CAPACITY ANALYSIS – PHASE II WITHOUT DICKINSON STREET RAMP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations			·		414			ă	ተተ _ጉ			ă
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0	4.0			4.0
Lane Util. Factor					0.95			1.00	0.91			1.00
Frt					0.95			1.00	1.00			1.00
Flt Protected					0.98			0.95	1.00			0.95
Satd. Flow (prot)					3276			1770 0.95	5075 1.00			1770 0.95
Fit Permitted					0.98 3276			1770	5075			1770
Satd. Flow (perm)	^		0	40	<u>3276</u> 5	8	4	377	1686	24	5	1770
Volume (vph)	0 0.92	0 0.92	0.92	10 0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak-hour factor, PHF Adj. Flow (vph)	0.92	0.92	0.92	11	5	9	0.92 4	410	1833	26	5	18
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	1	0	0	0
Lane Group Flow (vph)	0	0	0	0	17	0	Ö	414	1858	Ö	0	23
Turn Type				Split	•		Prot	Prot		_	Prot	Prot
Protected Phases				8	8		1	1	6		5	5
Permitted Phases				_	_							
Actuated Green, G (s)					4.2			32.8	86.5			3.3
Effective Green, g (s)					6.2			33.8	87.5			4.3
Actuated g/C Ratio					0.06			0.31	0.80			0.04
Clearance Time (s)					6.0			5.0	5.0			5.0
Vehicle Extension (s)					3.0			3.0	3.0			3.0
Lane Grp Cap (vph)					185			544	4037			69
v/s Ratio Prot					c0.01			c0.23	0.37			0.01
v/s Ratio Perm												
v/c Ratio					0.09			0.76	0.46			0.33
Uniform Delay, d1					49.2			34.4	3.6			51.5 1.00
Progression Factor					1.00 0.2			0.65 3.9	0.31 0.2			2.8
Incremental Delay, d2					49.4			26.4	1.3			54.3
Delay (s) Level of Service					нэ. ч D			20.4 C	Α			D
Approach Delay (s)		0.0			49.4				5.9			J
Approach LOS		Α			D				A			
		, ,			_							
Intersection Summary			40.0	1	IOM L	L - £ O -						
HCM Average Control D			12.2	h	ICIVI LE\	el of Se	ervice		В			
HCM Volume to Capacit			0.64 110.0	c	um of k	ost time	(e)		12.0			
Actuated Cycle Length (sometimes of the Intersection Capacity Utilians)			67.1%			el of Ser			12.0 C			
Analysis Period (min)	nzauvil		15	, i	JO LEVE	,	•100		_			
c Critical Lane Group			10									
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Movement	SBT	SBR
Lan Configurations	የ ተጉ	
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frt	0.99	
FIt Protected	1.00	
Satd. Flow (prot)	5018	
FIt Permitted	1.00	
Satd. Flow (perm)	5018	
Volume (vph)	1405	136
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1527	148
RTOR Reduction (vph)	9	0
Lane Group Flow (vph)	1666	0
Turn Type		
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	57.0	
Effective Green, g (s)	58.0	
Actuated g/C Ratio	0.53	
Clearance Time (s)	5.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2646	
v/s Ratio Prot	c0.33	
v/s Ratio Perm		
v/c Ratio	0.63	
Uniform Delay, d1	18.4	
Progression Factor	1.00	
Incremental Delay, d2	1.1	
Delay (s)	19.6	
Level of Service	B 20.0	
Approach Delay (s)		
Approach LOS	С	
Intersection Summary		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations					47>			ă	ተ ቀጉ			ሽ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		152		0		320
Storage Lanes	0		0	0		0		1		0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50	50		50	50
Trailing Detector (ft)			_	0	0	_	0	0	0	^	0	0
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Right Turn on Red			Yes		00	Yes			30	Yes		
Link Speed (mph)		30			30				ას 1103			
Link Distance (ft)		369			514 11.7				25.1			
Travel Time (s)	0	8.4 0	0	10	11.7	8	4	377	1686	24	5	17
Volume (vph) Peak Hour Factor	0 0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Turn Type	0.52	0.32	0.32	Split	0.32	0.52	Prot	Prot	U.JZ	0.02	Prot	Prot
Protected Phases				3piit 8	8		1 101	1 101	6		5	5
Permitted Phases				U	U		•	•	· ·		•	ŭ
Detector Phases				8	8		1	1	6		5	5
Minimum Initial (s)				7.0	7.0		4.6	4.6	34.0		4.6	4.6
Minimum Split (s)				13.0	13.0		10.0	10.0	53.0		10.0	10.0
Total Split (s)	0.0	0.0	0.0	15.0	15.0	0.0	44.0	44.0	83.0	0.0	12.0	12.0
Total Split (%)	0.0%	0.0%	0.0%	13.6%	13.6%	0.0%	40.0%	40.0%	75.5%	0.0%	10.9%	10.9%
Yellow Time (s)				4.0	4.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)				2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lead/Lag							Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes
Recall Mode				None	None		None	None	C-Min	77717	None	None
Lead/Lag Lead-Lag Optimize?				None	None		Yes	Yes	Yes		Yes	Yes

Area Type: Other

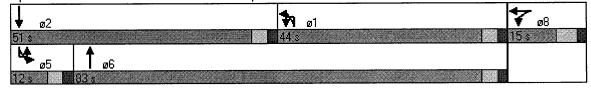
Cycle Length: 110
Actuated Cycle Length: 110

Offset: 108 (98%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 1: I-95 NB On Ramp & Chris Columbus Blvd.





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Lane Group	SBT	SBR
Lan Configurations	ተላጉ	
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)	50	
Trailing Detector (ft)	0	
Turning Speed (mph)		9
Right Turn on Red		Yes
Link Speed (mph)	30	
Link Distance (ft)	527	
Travel Time (s)	12.0	
Volume (vph)	1405	136
Peak Hour Factor	0.92	0.92
Turn Type		
Protected Phases	2	
Permitted Phases	***	
Detector Phases	2	
Minimum Initial (s)	34.0	******************************
Minimum Split (s)	39.0	
Total Split (s)	51.0	0.0
Total Split (%)	46.4%	0.0%
Yellow Time (s)	3.0	
All-Red Time (s)	2.0	
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Recall Mode	C-Min	
Intersection Summary		

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Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	ኻኻ	77	ሻሻ	ተተተ	u	ተ ተጉ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util, Factor	0.97	0.88	0.97	0.91	1.00	0.91	
Frt	1.00	0.85	1.00	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	3433	2787	3367	4988	1752	4964	
Flt Permitted	0.95	1.00	0.95	1.00	0.11	1.00	
Satd. Flow (perm)	3433	2787	3367	4988	194	4964	
Volume (vph)	143	1306	485	1922	11	1294	114
Peak-hour factor, PHF	0.81	0.92	0.80	0.76	0.92	0.92	0.77
Adj. Flow (vph)	177	1420	606	2529	12	1407	148
RTOR Reduction (vph)	0	3	0	0	0	12	0
Lane Group Flow (vph)	177	1417	606	2529	12	1543	0
Heavy Vehicles (%)	2%	2%	4%	4%	3%_	3%	3%
Turn Type		pt+ov	Prot		Perm		
Protected Phases	3	3 1	1	6		2	
Permitted Phases					2		
Actuated Green, G (s)	31.0	62.0	25.0	67.0	36.0	36.0	
Effective Green, g (s)	33.0	64.0	27.0	69.0	38.0	38.0	
Actuated g/C Ratio	0.30	0.58	0.25	0.63	0.35	0.35	
Clearance Time (s)	6.0		6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1030	1622	826	3129	67	1715	
v/s Ratio Prot	0.05	c0.51	0.18	0.51		c0.31	
v/s Ratio Perm					0.06		
v/c Ratio	0.17	0.87	0.73	0.81	0.18	0.90	
Uniform Delay, d1	28.4	19.6	38.2	15.5	25.1	34.2	
Progression Factor	1.00	1.00	1.06	0.69	0.25	0.52	
Incremental Delay, d2	0.1	5.5	2.8	2.0	4.8	6.8	
Delay (s)	28.5	25.1	43.2	12.7	11.2	24.7	
Level of Service	С	С	D	В	В	04.5	
Approach Delay (s)	25.5			18.6		24.5	
Approach LOS	С			В		С	
Intersection Summary							_
HCM Average Control D			21.8	F	ICM Le	vel of Se	ervice C
HCM Volume to Capacit			0.88	_			(-)
Actuated Cycle Length (110.0			ost time	
Intersection Capacity Ut	ilization		86.3%	10	JU Lev	el of Ser	rvice E
Analysis Period (min)			15				

c Critical Lane Group

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Lane Group	EBL	EBR	NBL	NBT	SBU	SBT	SBR	
Lane Configurations	ሻሻ	ሻሻ	ሻሻ	^ ^	Ð	<u>ተ</u> ተጉ		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	150		150		0	
Storage Lanes	2	2	2		1		0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)	50	50	50	50	50	50		
Trailing Detector (ft)	0	0	0	0	0	0		
Turning Speed (mph)	15	9	15		9		9	
Right Turn on Red		Yes					Yes	
Link Speed (mph)	30			30		30		
Link Distance (ft)	589			1367		1103		
Travel Time (s)	13.4			31.1		25.1		
Volume (vph)	143	1306	485	1922	11	1294	114	
Peak Hour Factor	0.81	0.92	0.80	0.76	0.92	0.92	0.77	
Heavy Vehicles (%)	2%	2%	4%	4%	_ 3%	3%	3%	
Turn Type		pt+ov	Prot		Perm			
Protected Phases	3	3 1	1	6	_	2		
Permitted Phases	_				2	_		
Detector Phases	3	3 1	1	6	2	2		
Minimum Initial (s)	20.0		25.0	27.0	27.0	27.0		
Minimum Split (s)	26.0		31.0	64.0	33.0	33.0	6.0	
Total Split (s)	37.0	68.0	31.0	73.0	42.0	42.0	0.0	
Total Split (%)	33.6%	61.8%				38.2% 4.0	0.0%	
Yellow Time (s)	4.0		4.0	4.0	4.0	2.0		
All-Red Time (s)	2.0		2.0	2.0	2.0	a la company to the second sec		
Lead/Lag			Lead Yes		Lag Yes	Lag Yes		
Lead-Lag Optimize?	None			C-Max				
Recall Mode	None		NOHE	C-IVIAX	C-IVIAX	U-IVIAX		
Intersection Summary								
Area Type:	Other							
Cycle Length: 110 Actuated Cycle Length	. 110							
Offset: 12 (11%), Refe		nhase	2·SRTI	Land 6	NRT S	tart of G	ireen	
Natural Cycle: 90	i encea ic	priase	2.0010	Jana o.	ND1, O	tart or C	10011	
Control Type: Actuated	d-Coordin	ated						
Control Type. Actuated	a Coolain	alou						
Splits and Phases:	2: I-676 C	n & I-6	76/95 O	ff Ramr	& Chri	s Colum	bus Blvd	
a	114		. 3, 5 5 6			•		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ĵ.			4		ሻ	ተ ተጉ		ሻ	ተ ተጉ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	****************
Lane Util. Factor	1.00	1.00			1.00		1.00	0.91		1.00	0.91	
Frt	1.00	0.85		***************************************	1.00		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1787		1770	5081		1770	5009	
FIt Permitted	0.75	1.00			0.80		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1388	1583			1482		1770	5081		1770	5009	
Volume (vph)	258	0	96	15	3	0	189	2123	11	2	2354	262
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	0.92
Adj. Flow (vph)	280	0	104	16	3	0	205	2308	12	2	2559	285
RTOR Reduction (vph)	0	83	0	0	0	0	0	0	0	0	13	0
Lane Group Flow (vph)	280	21	0	0	19	0	205	2320	0	2	2831	0
Turn Type	Perm			Perm	<u>.</u>		Prot	_		Prot	_	
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8			400	70.0			FO 0	
Actuated Green, G (s)	20.0	20.0			20.0		16.0	72.6		1.4	58.0	
Effective Green, g (s)	22.0	22.0			22.0		17.0	73.6		2.4	59.0	
Actuated g/C Ratio	0.20	0.20			0.20		0.15	0.67		0.02	0.54	
Clearance Time (s)	6.0	6.0			6.0		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	
Lane Grp Cap (vph)	278	317			296		274	3400		39	2687	
v/s Ratio Prot	0.00	0.01			0.04		0,12	c0.46		0.00	c0.57	
v/s Ratio Perm	c0.20	0.07			0.01		0.75	0.00		0.05	1.05	
v/c Ratio	1.01	0.07			0.06		0.75	0.68		0.05	25.5	
Uniform Delay, d1	44.0	35.7			35.7		44.5 0.91	11.1 0.86		52.7 0.99	0.91	
Progression Factor	1.00	1.00			1.00 0.1		6.7	0.7		0.99	28.9	
Incremental Delay, d2	55.8	0.1 35.8			35.7		47.0	10.2		52.5	52.3	
Delay (s) Level of Service	99.8 F	SU.6 D			აა. <i>r</i> D		47.U D	10. <u>2</u> B		02.0 D	02.0 D	
	Г	82.5			35.7		U	13.2		U	52.3	
Approach Delay (s) Approach LOS		ο <u>ε</u> .σ F			55.7 D			13.2 B			02.0 D	
Approach 203		'			<u> </u>						٥	
Intersection Summary												
HCM Average Control D			37.1	Н	ICM Lev	vel of Se	ervice		D			
HCM Volume to Capacit			0.96				<i>(</i>)		0.0			
Actuated Cycle Length (110.0			ost time			8.0			
Intersection Capacity Ut	ilization		87.7%	10	JU Leve	el of Ser	vice		Ε			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1}			4		ሻ	ተ ቀጭ		ሻ	ተ ተሱ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	130		0	90		0
Storage Lanes	1		0	0		0	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0	_	0	0	_	0	0	_
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes		~~	Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		792			277			631			1367	
Travel Time (s)	050	18.0	00	45	6.3	0	400	14.3	4.4	^	31.1	200
Volume (vph)	258	0	96	15	3	0 0.92	189 0.92	2123 0.92	11 0.92	2 0.92	2354 0.92	262 0.92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92 Prot	0.92	0.92	Prot	0.92	0.92
Turn Type	Perm	4		Perm	8		1	6		710t 5	2	
Protected Phases	4	4		8	0		I	U		J	_	
Permitted Phases	4	4		8	8		1	6		5	2	
Detector Phases Minimum Initial (s)	10.0	10.0		10.0	10.0		7.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		12.0	25.0		12.0	25.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	0.0	17.0	72.0	0.0	12.0	67.0	0.0
Total Split (%)	23.6%			23.6%			15.5%			10.9%		0.0%
Yellow Time (s)	4.0	4.0	0.070	4.0	4.0	0.070	3.0	3.0	0.070	3.0	3.0	0.070
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lead/Lag	0	4.					Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
· · · · · · · · · · · · · · · · · · ·												

