM		

Project Description

East/West Street: I-75 Ramps	North/South Street: SR 29
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		465		275	133	
Peak-Hour Factor, PHF	0.95	0.95	1.00	0.95	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	0	489	0	289	140	0
Percent Heavy Vehicles	6	--	--	22	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration		T		L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	341					
Peak-Hour Factor, PHF	0.95	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	358	0	0	0	0	0
Percent Heavy Vehicles	6	0	0	6	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	0	0	0	0
Configuration	L					

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				L		
v (veh/h)		289				358		
C (m) (veh/h)		978				140		
v/c		0.30				2.56		
95% queue length		1.24				31.51		
Control Delay (s/veh)		10.2				771.4		
LOS		B				F		
Approach Delay (s/veh)	--	--				771.4		
Approach LOS	--	--				F		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	I-75 WB Off Ramp & CR 951
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/14/2012	Jurisdiction	
Time Period	AM	Analysis Year	2039 Green

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				2		2		4			4	1
Lane Group				L		R		T			T	R
Volume (vph)				184		116		3440			2642	959
% Heavy Vehicles				6		6		4			4	4
PHF				0.95		0.95		0.95			0.95	0.95
Pretimed/Actuated (P/A)				A		A		A			A	A
Startup Lost Time				2.0		2.0		2.0			2.0	2.0
Extension of Effective Green				2.0		2.0		2.0			2.0	2.0
Arrival Type				3		3		4			4	3
Unit Extension				3.0		3.0		3.0			3.0	3.0
Ped/Bike/RTOR Volume				0	0	0	0	0		0	0	959
Lane Width				12.0		12.0		12.0			12.0	12.0
Parking/Grade/Parking				N	0	N	N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour				0		0		0			0	0
Minimum Pedestrian Time					3.2			3.2			3.2	

Phasing	WB Only	02	03	04	Thru & RT	06	07	08
Timing	G = 23.0	G =	G =	G =	G = 59.5	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 92.5		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				194		122		3621			2781	0
Lane Group Capacity				822		671		4268			4268	999
v/c Ratio				0.24		0.18		0.85			0.65	0.00
Green Ratio				0.25		0.25		0.64			0.64	0.64
Uniform Delay d_1				27.7		27.3		13.0			10.1	5.9
Delay Factor k				0.11		0.11		0.38			0.23	0.11
Incremental Delay d_2				0.1		0.1		0.2			0.4	0.0
PF Factor				1.000		1.000		0.459			0.459	1.000
Control Delay				27.9		27.5		6.1			5.0	5.9
Lane Group LOS				C		C		A			A	A
Approach Delay				27.7			6.1			5.0		
Approach LOS				C			A			A		
Intersection Delay	6.7			Intersection LOS						A		

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*I-75 & CR 951*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/14/2012*	Jurisdiction	
Time Period	*AM*	Analysis Year	*2039 Green*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	*3*		*3*					*5*	*1*	*2*	*4*	
Lane Group	*L*		*R*					*T*	*R*	*L*	*T*	
Volume (vph)	*753*		*1540*					*4647*	*145*	*91*	*2735*	
% Heavy Vehicles	*6*		*6*					*4*	*4*	*4*	*4*	
PHF	*0.97*		*0.97*					*0.97*	*0.97*	*0.97*	*0.97*	
Pretimed/Actuated (P/A)	*A*		*A*					*A*	*A*	*A*	*A*	
Startup Lost Time	*2.0*		*2.0*					*2.0*	*2.0*	*2.0*	*2.0*	
Extension of Effective Green	*2.0*		*2.0*					*2.0*	*2.0*	*2.0*	*2.0*	
Arrival Type	*4*		*4*					*4*	*4*	*4*	*4*	
Unit Extension	*3.0*		*3.0*					*3.0*	*3.0*	*3.0*	*3.0*	
Ped/Bike/RTOR Volume	*0*	*0*	*0*				*0*	*0*	*40*	*0*	*0*	
Lane Width	*12.0*		*12.0*					*12.0*	*12.0*	*12.0*	*12.0*	
Parking/Grade/Parking	*N*	*0*	*N*				*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour	*0*		*0*					*0*	*0*	*0*	*0*	
Minimum Pedestrian Time		*3.2*						*3.2*			*3.2*	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	SB Only	08
Timing	G = *41.0*	G =	G =	G =	G = *30.0*	G = *85.0*	G = *11.0*	G =
	Y = *5*	Y =	Y =	Y =	Y = *4*	Y = *4*	Y = *5*	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *185.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	*776*		*1588*					*4791*	*108*	*94*	*2820*	
Lane Group Capacity	*1028*		*1906*					*5335*	*1385*	*200*	*3586*	
v/c Ratio	*0.75*		*0.83*					*0.90*	*0.08*	*0.47*	*0.79*	
Green Ratio	*0.22*		*0.41*					*0.64*	*0.89*	*0.06*	*0.54*	
Uniform Delay d_1	*67.3*		*48.8*					*27.9*	*1.2*	*84.2*	*34.0*	
Delay Factor k	*0.31*		*0.37*					*0.42*	*0.11*	*0.11*	*0.33*	
Incremental Delay d_2	*3.2*		*3.3*					*0.2*	*0.0*	*1.5*	*1.0*	
PF Factor	*1.000*		*0.883*					*0.459*	*0.532*	*1.000*	*0.699*	
Control Delay	*70.5*		*46.4*					*13.0*	*0.6*	*85.7*	*24.8*	
Lane Group LOS	*E*		*D*					*B*	*A*	*F*	*C*	
Approach Delay	*54.3*						*12.7*			*26.7*		
Approach LOS	*D*						*B*			*C*		
Intersection Delay	*26.4*			Intersection LOS						*C*		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	GGP & I-75 - NB OFF-RAMP
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/14/2012	Jurisdiction	
Time Period	AM	Analysis Year	2039 Green

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		3			3		2		1			
Lane Group		T			T		L		R			
Volume (vph)		1920			1698		588		20			
% Heavy Vehicles		4			4		6		6			
PHF		0.95			0.95		0.95		0.95			
Pretimed/Actuated (P/A)		A			A		A		A			
Startup Lost Time		2.0			2.0		2.0		2.0			
Extension of Effective Green		2.0			2.0		2.0		2.0			
Arrival Type		4			4		3		3			
Unit Extension		3.0			3.0		3.0		3.0			
Ped/Bike/RTOR Volume	0	0		0	0		0	0	20			
Lane Width		12.0			12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N			
Parking/Hour												
Bus Stops/Hour		0			0		0		0			
Minimum Pedestrian Time		3.2			3.2			3.2				

Phasing	Thru Only	02	03	04	NB Only	06	07	08
Timing	G = 86.0	G =	G =	G =	G = 34.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		2021			1787		619		0			
Lane Group Capacity		3292			3292		865		399			
v/c Ratio		0.61			0.54		0.72		0.00			
Green Ratio		0.66			0.66		0.26		0.26			
Uniform Delay d_1		12.5			11.6		43.6		35.4			
Delay Factor k		0.20			0.14		0.28		0.11			
Incremental Delay d_2		0.1			0.2		2.8		0.0			
PF Factor		0.401			0.401		1.000		1.000			
Control Delay		5.1			4.8		46.5		35.4			
Lane Group LOS		A			A		D		D			
Approach Delay		5.1			4.8		46.5					
Approach LOS		A			A		D					
Intersection Delay		10.8			Intersection LOS					B		

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*GGP & I-75 - SB OFF-RAMP*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/14/2012*	Jurisdiction	
Time Period	*AM*	Analysis Year	*2039 Green*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		*4*	*1*	*1*	*3*					*2*		*2*
Lane Group		*T*	*R*	*L*	*T*					*L*		*R*
Volume (vph)		*1745*	*463*	*16*	*2270*					*837*		*1472*
% Heavy Vehicles		*4*	*4*	*4*	*4*					*6*		*6*
PHF		*0.97*	*0.97*	*0.97*	*0.97*					*0.97*		*0.97*
Pretimed/Actuated (P/A)		*A*	*A*	*A*	*A*					*A*		*A*
Startup Lost Time		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Extension of Effective Green		*2.0*	*2.0*	*2.0*	*2.0*					*2.0*		*2.0*
Arrival Type		*4*	*3*	*3*	*4*					*3*		*3*
Unit Extension		*3.0*	*3.0*	*3.0*	*3.0*					*3.0*		*3.0*
Ped/Bike/RTOR Volume	*0*	*0*	*463*	*0*	*0*					*0*	*0*	*84*
Lane Width		*12.0*	*12.0*	*12.0*	*12.0*					*12.0*		*12.0*
Parking/Grade/Parking	*N*	*0*	*N*	*N*	*0*	*N*				*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour		*0*	*0*	*0*	*0*					*0*		*0*
Minimum Pedestrian Time		*3.2*			*3.2*						*3.2*	