Area Type: Other

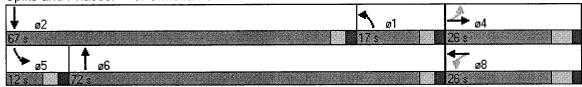
Cycle Length: 110
Actuated Cycle Length: 110

Offset: 64 (58%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Splits and Phases: 3: Christian St. & Chris Columbus Blvd.



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	4	7		4			ሕ ኘ	ተ ተጉ		ĸ	<u> </u>
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	16	12	12	12	12	12	10	13
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	0.95	0.91	0.95		1.00			0.97	0.91		1.00	0.95
Frt	1.00	1.00	0.85		0.98			1.00	1.00		1.00	1.00
Flt Protected	0.95	0.95	1.00		0.96			0.95	1.00	20.000.000.000.000.000.000.000	0.95	1.00
Satd. Flow (prot)	1665	1648	1504		2030			3433	5084		1652	3657
Flt Permitted	0.95	0.95	1.00		0.96			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1665	1648	1504		2030			3433	5084		1652	3657
Volume (vph)	618	0	347	20	2	4	21	303	1699	4	3	1677
Peak-hour factor, PHF	0.80	0.92	0.92	0.69	0.69	0.69	0.92	0.92	0.92	0.92	0.89	0.89
Adj. Flow (vph)	772	0	377	29	3	6	23	329	1847	4	3	1884
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	0
Lane Group Flow (vph)	386	386	377	0	32	0	0	352	1851	0	3	1884
Heavy Vehicles (%)	3%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Split		Free	Split			Prot	Prot			Prot	
Protected Phases	8	8		4	4		1	1	6		5	2
Permitted Phases			Free									
Actuated Green, G (s)	25.2	25.2	110.0		4.2			11.0	53.6		5.0	47.6
Effective Green, g (s)	27.2	27.2	110.0		6.2			12.0	54.6		6.0	48.6
Actuated g/C Ratio	0.25	0.25	1.00		0.06			0.11	0.50		0.05	0.44
Clearance Time (s)	6.0	6.0			6.0			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
Lane Grp Cap (vph)	412	408	1504		114			375	2524		90	1616
v/s Ratio Prot	0.23	c0.23			0.02			c0.10	0.36		0.00	c0.52
v/s Ratio Perm			0.25									
v/c Ratio	0.94	0.95	0.25		0.28			0.94	0.73		0.03	1.17
Uniform Delay, d1	40.6	40.7	0.0		49.8			48.6	21.9		49.3	30.7
Progression Factor	1.00	1.00	1.00		1.00			0.62	0.32		1.37	0.51
Incremental Delay, d2	28.7	30.8	0.4		1.4			27.9	1.7		0.1	77.6
Delay (s)	69.2	71.5	0.4		51.1			58.2	8.6		67.7	93.1
Level of Service	Е	Е	Α		D			Ε	Α		Е	F
Approach Delay (s)		47.4			51.1				16.5			63.2
Approach LOS		D			D	3333333344444444			В			Е
Intersection Summary												
HCM Average Control D			43.5	F	ICM Lev	el of Ser	vice		D			
HCM Volume to Capacit	y ratio		1.02									
Actuated Cycle Length (110.0			ost time (12.0			
Intersection Capacity Ut	ilization		89.0%	l(CU Leve	el of Serv	ice		E			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	SBR	
La † Configurations	7	
Ideal Flow (vphpl)	1900	
Lane Width	12 4.0	
Total Lost time (s) Lane Util, Factor	1.00	
Frt	0.85	
Fit Protected	1.00	
Satd. Flow (prot)	1583	
Fit Permitted	1.00	
Satd. Flow (perm)	1583	
Volume (vph)	802	
Peak-hour factor, PHF	0.89	
Adj. Flow (vph)	901	
RTOR Reduction (vph)	0	
Lane Group Flow (vph)	901	
Heavy Vehicles (%)	2%	
Turn Type	Free	
Protected Phases		
Permitted Phases	Free	
Actuated Green, G (s)	110.0	
Effective Green, g (s)	110.0	
Actuated g/C Ratio	1.00	
Clearance Time (s)		
Vehicle Extension (s)		
Lane Grp Cap (vph)	1583	
v/s Ratio Prot		
v/s Ratio Perm	c0.57	
v/c Ratio	0.57	
Uniform Delay, d1	0.0	
Progression Factor	1.00 0.6	
Incremental Delay, d2	0.6	
Delay (s) Level of Service	0.6 A	
Approach Delay (s)	A	
Approach LOS		
Intersection Summary		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations	ሻ	4	7		44			ሽኘ	ተተ _ጉ		ሻ	ተተ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	16	12	12	12	12	12	10	13
Storage Length (ft)	0		0	0		0		150		0	150	
Storage Lanes	1		1	0		0		2		0	1	_
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50		50	50
Trailing Detector (ft)	0	0	0	0	0		0	0	0	^	0	0
Turning Speed (mph)	15		. 9	15		9	9	15		9	15	
Right Turn on Red		•	Yes		00	Yes			20	Yes		30
Link Speed (mph)		30			30				30 82 1			631
Link Distance (ft)		130			507				ø∠1 18.7			14.3
Travel Time (s)	640	3.0	047	20	11.5 2	4	21	303	1699	4	3	1677
Volume (vph)	618	0 0.92	347 0.92	20 0.69	2 0.69	0.69	0.92	0.92	0.92	0.92	0.89	0.89
Peak Hour Factor	0.80 3%	0.92 2%	2%	0.69	0.69	0.09	2%	2%	2%	2%	2%	2%
Heavy Vehicles (%)	Split	270	∠7₀ Free	Split	U 70	U /0	276 Prot	Prot	Z 70	270	Prot	2 70
Turn Type Protected Phases	Spiit 8	8	FIEE	ори 4	4		1	1 101	6		5	2
Permitted Phases	U	U	Free	7	4		•	'	Ŭ		J	_
Detector Phases	8	8	1166	4	4		1	1	6		5	2
Minimum Initial (s)	10.0	10.0		7.0	7.0		11.0	11.0	29.0		5.0	29.0
Minimum Split (s)	16.0	16.0		13.0	13.0		16.0	16.0	34.0		10.0	34.0
Total Split (s)	26.0	26.0	0.0	13.0	13.0	0.0	16.0	16.0	61.0	0.0	10.0	55.0
Total Split (%)	23.6%				11.8%		14.5%			0.0%		50.0%
Yellow Time (s)	4.0	4.0	0.070	4.0	4.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lead/Lag				_			Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None		None	None		None	None	C-Min		Min	C-Min

Area Type: Other

Cycle Length: 110

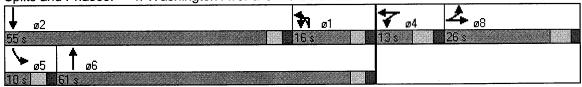
Actuated Cycle Length: 110

Offset: 76 (69%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 4: Washington Ave. & Chris Columbus Blvd.





Lane Group	SBR	
Land Configurations	7	
Ideal Flow (vphpl)	1900	
Lane Width (ft)	12	
Storage Length (ft)	0	
Storage Lanes	1	
Total Lost Time (s)	4.0	
Leading Detector (ft)	50	
Trailing Detector (ft)	0	
Turning Speed (mph)	9	
Right Turn on Red	Yes	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Volume (vph)	802	
Peak Hour Factor	0.89	
Heavy Vehicles (%)	2%	
Turn Type	Free	
Protected Phases		
Permitted Phases	Free	
Detector Phases		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)	0.0	
Total Split (%)	0.0%	
Yellow Time (s)		
All-Red Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		
Intersection Summary		
mersection summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ኻኻ		7					ተ ተ			Ä	ተተተ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.97		1.00					0.91			1.00	0.91
Frt	1.00	***************************************	0.85					1.00			1.00	1.00
Flt Protected	0.95		1.00					1.00			0.95	1.00
Satd. Flow (prot)	3433		1583					5085			1805	5036
Flt Permitted	0.95		1.00					1.00			0.95	1.00
Satd. Flow (perm)	3433		1583					5085			1805	5036
Volume (vph)	424	0	358	0	0	0	0	1563	0	8	0	2043
Peak-hour factor, PHF	0.94	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.44	0.92	0.97
Adj. Flow (vph)	451	0	377	0	0	0	0	1699	0	18	0	2106
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	451	0	377	0	0	0	0	1699	0	0	18	2106
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	0%	3%
Turn Type	Prot		Free							Prot	Prot	
Protected Phases	3				***************************************			6		5	5	2
Permitted Phases			Free									
Actuated Green, G (s)	19.2		110.0					69.2			5.6	79.8
Effective Green, g (s)	21.2		110.0					70.2			6.6	80.8
Actuated g/C Ratio	0.19		1.00					0.64			0.06	0.73
Clearance Time (s)	6.0							5.0			5.0	5.0
Vehicle Extension (s)	3.0							3.0			3.0	3.0
Lane Grp Cap (vph)	662		1583					3245			108	3699
v/s Ratio Prot	c0.13							0.33			0.01	c0.42
v/s Ratio Perm			0.24									
v/c Ratio	0.68		0.24					0.52			0.17	0.57
Uniform Delay, d1	41.3		0.0					10.8			49.1	6.7
Progression Factor	1.00		1.00					0.24			0.61	0.15
Incremental Delay, d2	2.9		0.4					0.3			0.2	0.2
Delay (s)	44.2		0.4					2.9			30.0	1.2
Level of Service	D		Α					Α			С	Α
Approach Delay (s)		24.2			0.0			2.9				1.4
Approach LOS		С			Α			Α				А
Intersection Summary												
HCM Average Control D	elay		6.0	H	ICM Lev	vel of Ser	vice		Α			
HCM Volume to Capacit	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.59		.,							
Actuated Cycle Length (110.0	S	Sum of lo	ost time (s)		8.0			
Intersection Capacity Ut			58.2%	10	CU Leve	el of Serv	rice		В			
Analysis Period (min)			15									
- Critical Lana Craus												

c Critical Lane Group



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Movement	SBR
Land Configurations	1900
Ideal Flow (vphpl) Total Lost time (s)	(900
Lane Util. Factor	
Frt	
Fit Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	
Heavy Vehicles (%)	2%
Turn Type Protected Phases	
Protected Phases Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s) Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻሻ		7					ተ ተጉ			ă	ተተተ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	148		0		110	000000000000000000000000000000000000000
Storage Lanes	2		1	0		0	0		0		1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50					50		50	50	50
Trailing Detector (ft)	0		0			www		0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			Yes	******************		Yes	***************************************		Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		596		***************************************	153			487				821
Travel Time (s)		13.5			3.5		_	11.1	-	-	_	18.7
Volume (vph)	424	0	358	0	0	0	0	1563	0	8	0	2043
Peak Hour Factor	0.94	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.44	0.92	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	0%	3%
Turn Type	Prot		Free					_		Prot	Prot	
Protected Phases	3							6		5	5	2
Permitted Phases	_		Free							-	-	_
Detector Phases	3							6		5	5	2
Minimum Initial (s)	10.0							35.0		7.0	7.0	35.0
Minimum Split (s)	16.0					~ ~		40.0		12.0	12.0	52.0
Total Split (s)	33.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	20.0	20.0	77.0
Total Split (%)	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.8%	0.0%	18.2%	18.2%	
Yellow Time (s)	4.0							3.0		3.0	3.0	3.0
All-Red Time (s)	2.0							2.0		2.0	2.0	2.0
Lead/Lag								Lead		Lag	Lag	
Lead-Lag Optimize?								Yes		Yes	Yes	C M:-
Recall Mode	None							C-Min		None	ivone	C-Min

Intersection Summary
Area Type: Other

Cycle Length: 110

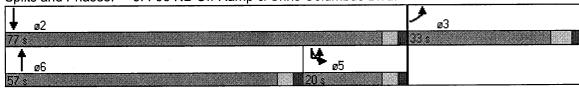
Actuated Cycle Length: 110

Offset: 74 (67%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 5: I-95 NB Off Ramp & Chris Columbus Blvd.