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = *8.0*	G = *44.0*	G =	G =	G = *64.0*	G =	G =	G =
	Y = *4*	Y = *5*	Y =	Y =	Y = *5*	Y =	Y =	Y =
Duration of Analysis (hrs) = *0.25*						Cycle Length C = *130.0*		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		*1799*	*0*	*16*	*2340*					*863*		*1431*
Lane Group Capacity		*2246*	*526*	*107*	*2144*					*1628*		*1328*
v/c Ratio		*0.80*	*0.00*	*0.15*	*1.09*					*0.53*		*1.08*
Green Ratio		*0.34*	*0.34*	*0.06*	*0.43*					*0.49*		*0.49*
Uniform Delay d_1		*39.0*	*28.4*	*57.8*	*37.0*					*22.7*		*33.0*
Delay Factor k		*0.34*	*0.11*	*0.11*	*0.50*					*0.13*		*0.50*
Incremental Delay d_2		*2.2*	*0.0*	*0.5*	*47.3*					*0.3*		*48.5*
PF Factor		*0.954*	*1.000*	*1.000*	*0.860*					*1.000*		*1.000*
Control Delay		*39.4*	*28.4*	*58.2*	*79.1*					*23.0*		*81.5*
Lane Group LOS		*D*	*C*	*E*	*E*					*C*		*F*
Approach Delay		*39.4*			*78.9*					*59.5*		
Approach LOS		*D*			*E*					*E*		
Intersection Delay		*61.0*			Intersection LOS					*E*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	AJC
Agency/Co.	AIM ENGR
Date Performed	2/21/2012
Analysis Time Period	PM

Site Information

Intersection	I-75 WB OFF @ SR 29
Jurisdiction	
Analysis Year	2039 GREEN

Project Description

East/West Street: I-75 WB OFF Ramp

North/South Street: SR 29

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	310	527			421	
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	326	554	0	0	443	0
Percent Heavy Vehicles	22	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	1	0	0	1	0
Configuration	L	T			T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				31		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	0	0	0	32	0	0
Percent Heavy Vehicles	0	0	0	6	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	0
Configuration				L		

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L		L					
v (veh/h)	326		32					
C (m) (veh/h)	1019		72					
v/c	0.32		0.44					
95% queue length	1.39		1.77					
Control Delay (s/veh)	10.2		90.1					
LOS	B		F					
Approach Delay (s/veh)	--	--	90.1					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	AJC
Agency/Co.	AIM ENGR
Date Performed	2/21/2012
Analysis Time Period	PM

Site Information

Intersection	I-75 EB OFF@ SR 29
Jurisdiction	
Analysis Year	2039 GREEN

Project Description

East/West Street: I-75 Ramps | North/South Street: SR 29

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		403		350	102	
Peak-Hour Factor, PHF	0.95	0.95	1.00	0.95	0.95	1.00
Hourly Flow Rate, HFR (veh/h)	0	424	0	368	107	0
Percent Heavy Vehicles	6	--	--	22	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration		T		L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	434					
Peak-Hour Factor, PHF	0.95	1.00	1.00	0.95	1.00	1.00
Hourly Flow Rate, HFR (veh/h)	456	0	0	0	0	0
Percent Heavy Vehicles	6	0	0	6	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	0	0	0	0
Configuration	L					

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L				L		
v (veh/h)		368				456		
C (m) (veh/h)		1036				118		
v/c		0.36				3.86		
95% queue length		1.62				45.97		
Control Delay (s/veh)		10.4				1364		
LOS		B				F		
Approach Delay (s/veh)	--	--				1364		
Approach LOS	--	--				F		