Lane Group	SBR	
L\$44 Configurations	JUN	
Ideal Flow (vphpl)	1900	
Storage Length (ft)	0	
Storage Lanes	0	
Total Lost Time (s)	4.0	
Leading Detector (ft)		
Trailing Detector (ft)		
Turning Speed (mph)	9	
Right Turn on Red	Yes	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)	0	
Volume (vph) Peak Hour Factor	0.92	
Heavy Vehicles (%)	2%	
Turn Type	270	
Protected Phases		
Permitted Phases		
Detector Phases		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)	0.0	
Total Split (%)	0.0%	
Yellow Time (s)		
All-Red Time (s)		
Lead/Lag		
Lead-Lag Optimize? Recall Mode		
Intersection Summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	ሻ	4	7	ሻ	4			ă	ተተ _ጉ			Ä
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	12	12	13	12	10	10	11	12	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0			4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95			1.00	0.91			1.00
Frt	1.00	1.00	0.85	1.00	0.92			1.00	1.00			1.00
FIt Protected	0.95	0.97	1.00	0.95	1.00		papa (0.95	1.00			0.95
Satd. Flow (prot)	1793	1768	1583	1698	1693			1624	4899			1620
Flt Permitted	0.95	0.97	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1793	1768	1583	1698	1693			1624	4899			1620
Volume (vph)	224	41	132	45	39	48	19	135	1280	18	12	118
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.75	0.75	0.80	0.47	0.92	0.87
Adj. Flow (vph)	243	45	143	54	46	57	25	180	1600	38	13	136
RTOR Reduction (vph)	0	0	127	0	41	0	0	0	2	0	0	0
Lane Group Flow (vph)	143	145	16	54	62	. 0	0	205	1636	0	0	149
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	4%	2%	2%	4%	4%
Turn Type	Split	P-1-2-10-00-10-10-10-10-10-10-10-10-10-10-10-	Prot	Split			Prot	Prot	_		Prot	Prot
Protected Phases	3	3	3	7	7		1	1	6		5	5
Permitted Phases	_											0F 7
Actuated Green, G (s)	10.0	10.0	10.0	10.0	10.0			13.0	42.3			25.7
Effective Green, g (s)	12.0	12.0	12.0	12.0	12.0			14.0	43.3			26.7
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11			0.13	0.39			0.24
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0			5.0	5.0			5.0 3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			
Lane Grp Cap (vph)	196	193	173	185	185			207	1928			393
v/s Ratio Prot	0.08	c0.08	0.01	0.03	c0.04			c0.13	0.33			0.09
v/s Ratio Perm	A 70	0.75	0.00	0.00	0.04			0.00	0.85			0.38
v/c Ratio	0.73	0.75	0.09	0.29	0.34			0.99	30.4			34.7
Uniform Delay, d1	47.4	47.6	44.1	45.1 1.00	45.3 1.00			47.9 0. 84	0.35			0.60
Progression Factor	1.00 12.7	1.00 15.1	1.00 0.2	0.9	1.1			50.4	3.6			0.5
Incremental Delay, d2	60.2	62.7	44.3	46.0	46.4			90.9	14.2			21.4
Delay (s) Level of Service	00.2 E	02.7 E	44.3 D	40.0 D	40.4 D	-		- 30.5 F	17.2 B			 C
Approach Delay (s)	L	55.8	U	U	46.2			•	22.7			•
Approach LOS		55.0 E			D				 C			
Intersection Summary												
HCM Average Control D	elav		29.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit			0.89	•								
Actuated Cycle Length (110.0	S	um of lo	ost time	(s)		16.0			200000000000000000000000000000000000000
Intersection Capacity Ut			83.1%			el of Ser			E			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	SBT	SBR
LanaConfigurations	ተ ተጉ	
Ideal Flow (vphpl)	1900	1900
Lane Width	10	12
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frt	0.98	
Flt Protected	1.00	
Satd. Flow (prot)	4632	
Flt Permitted	1.00	
Satd. Flow (perm)	4632	
Volume (vph)	2043	227
Peak-hour factor, PHF	0.97	0.80
Adj. Flow (vph)	2106	284
RTOR Reduction (vph)	16	
Lane Group Flow (vph)	2374	0
Heavy Vehicles (%)	3%	0%
Turn Type		
Protected Phases	2	
Permitted Phases	FF 0	
Actuated Green, G (s)	55.0	
Effective Green, g (s)	56.0	
Actuated g/C Ratio	0.51 5.0	
Clearance Time (s)	3.0	
Vehicle Extension (s)	2358	
Lane Grp Cap (vph) v/s Ratio Prot	2358 c0.51	
v/s Ratio Prot	CU.31	
v/c Ratio	1.01	
Uniform Delay, d1	27.0	
Progression Factor	0.39	
Incremental Delay, d2	19.0	
Delay (s)	29.5	
Level of Service	C	
Approach Delay (s)	29.0	
Approach LOS	C	
• •		
Intersection Summary		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	ሻ	4	7	ሻ	4			ă	ተተ _ጉ			Ä
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12	10	10	11	12	10	10
Storage Length (ft)	0		0	0		0		100		0		150
Storage Lanes	1		1	1		0	_	1	_	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50		50	50
Trailing Detector (ft)	0	0	0	0	0	^	0	0	0	^	0	0 15
Turning Speed (mph)	15		9	15		9	9	15		9 Yes	9	15
Right Turn on Red		20	Yes		20	Yes			30	168		
Link Speed (mph)		30 625			30 893				453			
Link Distance (ft)		14.2			20.3				10.3			
Travel Time (s)	224	41	132	45	39	48	19	135	1280	18	12	118
Volume (vph) Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.75	0.75	0.80	0.47	0.92	0.87
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	4%	2%	2%	4%	4%
Turn Type	Split	-70	Prot	Split		1 70	Prot	Prot	- 10		Prot	Prot
Protected Phases	3	3	3	7	7		1	1	6		5	5
Permitted Phases	_	_	-									
Detector Phases	3	3	3	7	7		1	1	6		5	5
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		7.0	7.0	35.0		7.0	7.0
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		12.0	12.0	40.0		12.0	12.0
Total Split (s)	16.0	16.0	16.0	16.0	16.0	0.0	18.0	18.0	56.0	0.0	22.0	22.0
Total Split (%)	14.5%	14.5%	14.5%	14.5%	14.5%	0.0%	16.4%	16.4%	50.9%	0.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lead/Lag							Lead	Lead	Lead	***	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None		None	None	C-Min		None	None

Area Type: Other

Cycle Length: 110

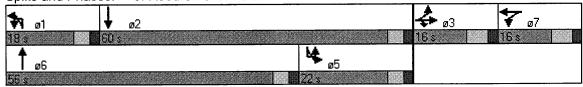
Actuated Cycle Length: 110

Offset: 85 (77%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Splits and Phases: 6: Reed St. & Chris Columbus Blvd.



	↓	4
Lane Group	SBT	SBR
Lana Configurations	ተተ _ጉ	
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	10	12
Storage Length (ft)		0
Storage Lanes		0
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)	50	
Trailing Detector (ft)	0	^
Turning Speed (mph)		9
Right Turn on Red	30	Yes
Link Speed (mph) Link Distance (ft)	487	
Travel Time (s)	40 <i>1</i> 11.1	
Volume (vph)	2043	227
Peak Hour Factor	0.97	0.80
Heavy Vehicles (%)	3%	0.00
Turn Type	5,0	-,5
Protected Phases	2	
Permitted Phases		
Detector Phases	2	
Minimum Initial (s)	35.0	
Minimum Split (s)	40.0	
Total Split (s)	60.0	0.0
Total Split (%)	54.5%	0.0%
Yellow Time (s)	3.0	
All-Red Time (s)	2.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Recall Mode	C-Min	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						7 7		ተተ _ጉ		16.54	^	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)						4.0		4.0		4.0	4.0	
Lane Util. Factor						0.88		0.91		0.97	0.95	
Frt						0.85		1.00		1.00	1.00	***************************************
Fit Protected						1.00		1.00		0.95	1.00	
Satd. Flow (prot)						2787		4964	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3433	3532	
Flt Permitted						1.00		1.00		0.95	1.00	
Satd. Flow (perm)						2787	98594-98594-98596-985	4964		3433	3532	
Volume (vph)	0	0	0	0	0	67	0	1383	50	162	2050	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.75	0.82	0.92	0.92	0.84	0.84
Adj. Flow (vph)	0	0	0	0	0	73	0	1687	54	176	2440	33
RTOR Reduction (vph)	0	0	0	0	0	40	0	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	33	0	1734	0	176	2473	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type			-			Over				Prot		
Protected Phases						1		2		1	6	
Permitted Phases												
Actuated Green, G (s)						48.0		51.0		48.0	110.0	
Effective Green, g (s)						50.0		52.0		50.0	110.0	
Actuated g/C Ratio						0.45		0.47		0.45	1.00	
Clearance Time (s)						6.0		5.0		6.0	5.0	
Vehicle Extension (s)						3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)						1267		2347		1560	3532	
v/s Ratio Prot						0.01		0.35		0.05	c0.70	
v/s Ratio Perm						0,0,		0.00				
v/c Ratio						0.03		0.74		0.11	0.70	
Uniform Delay, d1						16.6		23.5		17.2	0.0	
Progression Factor						1.00		0.39		0.33	1.00	
Incremental Delay, d2						0.0		1.8		0.0	0.6	
Delay (s)						16.6		11.1		5.7	0.6	
Level of Service						В		В		Α	Α	
Approach Delay (s)		0.0			16.6			11.1			0.9	
Approach LOS		А			В			В			А	
Intersection Summary							<u> </u>					
HCM Average Control D			5.1	Н	CM Lev	el of Se	rvice		А			
HCM Volume to Capacit			0.70	_	,.		, ,					
Actuated Cycle Length (110.0			ost time			0.0			
Intersection Capacity Ut	lization	(30.9%	10	JU Leve	el of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						77 77		ተተ _ጉ		ሻሻ	↑ ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)						50		50		50	50	
Trailing Detector (ft)					•	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		611			184			450			453	
Travel Time (s)		13.9	_	_	4.2			10.2	=-	400	10.3	
Volume (vph)	0	0	0	0	0	67	0	1383	50	162	2050	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.75	0.82	0.92	0.92	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type						Over		•		Prot	^	
Protected Phases						1		2		1	6	
Permitted Phases						4		0		4	^	
Detector Phases						1		2		1	6	
Minimum Initial (s)						7.0		35.0		7.0	35.0 40.0	
Minimum Split (s)	0.0	0.0	^^	0.0	0.0	13.0	0.0	40.0 88.0	0.0	13.0 22.0	110.0	0.0
Total Split (s)	0.0	0.0	0.0	0.0%	0.0	22.0		80.0%		20.0%1		0.0%
Total Split (%)	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	3.0	0.0%	4.0	3.0	0.0%
Yellow Time (s)						2.0		2.0		2.0	2.0	
All-Red Time (s)								Lead		Lag	2.0	
Lead/Lag Lead-Lag Optimize?						Lag Yes		Yes		Yes		
Recall Mode						None		C-Min			C-Min	
MERCALL MICHIE						INOLIC		O-MINI		INCHIC	O IVIIII	

Area Type:

Cycle Length: 110

Actuated Cycle Length: 110

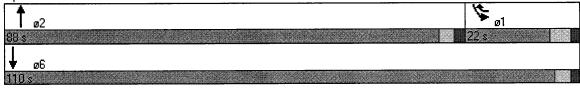
Offset: 45 (41%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 7: Dickinson St. & Chris Columbus Blvd.

Other



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			ર્ન	77		ተ ቀڼ		ሻ	ተ ጉ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		0.95			1.00	0.88		0.91		1.00	0.95	
Frt		0.94			1.00	0.85		0.99		1.00	0.99	
Fit Protected		0.99			0.97	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		3274			1815	2787		5028		1770	3515	
Flt Permitted		0.99			0.97	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		3274			1815	2787		5028		1770	3515	
Volume (vph)	82	82	113	93	84	122	0	1222	99	162	1715	81
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.99 1732	0.99 82
Adj. Flow (vph)	92	92	127	101	91	133	0	1328	108	176	1/32	0Z 0
RTOR Reduction (vph)	0 0	107	0	0	0 192	89 44	0	8 1428	0	0 176	د 1811	0
Lane Group Flow (vph)	_	204	U		192		U	1420	U	Prot	1011	
Turn Type	Split 4	4		Split 8	8	pt+ov 8 1		2		P10t	6	
Protected Phases	4	4		0	0	01				ı	U	
Permitted Phases		10.7			14.7	35.5		47.8		14.8	67.6	
Actuated Green, G (s) Effective Green, g (s)		12.7			16.7	36.5		48.8		15.8	68.6	
Actuated g/C Ratio		0.12			0.15	0.33		0.44		0.14	0.62	
Clearance Time (s)		6.0			6.0	0.00		5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		378			276	925		2231		254	2192	
v/s Ratio Prot		c0.06			c0.11	0.02		0.28		0.10	c0.52	
v/s Ratio Perm												
v/c Ratio		0.54			0.70	0.05		0.64		0.69	0.83	
Uniform Delay, d1		45.9			44.2	25.0		23.8		44.8	16.1	
Progression Factor		1.00			1.00	1.00		1.00		0.98	0.91	
Incremental Delay, d2		1.5			7.4	0.0	· · · · · · · · · · · · · · · · · · ·	1.4		5.6	2.6	
Delay (s)		47.4			51.7	25.0		25.2		49.4	17.3	
Level of Service		D			D	С		С		D	В	
Approach Delay (s)		47.4			40.7			25.2			20.1	
Approach LOS		D			D			С			С	
Intersection Summary												
HCM Average Control D			25.6	H	ICM Lev	vel of Se	rvice		С			
HCM Volume to Capacit	• *************************************		0.77									
Actuated Cycle Length (110.0			ost time			12.0			200000000000000000000000000000000000000
Intersection Capacity Uti	lization	•	77.9%	10	CU Leve	el of Ser	vice		D			
Analysis Period (min)	***************************************		15		1							
c Critical Lane Group												

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			4	77		ተተጉ		ሻ	ተ ጮ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50		50		50	50	
Trailing Detector (ft)	0	0		0	0	0	~~~	0	***************************************	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		600	****		820			229			450	
Travel Time (s)		13.6			18.6		_	5.2		400	10.2	0.4
Volume (vph)	82	82	113	93	84	122	0	1222	99	162	1715	81
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.99	0.99
Turn Type	Split			Split	<u></u>	pt+ov		_		Prot	^	
Protected Phases	4	4		8	8	8 1		2		1	6	
Permitted Phases		2		_		6 4		_		4	^	
Detector Phases	4	4		8	8	8 1		2		1	6	
Minimum Initial (s)	10.0	10.0		10.0	10.0			30.0		4.0	30.0	
Minimum Split (s)	16.0	16.0		16.0	16.0	45.0	0.0	35.0	0.0	9.0	35.0	0.0
Total Split (s)	16.0	16.0	0.0	22.0	22.0	45.0	0.0	49.0	0.0	23.0	72.0	0.0
Total Split (%)	14.5%	14.5%	0.0%	20.0%		40.9%	0.0%	44.5%	0.0%	20.9%		0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0			3.0		3.0 2.0	3.0 2.0	
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0			2.0	
Lead/Lag								Lag		Lead Yes		
Lead-Lag Optimize?	NI	NI		Mara -	None			Yes			C-Min	
Recall Mode	None	None		None	None			C-Min		None	C-IVIII1	

Area Type: Other

Cycle Length: 110

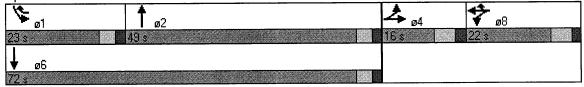
Actuated Cycle Length: 110

Offset: 46 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 8: Tasker St. & Chris Columbus Blvd.



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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations			ሻ	^ ^	ተተተ	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	4.0
Lane Util. Factor			1.00	0.91	0.91	1.00
Frt			1.00	1.00	1.00	0.85
FIt Protected			0.95	1.00	1.00	1.00
Satd. Flow (prot)			1770	5085	5085	1583
Flt Permitted			0.95	1.00	1.00	1.00
Satd. Flow (perm)			1770	5085	5085	1583
Volume (vph)	0	0	171	1321	1489	432
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	186	1436	1618	470
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	186	1436	1618	470
Turn Type			Prot	_	•	Free
Protected Phases			5	2	6	F
Permitted Phases			20.0	4400	70.0	Free
Actuated Green, G (s)			30.0	110.0	70.0	110.0 110.0
Effective Green, g (s)			31.0	110.0	71.0	1.00
Actuated g/C Ratio			0.28	1.00 5.0	0.65 5.0	1.00
Clearance Time (s)			5.0 3. 0		3.0	
Vehicle Extension (s)			**************	3.0		1583
Lane Grp Cap (vph)			499	5085 0. 28	3282	1000
v/s Ratio Prot			c0.11	U.Z0	c0.32	0.30
v/s Ratio Perm			0.37	0.28	0.49	0.30
v/c Ratio			31.7	0.0	10.1	0.0
Uniform Delay, d1			1.00	1.00	0.31	1.00
Progression Factor			0.5	0.1	0.3	0.3
Incremental Delay, d2			32.2	0.1	3.5	0.3
Delay (s) Level of Service			ک <u>د</u> .د C	Α.	3.3 A	Α.5
Approach Delay (s)	0.0		U	3.8	2.8	7
Approach LOS	ο.υ Α			3.0 A	2.0 A	
• •	^			7	~	
Intersection Summary						
HCM Average Control D			3.2	⊦	ICM Le	vel of Service
HCM Volume to Capacit			0.46		_	
Actuated Cycle Length (200000000000000000000000000000000000000	110.0			ost time (s)
Intersection Capacity Ut	ilization		60.8%	I(CU Leve	el of Service
Analysis Period (min)			15			
c Critical Lane Group						

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations			'n	ተተተ	ተተተ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0			100	
Storage Lanes	0	0	1			1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)			50	50	50	50	
Trailing Detector (ft)			0	0	0	0	
Turning Speed (mph)	15	9	15			9	
Right Turn on Red		Yes				Yes	
Link Speed (mph)	30			30	30		
Link Distance (ft)	197			126	229		
Travel Time (s)	4.5			2.9	5.2		
Volume (vph)	0	0	171	1321	1489	432	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Turn Type			Prot			Free	
Protected Phases			5	2	6		
Permitted Phases						Free	
Detector Phases			5	2	6		
Minimum Initial (s)			30.0	35.0	35.0		
Minimum Split (s)			35.0	40.0	40.0		
Total Split (s)	0.0	0.0	52.0	110.0	58.0	0.0	
Total Split (%)	0.0%	0.0%		00.0%		0.0%	
Yellow Time (s)			3.0	3.0	3.0		
All-Red Time (s)			2.0	2.0	2.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Recall Mode			None	C-Min	C-Min		
Intersection Summary	1						
Area Type:	Other						
Cycle Length: 110	0 11 101						
Actuated Cycle Lengt	h· 110						
Offset: 49 (45%), Ref		phase	2:NBT	and 6:S	BT. Star	rt of Gree	en
Natural Cycle: 75					•		
Control Type: Actuate	d-Coordin	ated					
Splits and Phases:	9: Morris S	St. & Ch	ris Colu	ımbus E	Blvd.		·
† ø2							
440							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					ĵ _e			4				
Sign Control		Stop			Stop			Stop	_	-	Stop	_
Volume (vph)	0	0	0	0	537	66	53	402	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	584	72	58	437	0	0	0	0
Direction, Lane #	WB 1	NB 1										
Volume Total (vph)	655	495										
Volume Left (vph)	0	58										
Volume Right (vph)	72	0										
Hadj (s)	-0.03	0.06										
Departure Headway (s)	5.4	5.9										
Degree Utilization, x	0.99	0.81										
Capacity (veh/h)	657	609										
Control Delay (s)	54.8	28.7										
Approach Delay (s)	54.8	28.7										
Approach LOS	F	D										
Intersection Summary												
Delay			43.6									
HCM Level of Service			Е									
Intersection Capacity Uti	lization		33.0%	IC	SU Leve	l of Ser	vice		В			
Analysis Period (min)			15									

	≯	-	*	•	←	•	4	†	~	-	↓	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					1			4				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		60			197			103		******************************	95	
Travel Time (s)		1.4			4.5			2.3			2.2	
Volume (vph)	0	0	0	0	537	66	53	402	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
	Other											
Control Type: Unsignalia	zed											

	۶	→	\rightarrow	•	←	•	₹î	4	†	*	>	ļ
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					413-			ነኝ	ተተ _ጉ		ሻ	ተ ቀኩ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	***************************************	***************************************	4.0	4.0		4.0	4.0
Lane Util. Factor					0.95			1.00	0.91		1.00	0.91
Frt					0.94			1.00	0.99		1.00	0.99
Flt Protected					0.98			0.95	1.00		0.95	1.00
Satd. Flow (prot)					3318			1788	5036		1736	5046
Flt Permitted					0.98			0.95	1.00		0.95	1.00
Satd. Flow (perm)					3318			1788	5036	0.4	1736	5046
Volume (vph)	0	0	0	10	3	9	6	549	1099	61	28	1326
Peak-hour factor, PHF	0.92	0.92	0.92	0.64	0.64	0.64	0.25 24	0.95 578	0.82 1340	0.66 92	0.65 43	0.85 1560
Adj. Flow (vph)	0	0	0	16	5	14		0	1340	92	43 0	5
RTOR Reduction (vph)	0 0	0	0 0	0	13 22	0 0	0	602	1427	0	43	1654
Lane Group Flow (vph)	2%	2%	2%	0%	0%	0%	0%	1%	2%	2%	4%	2%
Heavy Vehicles (%)	Z 70	Z /0	2 /0		0 /6	U 70	Prot	Prot	2 /0	2 70	Prot	2 /0
Turn Type Protected Phases				Split 8	8		710t	710t	6		710t 5	2
Permitted Phases				0	O		ı		U		J	2
Actuated Green, G (s)					4.2			54.5	104.1		5.7	55.3
Effective Green, g (s)					6.2			55.5	105.1		6.7	56.3
Actuated g/C Ratio					0.05			0.43	0.81		0.05	0.43
Clearance Time (s)					6.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)					3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)					158			763	4071		89	2185
v/s Ratio Prot					c0.01			c0.34	0.28		0.02	c0.33
v/s Ratio Perm												
v/c Ratio					0.14			0.79	0.35		0.48	0.76
Uniform Delay, d1					59.3			32.2	3.3		60.0	31.1
Progression Factor					1.00			0.81	1.26		1.00	1.00
Incremental Delay, d2					0.4			4.7	0.2		4.1	2.5
Delay (s)					59.7			30.8	4.4		64.1	33.6
Level of Service					E			С	Α		Ε	С
Approach Delay (s)		0.0			59.7	***************************************	*******************		12.2			34.4
Approach LOS		Α			Ε				В			С
Intersection Summary												
HCM Average Control D			22.6	F	ICM Lev	el of Se	rvice		С			
HCM Volume to Capacit	•		0.74									
Actuated Cycle Length (130.0		Sum of Id				12.0			
Intersection Capacity Uti	lization	-	74.0%	10	CU Leve	el of Sen	vice		D			
Analysis Period (min)			15									

c Critical Lane Group



Movement	SBR
Land Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Fit Permitted	
Satd. Flow (perm)	
Volume (vph)	82
Peak-hour factor, PHF	0.83
Adj. Flow (vph) RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	
intersection outlinally	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					414	_		¥	ተተ _ጉ		ሻ	ተ ቀጉ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0		152		0	320	
Storage Lanes	0		0	0		0		1		0	1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)				50	50		50	50	50		50	50
Trailing Detector (ft)				0	0	2	0	0	0	_	0	0
Turning Speed (mph)	15		9	15		9	9	15		9	15	
Right Turn on Red			Yes			Yes				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		369			514				1103			527
Travel Time (s)		8.4	_		11.7	_		= 40	25.1	0.4	00	12.0
Volume (vph)	0	0	0	10	3	9	6	549	1099	61	28	1326
Peak Hour Factor	0.92	0.92	0.92	0.64	0.64	0.64	0.25	0.95	0.82	0.66	0.65	0.85
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	1%	2%	2%	4%	2%
Turn Type				Split	_		Prot	Prot	^		Prot	^
Protected Phases				8	8		1	1	6		5	2
Permitted Phases				•	^		4	4	^		5	2
Detector Phases				8	8		1	1	6		5.0	27.0
Minimum Initial (s)				7.0	7.0		5.0	5.0	27.0 53.0		10.0	32.0
Minimum Split (s)	~ ~	2.2	~ ^	13.0	13.0	0.0	10.0 61.0	10.0 61.0	105.0	0.0	12.0	56.0
Total Split (s)	0.0	0.0	0.0	13.0	13.0			46.9%		0.0%	9.2%	43.1%
Total Split (%)	0.0%	0.0%	0.0%		10.0%	0.0%	46.9%	3.0	3.0	0.0%	3.0	3.0
Yellow Time (s)				4.0	4.0		3.0	2.0	3.0 2.0		2.0	2.0
All-Red Time (s)				2.0	2.0		2.0					
Lead/Lag							Lead	Lead Yes	Lag Yes		Lead Yes	Lag Yes
Lead-Lag Optimize?				N1	NI		Yes None	None	C-Min		None	C-Min
Recall Mode				None	None		ivone	None	C-IVIII)		INUITE	C-MIN

Area Type: Other

Cycle Length: 130

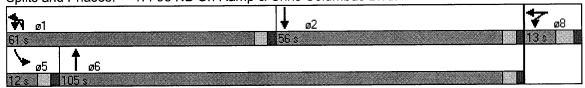
Actuated Cycle Length: 130

Offset: 96 (74%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 1: I-95 NB On Ramp & Chris Columbus Blvd.