SHORT REPORT

General Information		Site Information	
Analyst	*AJC*	Intersection	*I-75 WB Off Ramp & CR 951*
Agency or Co.	*AIM Engineering*	Area Type	*All other areas*
Date Performed	*03/14/2012*	Jurisdiction	
Time Period	*PM*	Analysis Year	*2039 Green*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				*2*		*2*		*4*			*4*	*1*
Lane Group				*L*		*R*		*T*			*T*	*R*
Volume (vph)				*145*		*91*		*3510*			*2803*	*753*
% Heavy Vehicles				*6*		*6*		*3*			*3*	*3*
PHF				*0.95*		*0.95*		*0.95*			*0.95*	*0.95*
Pretimed/Actuated (P/A)				*A*		*A*		*A*			*A*	*A*
Startup Lost Time				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Extension of Effective Green				*2.0*		*2.0*		*2.0*			*2.0*	*2.0*
Arrival Type				*3*		*3*		*4*			*4*	*3*
Unit Extension				*3.0*		*3.0*		*3.0*			*3.0*	*3.0*
Ped/Bike/RTOR Volume				*0*	*0*	*0*	*0*	*0*		*0*	*0*	*753*
Lane Width				*12.0*		*12.0*		*12.0*			*12.0*	*12.0*
Parking/Grade/Parking				*N*	*0*	*N*	*N*	*0*	*N*	*N*	*0*	*N*
Parking/Hour												
Bus Stops/Hour				*0*		*0*		*0*			*0*	*0*
Minimum Pedestrian Time					*3.2*			*3.2*			*3.2*	

Phasing	WB Only	02	03	04	Thru & RT	06	07	08
Timing	G = *22.5*	G =	G =	G =	G = *62.0*	G =	G =	G =
	Y = *5*	Y =	Y =	Y =	Y = *5*	Y =	Y =	Y =

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *94.5*

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate				*153*		*96*		*3695*			*2951*	*0*
Lane Group Capacity				*787*		*642*		*4396*			*4396*	*1029*
v/c Ratio				*0.19*		*0.15*		*0.84*			*0.67*	*0.00*
Green Ratio				*0.24*		*0.24*		*0.66*			*0.66*	*0.66*
Uniform Delay d_1				*28.8*		*28.4*		*12.5*			*10.0*	*5.6*
Delay Factor k				*0.11*		*0.11*		*0.38*			*0.24*	*0.11*
Incremental Delay d_2				*0.1*		*0.1*		*0.1*			*0.4*	*0.0*
PF Factor				*1.000*		*1.000*		*0.419*			*0.419*	*1.000*
Control Delay				*28.9*		*28.5*		*5.4*			*4.6*	*5.6*
Lane Group LOS				*C*		*C*		*A*			*A*	*A*
Approach Delay				*28.8*			*5.4*			*4.6*		
Approach LOS				*C*			*A*			*A*		
Intersection Delay	*5.9*			Intersection LOS						*A*		

SHORT REPORT

General Information		Site Information	
Analyst	AJC	Intersection	I-75 & CR 951 - SB OFF-RAMP
Agency or Co.	AIM Engineering	Area Type	All other areas
Date Performed	03/14/2012	Jurisdiction	
Time Period	PM	Analysis Year	2039 Green

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	3		3					5	1	2	4	
Lane Group	L		R					T	R	L	T	
Volume (vph)	959		1960					4091	184	116	2832	
% Heavy Vehicles	6		6					3	3	3	3	
PHF	0.97		0.97					0.97	0.97	0.97	0.97	
Pretimed/Actuated (P/A)	A		A					A	A	A	A	
Startup Lost Time	2.0		2.0					2.0	2.0	2.0	2.0	
Extension of Effective Green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival Type	4		4					4	4	4	4	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0				0	0	0	0	0	
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N				N	0	N	N	0	N
Parking/Hour												
Bus Stops/Hour	0		0					0	0	0	0	
Minimum Pedestrian Time		3.2						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	SB Only	08
Timing	G = 51.0	G =	G =	G =	G = 27.5	G = 71.5	G = 17.0	G =
	Y = 5	Y =	Y =	Y =	Y = 4	Y = 4	Y = 5	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 185.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	989		2021					4218	190	120	2920	
Lane Group Capacity	1279		2094					4663	1348	313	3350	
v/c Ratio	0.77		0.97					0.90	0.14	0.38	0.87	
Green Ratio	0.28		0.45					0.56	0.86	0.09	0.50	
Uniform Delay d_1	61.7		49.3					36.6	2.1	79.1	41.0	
Delay Factor k	0.32		0.47					0.43	0.11	0.11	0.40	
Incremental Delay d_2	3.0		12.5					0.3	0.0	0.5	1.8	
PF Factor	1.000		0.835					0.668	0.409	1.000	0.767	
Control Delay	64.7		53.7					24.8	0.9	79.6	33.3	
Lane Group LOS	E		D					C	A	E	C	
Approach Delay	57.3						23.7			35.1		
Approach LOS	E						C			D		
Intersection Delay	36.7			Intersection LOS						D		