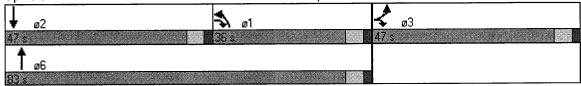
Lane Group	SBR	
	JUIN	
Lengt Flow (graph)	1900	
Ideal Flow (vphpl)	0	
Storage Length (ft) Storage Lanes	0	
Total Lost Time (s)	4.0	
Leading Detector (ft)	4.0	
Trailing Detector (ft)		
Turning Speed (mph)	9	
Right Turn on Red	Yes	
Link Speed (mph)	103	
Link Distance (ft)		
Travel Time (s)		
Volume (vph)	82	
Peak Hour Factor	0.83	
Heavy Vehicles (%)	0%	
Turn Type	- 7 -	
Protected Phases		
Permitted Phases		
Detector Phases		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)	0.0	
Total Split (%)	0.0%	
Yellow Time (s)		
All-Red Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		
Intersection Summary		
magachan cammary		

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻሻ	7 7	ሻሻ	ተተተ	ተተተ			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.88	0.97	0.91	0.91			
Frt	1.00	0.85	1.00	1.00	0.99			
FIt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	3400	2814	3467	5085	5072			DUDGE_CT08000000000000
FIt Permitted	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	3400	2814	3467	5085	5072			
Volume (vph)	139	1326	685	1572	1235	107		
Peak-hour factor, PHF	0.81	0.90	0.94	0.84	0.93	0.89		***************************************
Adj. Flow (vph)	172	1473	729	1871	1328	120		
RTOR Reduction (vph)	0	3	0	0	8	0		
Lane Group Flow (vph)	172	1470	729	1871	1440	0		
Heavy Vehicles (%)	3%	1%	1%	2%	1%	1%		
Turn Type		pt+ov	Prot					
Protected Phases	3	3 1	1	6	2			
Permitted Phases								
Actuated Green, G (s)	37.1	73.8	30.7	80.9	44.2			
Effective Green, g (s)	39.1	75.8	32.7	82.9	46.2			
Actuated g/C Ratio	0.30	0.58	0.25	0.64	0.36			
Clearance Time (s)	6.0		6.0	6.0	6.0			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	1023	1641	872	3243	1803			
v/s Ratio Prot	0.05	c0.52	0.21	0.37	c0.28			
v/s Ratio Perm								
v/c Ratio	0.17	0.90	0.84	0.58	0.80			
Uniform Delay, d1	33.5	23.7	46.1	13.5	37.7			
Progression Factor	1.00	1.00	0.84	0.71	0.26			
Incremental Delay, d2	0.1	6.8	4.9	0.5	2.6			
Delay (s)	33.6	30.4	43.5	10.0	12.5			
Level of Service	С	С	D	В	В			
Approach Delay (s)	30.8			19.4	12.5			
Approach LOS	C			В	В			
Intersection Summary								
HCM Average Control D	Delay		20.9	F	HCM Lev	el of Service	C	
HCM Volume to Capaci			0.86					
Actuated Cycle Length			130.0			ost time (s)	8.0	
Intersection Capacity U			79.3%	10	CU Leve	el of Service	D	***************************************
Analysis Period (min)			15					
c Critical Lane Group								

c Critical Lane Group

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ት ነት	7474	777	ተተተ	ተተተ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	150			0
Storage Lanes	2	2	2			0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	
Trailing Detector (ft)	0	0	0	0	0	
Turning Speed (mph)	15	9	15			9
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			1367	1103	
Travel Time (s)	13.4			31.1	25.1	
Volume (vph)	139	1326	685	1572	1235	107
Peak Hour Factor	0.81	0.90	0.94	0.84	0.93	0.89
Heavy Vehicles (%)	3%	1%	1%	2%	1%	1%
Turn Type		pt+ov	Prot			
Protected Phases	3	3 1	1	6	2	
Permitted Phases						
Detector Phases	3	3 1	1	6	2	
Minimum Initial (s)	20.0		25.0	27.0	27.0	
Minimum Split (s)	26.0		31.0	64.0	33.0	
Total Split (s)	47.0	83.0	36.0		47.0	0.0
Total Split (%)	36.2%	63.8%	27.7%	63.8%		0.0%
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None		None	C-Min	C-Min	
Intersection Summary	1					
	Other					
Area Type:	Other					
Cycle Length: 130	h∙ 13∩					
Actuated Cycle Lengt Offset: 0 (0%), Refere		hace 2.	SRT on	id 6·NP1	Γ Start d	of Green
Natural Cycle: 90	ысва юр	11 056 Z.	וטווםט.	IG U.IND	i, Giair C	71 OLECH
Control Type: Actuate	d-Coordin	ated				
Control Type. Actuate	a-Coordin	aleu				
Snlits and Phases	2· I-676 C	n & I₋6	76/95 C)ff Ramr	a & Chris	s Columb

Splits and Phases: 2: I-676 On & I-676/95 Off Ramp & Chris Columbus Blvd.



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ኻ	4			4		ሻ	ተ ቀጐ			ሻ	<u>ተ</u> ተት
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00		1.00	0.91			1.00	0.91
Frt	1.00	0.86			0.98		1.00	1.00		**************	1.00	0.98
Fit Protected	0.95	1.00			0.96		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	1628			1774	******************************	1805	5081			1805	5035
Flt Permitted	0.78	1.00			0.69		0.95	1.00			0.95	1.00
Satd. Flow (perm)	1459	1628			1268		1805	5081			1805	5035
Volume (vph)	162	2	146	13	2	2	177	2078	10	5	16	2201
Peak-hour factor, PHF	0.82	0.25	0.89	0.60	0.50	0.50	0.87	0.84	0.56	0.62	0.31	0.95
Adj. Flow (vph)	198	8	164	22	4	4	203	2474	18	8	52	2317
RTOR Reduction (vph)	0	137	0	0	_3	0	0	1	0	0	0	15
Lane Group Flow (vph)	198	35	0	0	27	0	203	2491	0	0	60	2650
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%	0%	2%	0%	0%	0%	1%
Turn Type	Perm			Perm			Prot	•		Prot	Prot	•
Protected Phases	<u>.</u>	4		_	8		1	6		5	5	2
Permitted Phases	4			8	40.0		40.5	07.4			7.0	75.0
Actuated Green, G (s)	19.6	19.6			19.6		18.5	87.1			7.3	75.9
Effective Green, g (s)	21.6	21.6			21.6		19.5	88.1			8.3	76.9
Actuated g/C Ratio	0.17	0.17			0.17		0.15	0.68			0.06	0.59
Clearance Time (s)	6.0	6.0			6.0		5.0	5.0			5.0 3.0	5.0 3.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	242	270			211		271	3443			115	2978 c0.53
v/s Ratio Prot	0.44	0.02			0.00		c0.11	c0.49			0.03	00.55
v/s Ratio Perm	c0.14	0.40			0.02		0.75	0.72			0.52	0.89
v/c Ratio	0.82	0.13			0.13 46.2		52.9	13.2			58.9	22.9
Uniform Delay, d1	52.3	46.2 1.00			1.00		0.87	0.48			0.96	0.74
Progression Factor	1.00 18. 9	0.2			0.3		8.0	1.0			2.1	2.3
Incremental Delay, d2	71.2	46.4			46.4		54.1	7.4			58.6	19.2
Delay (s) Level of Service	71.Z E	40.4 D			40.4 D		D-1.1	Α			E	В
Approach Delay (s)	L	59.7			46.4		J	10.9			 -	20.1
Approach LOS		55.7 F			то.т П			10.0				C
		-			U			_				
Intersection Summary												
HCM Average Control D			18.5	F	ICM Lev	rel of Se	ervice		В			
HCM Volume to Capacit			0.83 1 3 0.0	_		•			~ ~			
Actuated Cycle Length (um of lo				8.0						
Intersection Capacity Ut	ılızation	{	81.6%	10	CU Leve	e of Ser	vice		D			
Analysis Period (min)			15									
c Critical Lane Group												



Movement	SBR
Lange Configurations	·
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Fit Protected	
Satd. Flow (prot) FIt Permitted	
Satd. Flow (perm)	
Volume (vph)	338
Peak-hour factor, PHF	0.97
Adj. Flow (vph)	348
RTOR Reduction (vph)	0
Lane Group Flow (vph)	
Heavy Vehicles (%)	1%
Turn Type Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph) v/s Ratio Prot	
v/s Ratio Prot v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service Approach Delay (s)	
Approach LOS	
Intersection Summary	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻ	1→			4		Ť	ተተጉ			ሻ	<u>ተ</u> ተጉ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	130	vvvv 200 v.200 000 ananoniconom	0		90	
Storage Lanes	1		0	0		0	1		0		1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	50
Trailing Detector (ft)	0			0	0	_	0	0	_	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			Yes			Yes			Yes			20
Link Speed (mph)		30			30			30				30
Link Distance (ft)		792			277			631				1367
Travel Time (s)		18.0	4.40	40	6.3	0	477	14.3	40	F	16	31.1 2201
Volume (vph)	162	2	146	13	2	2 0.50	177	2078	10 0.56	5 0.62	0.31	0.95
Peak Hour Factor	0.82	0.25	0.89	0.60	0.50 0%	0.50	0.87 0%	0.84 2%	0.50	0.62	0.31	1%
Heavy Vehicles (%)	2%	0%	0%	2%	υ%	υ%		2 70	U%	Prot	Prot	1 /0
Turn Type	Perm			Perm	8		Prot 1	6		710t	F101	2
Protected Phases	1	4		8	0		ı	U		J	J	
Permitted Phases	4	4		8	8		1	6		5	5	2
Detector Phases	4 10.0	10.0		10.0	10.0		7.0	20.0		7.0	7.0	20.0
Minimum Initial (s)	16.0			16.0	16.0		12.0	25.0		12.0	12.0	25.0
Minimum Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	23.0	90.0	0.0	13.0	13.0	80.0
Total Split (s) Total Split (%)	20.8%			20.8%		0.0%	17.7%				10.0%	
Yellow Time (s)	4.0	4.0	0.076	4.0	4.0	0.070	3.0	3.0	0.070	3.0	3.0	3.0
All-Red Time (s)	2.0			2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lead/Lag	2.0	2.0		2.0	2.0		Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None			None		C-Min
recall Mode	INUITE	INULIE		HUHE	HULLE		110110	J 171111				

Area Type: Other

Cycle Length: 130

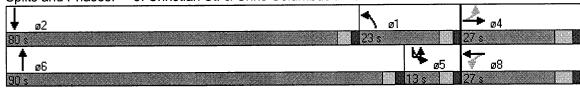
Actuated Cycle Length: 130

Offset: 117 (90%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

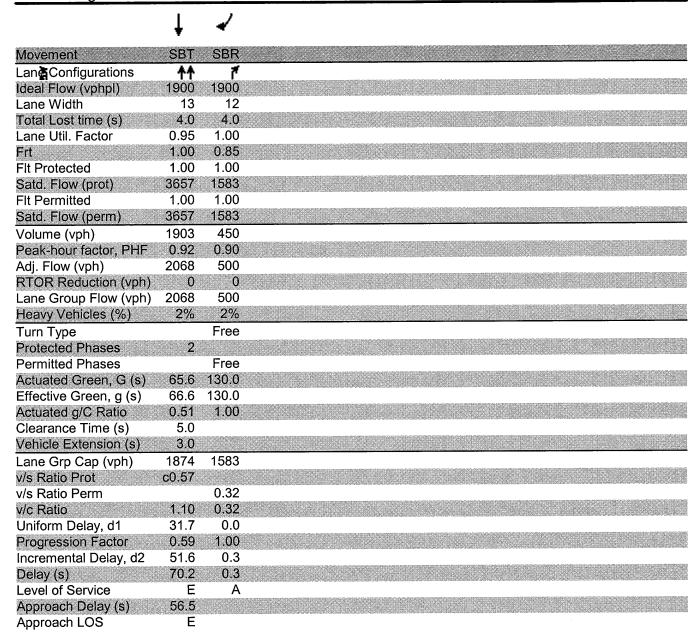
Splits and Phases: 3: Christian St. & Chris Columbus Blvd.





Lane Group	SBR	
Lane Group Lane Group	UUIN	
Ideal Flow (vphpl)	1900	
Storage Length (ft)	0	
Storage Lanes	Ō	
Total Lost Time (s)	4.0	
Leading Detector (ft)		
Trailing Detector (ft)		
Turning Speed (mph)	9	
Right Turn on Red	Yes	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)	000	
Volume (vph)	338 0.97	
Peak Hour Factor	1%	
Heavy Vehicles (%) Turn Type	1 70	
Protected Phases		
Permitted Phases		
Detector Phases		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)	0.0	
Total Split (%)	0.0%	
Yellow Time (s)		
All-Red Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		
Intersection Summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	ካ	4	7		44			ሽኘ	ተተጉ			Ä
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	13	12	12	16	12	12	12	12	12	12	10
Total Lost time (s)	4.0	4.0	4.0		4.0			4.0	4.0			4.0
Lane Util. Factor	0.95	0.91	0.95		1.00			0.97	0.91			1.00
Frt	1.00	1.00	0.85		0.95			1.00	1.00			1.00
Flt Protected	0.95	0.95	1.00	***************************************	0.99			0.95	1.00			0.95
Satd. Flow (prot)	1665	1657	1504		2019			3433	5082			1652
Flt Permitted	0.95	0.95	1.00		0.99			0.95	1.00			0.95
Satd. Flow (perm)	1665	1657	1504		2019			3433	5082			1652
Volume (vph)	532	4	445	4	4	5	2	372	1723	3	6	0
Peak-hour factor, PHF	0.96	0.25	0.92	0.50	0.33	0.42	0.91	0.91	0.85	0.38	0.75	0.92
Adj. Flow (vph)	554	16	484	8	12	12	2	409	2027	8	8	0
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	278	292	484	0	21	0	0	411	2035	0	0	8
Heavy Vehicles (%)	3%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Split		Free	Split			Prot	Prot	_		Prot	Prot
Protected Phases	8	8	_	4	4		1	1	6		5	5
Permitted Phases			Free					440	740			- 0
Actuated Green, G (s)	24.2	24.2	130.0		4.2			14.0	74.6			5.0
Effective Green, g (s)	26.2	26.2	130.0		6.2			15.0	75.6			6.0
Actuated g/C Ratio	0.20	0.20	1.00		0.05			0.12	0.58			0.05
Clearance Time (s)	6.0	6.0			6.0			5.0	5.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	336	334	1504		96			396	2955			76
v/s Ratio Prot	0.17	c0.18	0.00		0.01			c0.12	0.40			0.00
v/s Ratio Perm	^ ^^	0 D7	c0.32		0.04			4.04	0.00			0.44
v/c Ratio	0.83	0.87	0.32		0.21			1.04	0.69			0.11 59.4
Uniform Delay, d1	49.7	50.3	0.0		59.6			57.5	19.0			0.62
Progression Factor	1.00	1.00	1.00		1.00			0.79 49.2	0.38 1.0			0.02
Incremental Delay, d2	15.3 65.0	21.5 71.8	0.6 0.6		1.1 60.7			94.9	8.3			37.0
Delay (s) Level of Service	63.0 E	71.0 E	0.0 A		ου. <i>τ</i> Ε			94.9 F	0.5 A			57.0 D
Approach Delay (s)		37.3	А		60.7			1	22.8			U
Approach LOS		ی.ن D			00.7 E				C			
• •		U			L				Ü			
Intersection Summary					0141	1 - (0 -						
HCM Average Control D			39.7	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacit			0.98	^	.	(C	7-1		40.0			
Actuated Cycle Length (THE RESERVE OF THE PROPERTY OF THE PARTY OF		130.0			ost time			12.0 F			
Intersection Capacity Uti	ıızatıon		99.3%	10	JU Leve	el of Sen	vice		Г			
Analysis Period (min)			15									
c Critical Lane Group												



	→	-	\rightarrow	•	←	*	₹î	1	†	/	L	-
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	¥	4	7		4			ሕ ካ	ተ ቀጉ			ħ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	16	12	12	12	12	12	12	10
Storage Length (ft)	0		0	0		0		300		0		150
Storage Lanes	1	277.42322222222	1	0		0	_	2		0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50		50	50
Trailing Detector (ft)	0	0	0	0	0		0	0	0	^	0	0
Turning Speed (mph)	15		9	15		. 9	9	15		9	9	15
Right Turn on Red			Yes			Yes			00	Yes		
Link Speed (mph)		30			30				30			
Link Distance (ft)		259			507				821			
Travel Time (s)		5.9			11.5	-	^	270	18.7	3	6	0
Volume (vph)	532	4	445	4	4	5	2	372	1723 0.85	ა 0.38	0.75	0.92
Peak Hour Factor	0.96	0.25	0.92	0.50	0.33	0.42	0.91 2 %	0.91 2%	2%	0.36 2%	2%	2%
Heavy Vehicles (%)	3%	2%	2%	0%	0%	0%		∠7₀ Prot	∠70	270	∠ 70 Prot	270 Prot
Turn Type	Split	^	Free	Split	4		Prot 1	Prot	6		F101	5
Protected Phases	8	8	Fuse	4	4		I	1	U		ں	J
Permitted Phases		8	Free	4	4		1	1	6		5	5
Detector Phases	8			7.0	7.0		9.0	9.0	29.0		5.0	5.0
Minimum Initial (s)	10.0 16.0	10.0 16.0		13.0	13.0		14.0	14.0	34.0		10.0	10.0
Minimum Split (s)	25.0	25.0	0.0	13.0	13.0	0.0	19.0	19.0	82.0	0.0	10.0	10.0
Total Split (s) Total Split (%)		19.2%			10.0%			14.6%		0.0%	7.7%	7.7%
Yellow Time (s)	4.0	4.0	U.U /0	4.0	4.0	0.070	3.0	3.0	3.0	G.0 70	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lead/Lag	2.0	2.0		2.0	2.0		Lag	Lag	Lead		Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None		None	None		None	None	C-Min		Min	Min
Nodali Mode	NONE	110110		. 10110	. 10.10				<i>→</i>			

Area Type: Other

Cycle Length: 130

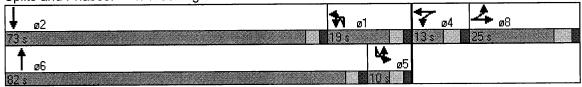
Actuated Cycle Length: 130

Offset: 118 (91%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Splits and Phases: 4: Washington Ave. & Chris Columbus Blvd.



Lane Group Lane Configurations Ideal Flow (vphpl) Lane Width (ft) Storage Length (ft) Storage Lanes Total Lost Time (s) Leading Detector (ft) Trailing Detector (ft) Trailing Speed (mph) Right Turn on Red Link Speed (mph) Link Distance (ft) Travel Time (s) Peak Hour Factor Heavy Vehicles (%) Turn Type Protected Phases Detector Phases Detector Phases Detector Phases Detector Phases Detector Summary Intersection Summary Intersection Summary I 200 I 900 I 900		¥	*
Lana Configurations Ideal Flow (vphpl) 1900 1900 1900 Lane Width (ft) 13 12 Storage Length (ft) 0 Storage Lanes 1 Total Lost Time (s) 4.0 4.0 Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 Right Turn on Red Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases Permitted Phases Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) Lead Lead Lead Lead Lead Lead Lead Lead	Lane Group	SBT	SBR
Ideal Flow (vphpl) 1900 1900 Lane Width (ft) 13 12 Storage Length (ft) 0 0 Storage Lanes 1 1 Total Lost Time (s) 4.0 4.0 Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 9 Right Turn on Red Yes 1 Link Speed (mph) 30 1 Link Distance (ft) 631 1 Travel Time (s) 14.3 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Free Protected Phases 2 Free Detector Phases 2 Free Detector Phases 2 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (%) 56.2% 0.0% <		朴	7
Storage Length (ft) 0 Storage Lanes 1 Total Lost Time (s) 4.0 4.0 Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 Yes Link Speed (mph) 30 Yes Link Distance (ft) 631 631 Travel Time (s) 14.3 70 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min	Ideal Flow (vphpl)		1900
Storage Lanes 1 Total Lost Time (s) 4.0 4.0 Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 Yes Link Speed (mph) 30 Yes Link Distance (ft) 631 631 Travel Time (s) 14.3 70 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Free Protected Phases 2 Free Detector Phases 2 Free Detector Phases 2 Yes Minimum Initial (s) 29.0 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead Lead-Lag Optimize? Yes Recall Mode C-Min		13	
Total Lost Time (s) 4.0 4.0 Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 Right Turn on Red Yes Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Free Protected Phases 2 Free Permitted Phases 2 Free Pree Pree 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Leading Detector (ft) 50 50 Trailing Detector (ft) 0 0 Turning Speed (mph) 9 9 Right Turn on Red Yes 14.3 Link Distance (ft) 631 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Free Protected Phases 2 Free Detector Phases 2 Free Detector Phases 2 No Minimum Initial (s) 34.0 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead Lead-Lag Optimize? Yes Recall Mode C-Min			•
Trailing Detector (ft) 0 0 Turning Speed (mph) 9 Right Turn on Red Yes Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Turning Speed (mph) 9 Right Turn on Red Yes Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Right Turn on Red Yes Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min		U	
Link Speed (mph) 30 Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Link Distance (ft) 631 Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min		30	100
Travel Time (s) 14.3 Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Volume (vph) 1903 450 Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases 52 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Peak Hour Factor 0.92 0.90 Heavy Vehicles (%) 2% 2% Turn Type Free Protected Phases 2 Permitted Phases 5 Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			450
Turn Type Protected Phases 2 Permitted Phases Free Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min		0.92	0.90
Protected Phases Permitted Phases Detector Phases Detector Phases Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Yellow Time (s) All-Red Time (s) Lead/Lag Lead Lead-Lag Optimize? Recall Mode Free 2 Area Free 0.0 0.0 0.0 0.0 0.0 0.0 0.0		2%	
Permitted Phases Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 Total Split (%) Yellow Time (s) All-Red Time (s) Lead/Lag Lead Lead-Lag Optimize? Recall Mode Free 2 0.0 4 0.0 56.2 0.0 2 0 Lead Lead Lead Lead Lead C-Min			Free
Detector Phases 2 Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min		2	_
Minimum Initial (s) 29.0 Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min		_	Free
Minimum Split (s) 34.0 Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min	and the second s		
Total Split (s) 73.0 0.0 Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
Total Split (%) 56.2% 0.0% Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			0.0
Yellow Time (s) 3.0 All-Red Time (s) 2.0 Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min			
All-Red Time (s) Lead/Lag Lead Lead-Lag Optimize? Recall Mode C-Min			J.V / V
Lead/Lag Lead Lead-Lag Optimize? Yes Recall Mode C-Min	` '		
Lead-Lag Optimize? Yes Recall Mode C-Min			
Recall Mode C-Min		Yes	
Intersection Summary		C-Min	
	Intersection Summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	ሻሻ		*					ተተ ጉ			ă	ተተተ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0					4.0			4.0	4.0
Lane Util. Factor	0.97		1.00					0.91			1.00	0.91
Frt	1.00		0.85					1.00			1.00	1.00
Fit Protected	0.95		1.00					1.00			0.95	1.00
Satd. Flow (prot)	3433		1568					5085		****	1805	5136
FIt Permitted	0.95		1.00					1.00			0.95	1.00
Satd. Flow (perm)	3433		1568					5085			1805	5136
Volume (vph)	403	0	410	0	0	0	0	1663	0	25	0	2330
Peak-hour factor, PHF	0.76	0.92	0.72	0.92	0.92	0.92	0.92	0.92	0.92	0.26	0.26	0.96
Adj. Flow (vph)	530	0	569	0	0	0	0	1808	0	96	0	2427
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	530	0	569	0	0	0	0	1808	0	0	96	2427
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	0%	0%	1%
Turn Type	Prot		Free							Prot	Prot	
Protected Phases	3	***************************************	***************************************		***************************************			6		5	5	2
Permitted Phases			Free									
Actuated Green, G (s)	24.7		130.0					69.5			19.8	94.3
Effective Green, g (s)	26.7		130.0					70.5			20.8	95.3
Actuated g/C Ratio	0.21	2000000	1.00	***************************************				0.54			0.16	0.73
Clearance Time (s)	6.0							5.0			5.0	5.0
Vehicle Extension (s)	3.0							3.0			3.0	3.0
Lane Grp Cap (vph)	705		1568					2758			289	3765
v/s Ratio Prot	c0.15							0.36			0.05	c0.47
v/s Ratio Perm			0.36									
v/c Ratio	0.75		0.36					0.66			0.33	0.64
Uniform Delay, d1	48.5		0.0					21.1			48.4	8.8
Progression Factor	1.00		1.00					0.09			0.56	0.11
Incremental Delay, d2	4.5		0.7					0.6			0.3	0.3
Delay (s)	53.1		0.7					2.5			27.5	1.3
Level of Service	D		Α					Α			C	Α
Approach Delay (s)		25.9			0.0			2.5				2.3
Approach LOS		C			Α			Α				А
Intersection Summary												
HCM Average Control D)elav		7.2	H	ICM Lev	vel of Se	rvice		Α			
HCM Volume to Capaci	9000000000 -		0.67		7							
Actuated Cycle Length (130.0	S	ium of l	ost time	(s)		8.0			
Intersection Capacity Ut			63.2%			el of Ser			В			
Analysis Period (min)			15									
a Critical Lana Craun			-									

c Critical Lane Group



Movement	SBR
L ֆሰቀ Configurations Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor Frt	
Flt Protected	
Satd. Flow (prot) Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF Adj. Flow (vph)	0.92 0
RTOR Reduction (vph)	0
Lane Group Flow (vph) Heavy Vehicles (%)	0 0%
Turn Type	078
Protected Phases	
Permitted Phases Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1 Progression Factor	
Incremental Delay, d2	
Delay (s) Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	14.54		7					ተ ተጉ			ă	ተተተ
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	148	w.w	0		110	er demonstrative relations and de-
Storage Lanes	2		1	0		0	0		0		1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50					50		50	50	50
Trailing Detector (ft)	0		0			0000 000 000 00 00 00 00 00 00 00 00 00		0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Right Turn on Red			Yes			Yes			Yes			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		596		**************************	153			487				821
Travel Time (s)		13.5			3.5			11.1	_		_	18.7
Volume (vph)	403	0	410	0	0	0	0	1663	0	25	0	2330
Peak Hour Factor	0.76	0.92	0.72	0.92	0.92	0.92	0.92	0.92	0.92	0.26	0.26	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	0%	_0%	1%
Turn Type	Prot		Free					_		Prot	Prot	
Protected Phases	3							6		5	5	2
Permitted Phases			Free					-		_	_	
Detector Phases	3							6		_ 5	_ 5	2
Minimum Initial (s)	10.0							35.0		7.0	7.0	35.0
Minimum Split (s)	16.0					_		40.0		12.0	12.0	52.0
Total Split (s)	39.0	0.0	0.0	0.0	0.0	0.0	0.0	67.0	0.0	24.0	24.0	91.0
Total Split (%)	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.5%	0.0%			
Yellow Time (s)	4.0							3.0		3.0	3.0	3.0
All-Red Time (s)	2.0							2.0		2.0	2.0	2.0
Lead/Lag								Lead		Lag	Lag	
Lead-Lag Optimize?								Yes		Yes	Yes	6 I I
Recall Mode	None							C-Min		None	None	C-Min

Area Type: Other

Cycle Length: 130

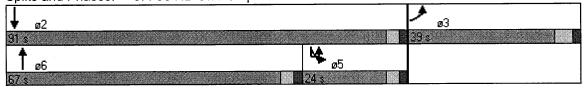
Actuated Cycle Length: 130

Offset: 122 (94%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

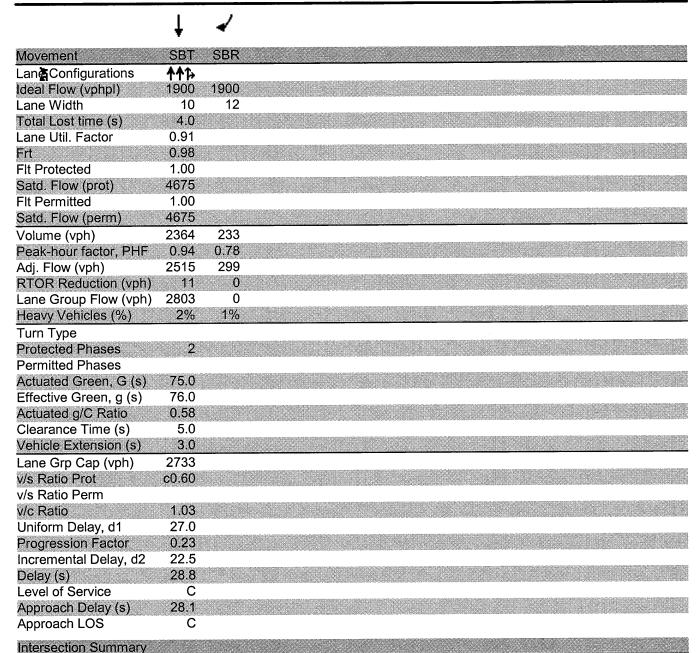
Splits and Phases: 5: I-95 NB Off Ramp & Chris Columbus Blvd.





	SBR	
Lane Group L♠♠♣ Configurations	אטט	
Ideal Flow (vphpl)	1900	
Storage Length (ft)	0	
Storage Lanes	0	
Total Lost Time (s)	4.0	
Leading Detector (ft)		
Trailing Detector (ft)		
Turning Speed (mph)	9	
Right Turn on Red	Yes	
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Volume (vph)	0	
Peak Hour Factor	0.92	
Heavy Vehicles (%)	0%	
Turn Type		
Protected Phases Permitted Phases		
Detector Phases		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)	0.0	
Total Split (%)	0.0%	
Yellow Time (s)		
All-Red Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode		
Intersection Summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	ች	4	7	ሻ	4			Ä	ተ ቀጉ			Ä
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	13	12	12	13	12	10	10	11	12	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0			4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95			1.00	0.91	***************************************	*************************	1.00
Frt	1.00	1.00	0.85	1.00	0.90			1.00	1.00			1.00
Flt Protected	0.95	0.97	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1793	1777	1615	1681	1685			1636	4900			1652
Flt Permitted	0.95	0.97	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1793	1777	1615	1681	1685			1636	4900			1652
Volume (vph)	194	40	163	46	29	68	18	181	1398	20	2	158
Peak-hour factor, PHF	0.87	0.83	1.00	0.70	0.50	0.65	0.92	0.92	0.80	0.47	0.69	0.69
Adj. Flow (vph)	223	48	163	66	58	105	20	197	1748	43	3	229
RTOR Reduction (vph)	0	0	148	0	50	0	0	0	2	0	0	0
Lane Group Flow (vph)	134	137	15	66	113	0	0	217	1789	0	0	232
Heavy Vehicles (%)	2%	1%	0%	2%	0%	0%	3%	3%	2%	0%	2%	2%
Turn Type	Split		Prot	Split			Prot	Prot			Prot	Prot
Protected Phases	3	3	3	7	7		1	1	6		5	5
Permitted Phases												****
Actuated Green, G (s)	10.0	10.0	10.0	7.0	7.0			16.0	53.3			37.7
Effective Green, g (s)	12.0	12.0	12.0	9.0	9.0			17.0	54.3			38.7
Actuated g/C Ratio	0.09	0.09	0.09	0.07	0.07			0.13	0.42			0.30
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0			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
Lane Grp Cap (vph)	166	164	149	116	117			214	2047			492
v/s Ratio Prot	0.07	c0.08	0.01	0.04	c0.07			c0.13	0.37			0.14
v/s Ratio Perm	***************************************											
v/c Ratio	0.81	0.84	0.10	0.57	0.96			1.01	0.87			0.47
Uniform Delay, d1	57.9	58.0	54.1	58.6	60.3			56.5	34.7			37.3
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.95	0.39			0.52
Incremental Delay, d2	24.2	29.1	0.3	6.3	71.2			56.5	4.2			0.6
Delay (s)	82.0	87.1	54.4	64.9	131.6			110.1	17.7			20.0
Level of Service	F	F	D	Е	F			F	В			С
Approach Delay (s)		73.2			112.4				27.7			
Approach LOS		Е			F				С			
Intersection Summary												
HCM Average Control D	elay		34.8	H	ICM Lev	el of Se	rvice		С			
HCM Volume to Capacil			1.00									
Actuated Cycle Length (s)		130.0			ost time			16.0			
Intersection Capacity Ut	ilization		89.5%	I(CU Leve	el of Serv	/ice		Ε			
Analysis Period (min)			15									
c Critical Lane Group												



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	ሻ	सी	7	ሻ	₩			À	ተ ተጉ			ă
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	13	12	12	13	12	10	10	11	12	10	10
Storage Length (ft)	0		0	0		0		100		0		150
Storage Lanes	1		1	1		0	_	1		0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50		50	50	50		50	50
Trailing Detector (ft)	0	0	0	0	0	•	0	0	0	^	0 9	0 15
Turning Speed (mph)	15		9	15		9	9	15		9 Yes	9	. 15
Right Turn on Red		20	Yes		20	Yes			30	165		
Link Speed (mph)		30 625			30 893				453			
Link Distance (ft)		14.2			20.3				10.3			
Travel Time (s)	194	40	163	46	20.3	68	18	181	1398	20	2	158
Volume (vph) Peak Hour Factor	0.87	0.83	1.00	0.70	0.50	0.65	0.92	0.92	0.80	0.47	0.69	0.69
Heavy Vehicles (%)	2%	1%	0%	2%	0.00	0.00	3%	3%	2%	0%	2%	2%
Turn Type	Split	1 70	Prot	Split	0,0	0,0	Prot	Prot		, ,	Prot	Prot
Protected Phases	3	3	3	7	7		1	1	6		5	5
Permitted Phases	J	J	ŭ	•	•							
Detector Phases	3	3	3	7	7		1	1	6		5	5
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0		7.0	7.0	35.0		7.0	7.0
Minimum Split (s)	16.0	16.0	16.0	11.0	11.0		12.0	12.0	40.0		12.0	12.0
Total Split (s)	16.0	16.0	16.0	13.0	13.0	0.0	21.0	21.0	68.0	0.0	33.0	33.0
Total Split (%)	12.3%	12.3%	12.3%	10.0%	10.0%	0.0%	16.2%	16.2%	52.3%	0.0%	25.4%	986000000000000000000000000000000000000
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lead/Lag							Lead	Lead	Lead		Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None		None	None	C-Min		None	None

Area Type: Other

Cycle Length: 130

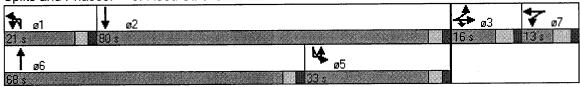
Actuated Cycle Length: 130

Offset: 11 (8%), Referenced to phase 2:SBT and 6:NBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 6: Reed St. & Chris Columbus Blvd.





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Lane Group	SBT	SBR
LanaConfigurations	ተተጉ	
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	10	12
Storage Length (ft)		0
Storage Lanes		0
Total Lost Time (s)	4.0	4.0
Leading Detector (ft)	50	
Trailing Detector (ft)	0	
Turning Speed (mph)		9
Right Turn on Red		Yes
Link Speed (mph)	30	
Link Distance (ft)	487	
Travel Time (s)	11.1	
Volume (vph)	2364	233
Peak Hour Factor	0.94	0.78
Heavy Vehicles (%)	2%	1%
Turn Type		
Protected Phases	2	
Permitted Phases		
Detector Phases	2	
Minimum Initial (s)	35.0	
Minimum Split (s)	40.0	
Total Split (s)	80.0	0.0
Total Split (%)	61.5%	0.0%
Yellow Time (s)	3.0	·····
All-Red Time (s)	2.0	
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Recall Mode	C-Min	
Intersection Summary		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						7676		ተ ተጉ		ሻሻ	ሶ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)						4.0		4.0		4.0	4.0	
Lane Util. Factor						0.88		0.91		0.97	0.95	
Frt						0.85		0.99		1.00	1.00	
Flt Protected						1.00		1.00		0.95	1.00 3539	
Satd. Flow (prot)						2787 1.00		5047 1.00		3433 0.95	1.00	
Fit Permitted						2787		5047		3433	3539	
Satd. Flow (perm)	0	0	0	0	0	145	0	1471	85	411	2179	0
Volume (vph) Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.85	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0.92	0.92	0.52	0.92	0.32	158	0.07	1731	92	447	2368	0.02
RTOR Reduction (vph)	0	0	0	0	0	30	0	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	128	0	1816	0	447	2368	0
Turn Type	-					Over				Prot		
Protected Phases						1		2		1	6	
Permitted Phases										2254727437400000000000000000000000000000000		
Actuated Green, G (s)						58.4		60.6		58.4	130.0	
Effective Green, g (s)		~~~~				60.4		61.6		60.4	130.0	
Actuated g/C Ratio						0.46		0.47		0.46	1.00	
Clearance Time (s)						6.0		5.0		6.0	5.0	
Vehicle Extension (s)						3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)						1295		2392		1595	3539	
v/s Ratio Prot						0.05		c0.36		0.13	c0.67	
v/s Ratio Perm						0.40		0.70		0.28	0.67	
v/c Ratio						0.10 19.5		0.76 28.1		21.4	0.0	
Uniform Delay, d1						1.00		0.36		0.29	1.00	
Progression Factor Incremental Delay, d2						0.0		1.7		0.0	0.3	
Delay (s)						19.6		11.7		6.3	0.3	
Level of Service						В		В		Α	Α	
Approach Delay (s)		0.0			19.6			11.7			1.2	
Approach LOS		Α			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		5.8	F	ICM Le	vel of Ser	rvice		Α			200000000000000000000000000000000000000
HCM Volume to Capacit	y ratio		0.71									
Actuated Cycle Length (130.0			ost time (4.0			
Intersection Capacity Ut	lization	١	63.6%	10	CU Leve	el of Serv	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				- <u>-</u>		77		ተ ቀጉ		ايراير	ሶ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)						50		50		50	50	
Trailing Detector (ft)						0		0		0	0	************
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red		v	Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		611			184			450			453	
Travel Time (s)	_	13.9	_	-	4.2			10.2	0.5	444	10.3	0
Volume (vph)	0	0	0	0	0	145	0	1471	85	411	2179	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.85	0.92	0.92	0.92	0.92
Turn Type						Over		0		Prot 1	6	
Protected Phases						1		2		I	ט	
Permitted Phases						1		2		1	6	
Detector Phases						4.0		35.0		4.0	35.0	
Minimum Initial (s)						10.0		40.0		10.0	40.0	
Minimum Split (s) Total Split (s)	0.0	0.0	0.0	0.0	0.0	40.0	0.0	90.0	0.0	40.0	130.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	0.0%			69.2%		30.8%1		0.0%
Yellow Time (s)	0.070	0.070	0.070	U.U./U	0.070	4.0	0.070	3.0	0.070	4.0	3.0	0.070
All-Red Time (s)						2.0	,	2.0		2.0	2.0	
Lead/Lag						Lag		Lead		Lag		
Lead-Lag Optimize?						Yes		Yes		Yes		
Recall Mode						None		C-Min			C-Min	

Area Type: Other

Cycle Length: 130

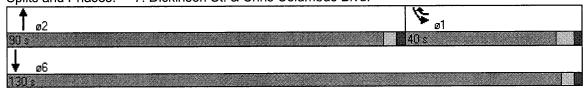
Actuated Cycle Length: 130

Offset: 101 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 7: Dickinson St. & Chris Columbus Blvd.



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		- 41}÷			4	77		<u>ተ</u> ቀሱ		ሻ	ት ጉ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	***************************************	4.0	4.0	000000000000000000000000000000000000000
Lane Util. Factor		0.95			1.00	0.88		0.91		1.00	0.95	
Frt		0.94			1.00	0.85		0.98		1.00	0.99	
Flt Protected		0.99			0.97	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		3292			1796	2682		4975		1805	3550	
Fit Permitted		0.99			0.97	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		3292			1796	2682		4975		1805	3550	
Volume (vph)	93	116	124	197	115	211	0	1251	165	137	1957	88
Peak-hour factor, PHF	0.91	0.83	0.78	0.61	0.77	0.94	0.75	0.88	0.58	0.92	0.94	0.82
Adj. Flow (vph)	102	140	159	323	149	224	0	1422	284	149	2082	107
RTOR Reduction (vph)	0	54	0	0	0	64	0	23	0	0	3	0
Lane Group Flow (vph)	0	347	0	0	472	160	0	1683	0	149	2186	0
Heavy Vehicles (%)	1%	0%	4%	2%	3%	6%	1%	2%	0%	0%	1%	0%
Turn Type	Split			Split		pt+ov				Prot		
Protected Phases	4	4		8	8	8 1		2		1	6	
Permitted Phases												
Actuated Green, G (s)		11.0	w		29.0	47.5		55.5		12.5	73.0	
Effective Green, g (s)		13.0			31.0	48.5		56.5		13.5	74.0	
Actuated g/C Ratio		0.10			0.24	0.37		0.43		0.10	0.57	
Clearance Time (s)		6.0			6.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		329			428	1001		2162		187	2021	
v/s Ratio Prot		c0.11			c0.26	0.06		0.34		0.08	c0.62	
v/s Ratio Perm											4.00	
v/c Ratio		1.05			1.10	0.16		0.78		0.80	1.08	
Uniform Delay, d1		58.5			49.5	27.2		31.4		56.9	28.0	
Progression Factor		1.00			1.00	1.00		1.00		0.83	1.49	
Incremental Delay, d2		64.7			74.3	0.1		2.8		15.8	44.0	
Delay (s)		123.2			123.8	27.2		34.2		63.1 E	85.7	
Level of Service		F			F	С		C 24.2		E	F 84.3	
Approach Delay (s)		123.2			92.7 F			34.2 C			04.3 F	
Approach LOS		Г			Г			U			Г	
Intersection Summary												
HCM Average Control D			71.8	H	ICM Lev	vel of Se	rvice		Ε			
HCM Volume to Capacit	·		1.08									
Actuated Cycle Length (130.0			ost time			12.0			
Intersection Capacity Uti	lization	***************************************	93.7%	10	CU Leve	el of Ser	vice		F			
Analysis Period (min)			15									

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			सी	717		ተ ቀሱ		ሻ	ት ጉ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50	50		50		50	50	
Trailing Detector (ft)	0	0		0	0	0	*************************	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Right Turn on Red			Yes	wa	***************************************	Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		600			820			229			450	
Travel Time (s)		13.6			18.6			5.2	405	407	10.2	00
Volume (vph)	93	116	124	197	115	211	0	1251	165	137	1957	88
Peak Hour Factor	0.91	0.83	0.78	0.61	0.77	0.94	0.75	0.88	0.58	0.92	0.94	0.82
Heavy Vehicles (%)	1%	0%	4%	2%	3%	6%	1%	2%	0%	0%	1%	0%
Turn Type	Split			Split	^	pt+ov		^		Prot	^	
Protected Phases	4	4		8	8	8 1		2		T	6	
Permitted Phases					•	0.4		^		4	^	
Detector Phases	_ 4	4		8	8	8 1		2		1	6	
Minimum Initial (s)	10.0	10.0		10.0	10.0			30.0		4.0	30.0 35.0	
Minimum Split (s)	16.0	16.0	~ ~	16.0	16.0	F0 0	0.0	35.0	0.0	9.0		0.0
Total Split (s)	17.0	17.0	0.0	35.0	35.0	53.0	0.0	60.0	0.0	18.0	78.0	0.0%
Total Split (%)	13.1%	13.1%	0.0%	26.9%		40.8%	0.0%	46.2%	0.0%	13.8%		0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0			3.0		3.0 2.0	3.0 2.0	
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0		and the second s	2.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?		.		X 1	NI			Yes		Yes	O Mic	
Recall Mode	None	None		None	None			C-Min		None	C-Min	

Area Type:

Cycle Length: 130

Actuated Cycle Length: 130

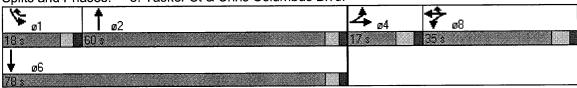
Offset: 98 (75%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Splits and Phases: 8: Tasker St & Chris Columbus Blvd.

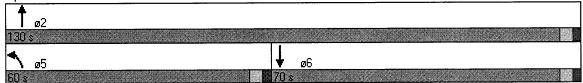
Other



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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations			ሻ	ተተተ	ተተተ	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0	4.0
Lane Util. Factor			1.00	0.91	0.91	1.00
Frt			1.00	1.00	1.00	0.85
Flt Protected			0.95	1.00	1.00	1.00
Satd. Flow (prot)			1770	5085	5085	1583
Flt Permitted			0.95	1.00	1.00	1.00
Satd. Flow (perm)			1770	5085	5085	1583
Volume (vph)	0	0	145	1416	1772	506
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	158	1539	1926	550
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	158	1539	1926	550
Turn Type			Prot			Free
Protected Phases			5	2	6	
Permitted Phases						Free
Actuated Green, G (s)			39.0	130.0	81.0	130.0
Effective Green, g (s)			40.0	130.0	82.0	130.0
Actuated g/C Ratio			0.31	1.00	0.63	1.00
Clearance Time (s)			5.0	5.0	5.0	
Vehicle Extension (s)			3.0	3.0	3.0	
Lane Grp Cap (vph)			545	5085	3207	1583
v/s Ratio Prot			0.09	0.30	c0.38	
v/s Ratio Perm						c0.35
v/c Ratio			0.29	0.30	0.60	0.35
Uniform Delay, d1			34.2	0.0	14.3	0.0
Progression Factor			1.00	1.00	0.37	1.00
Incremental Delay, d2			0.3	0.2	0.1	0.1
Delay (s)			34.5	0.2	5.4	0.1
Level of Service			С	Α	Α	Α
Approach Delay (s)	0.0			3.4	4.2	
Approach LOS	Α			Α	Α	
Intersection Summary						
HCM Average Control D	elav		3.9	F	ICM Le	vel of Service
HCM Volume to Capacit			0.51			
Actuated Cycle Length (130.0	S	Sum of I	ost time (s)
Intersection Capacity Uti			70.1%			el of Service
Analysis Period (min)			15			
c Critical Lane Group						

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		****	ካ	ተተተ	ተተተ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	150			100	
Storage Lanes	0	0	1			1	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Leading Detector (ft)			50	50	50	50	
Trailing Detector (ft)			0	0	0	0 9	
Turning Speed (mph)	15	9	15				The state of the s
Right Turn on Red		Yes		20	20	Yes	
Link Speed (mph)	30			30	30		
Link Distance (ft)	193			126	229		
Travel Time (s)	4.4	^	445	2.9 1416	5.2	506	
Volume (vph)	0 0.92	0 0.92	145 0.92	0.92	1772 0.92	0.92	
Peak Hour Factor	0.92	0.92	Prot	0.92	0.92	Free	
Turn Type Protected Phases			F101	2	6	FIEE	
Permitted Phases			J		U	Free	
Detector Phases			5	2	6	1100	
Minimum Initial (s)			39.0	35.0	35.0		
Minimum Split (s)			44.0	40.0	40.0		
Total Split (s)	0.0	0.0	60.0	130.0	70.0	0.0	
Total Split (%)	0.0%		46.2%1			0.0%	
Yellow Time (s)	0.070	0.070	3.0	3.0	3.0	J.J.,	
All-Red Time (s)			2.0	2.0	2.0		
Lead/Lag			Lead		Lag		
Lead-Lag Optimize?			Yes		Yes		
Recall Mode				C-Min			
Intersection Summary							
Area Type:	Other						
Cycle Length: 130							
Actuated Cycle Length:	130						
Offset: 102 (78%), Refe		o phas	e 2:NBT	and 6:	SBT, Sta	art of Gro	een
Natural Cycle: 85							
Control Type: Actuated	-Coordin	ated					

Splits and Phases: 9: Morris St. & Chris Columbus Blvd.



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					Þ			4				
Sign Control		Stop			Stop			Stop	_	_	Stop	_
Volume (vph)	0	0	0	0	573	78	76	701	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	623	85	83	762	0	0	0	0
Direction, Lane#	WB 1	NB 1										
Volume Total (vph)	708	845										
Volume Left (vph)	0	83										
Volume Right (vph)	85	0								***************************************		
Hadj (s)	-0.04	0.05										
Departure Headway (s)	5.7	5.8										
Degree Utilization, x	1.13	1.37										
Capacity (veh/h)	633	622										
Control Delay (s)	98.3	193.1										
Approach Delay (s)	98.3	193.1										
Approach LOS	F	F										
Intersection Summary												
Delay			149.9									
HCM Level of Service			F						***************************************			
Intersection Capacity Ut	lization		82.7%	10	CU Leve	of Serv	vice		Е			
Analysis Period (min)			15									

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			4				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		59			193			117			103	
Travel Time (s)		1.3			4.4			2.7			2.3	
Volume (vph)	0	0	0	0	573	78	76	701	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											

Control Type: Unsignalized