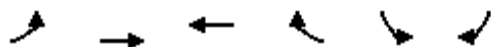


Queues 2: Gibson & Entrance

UNM Gibson Commercial District
2015 AM Peak Hour - Build - With Left Out at Gibson - Improved



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	57	2622	1236	48	35	75
v/c Ratio	0.16	0.66	0.35	0.04	0.14	0.45
Control Delay	3.7	6.4	2.3	0.2	42.6	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	6.4	2.3	0.2	42.6	20.0
Queue Length 50th (ft)	7	248	25	0	22	0
Queue Length 95th (ft)	15	284	45	1	53	45
Internal Link Dist (ft)		630	638		1192	
Turn Bay Length (ft)	250			250		
Base Capacity (vph)	385	3976	3497	1103	257	198
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	24	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.66	0.35	0.04	0.14	0.38
Intersection Summary						

Queues
3: Gibson & University

UNM Gibson Commercial District
2015 AM Peak Hour - Build - With Left Out at Gibson - Improved

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	194	2463	33	28	1181	140	67	90	215	22	137
v/c Ratio	0.54	0.70	0.03	0.21	0.39	0.12	0.28	0.51	0.68	0.12	0.37
Control Delay	15.8	9.3	0.7	24.4	12.9	1.4	39.1	30.9	59.6	43.8	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	9.3	0.7	24.4	12.9	1.4	39.1	30.9	59.6	43.8	14.4
Queue Length 50th (ft)	40	189	0	8	153	0	39	22	76	15	28
Queue Length 95th (ft)	91	229	m1	25	230	21	75	70	117	36	64
Internal Link Dist (ft)		638			1234			706		1327	
Turn Bay Length (ft)	250		250	250		250	250		250		
Base Capacity (vph)	409	3497	1309	133	3027	1190	242	292	327	355	420
Starvation Cap Reductn	0	51	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.71	0.03	0.21	0.39	0.12	0.28	0.31	0.66	0.06	0.33
Intersection Summary											
m Volume for 95th percentile queue is metered by upstream signal.											

HCM Signalized Intersection Capacity Analysis

5: Cesar Chavez & University

UNM Gibson Commercial District
2015 AM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	437	399	195	62	314	91	59	235	50	67	238	76
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
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Flt	1.00	0.95		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4835		1770	3420		1770	3539	1583	1770	3539	1583
Flt Permitted	0.38	1.00		0.39	1.00		0.57	1.00	1.00	0.51	1.00	1.00
Satd. Flow (perm)	701	4835		721	3420		1070	3539	1583	948	3539	1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	491	448	219	70	353	102	63	250	53	73	259	83
RTOR Reduction (vph)	0	104	0	0	29	0	0	0	41	0	0	51
Lane Group Flow (vph)	491	563	0	70	427	0	63	250	12	73	259	32
Turn Type	pm+pt			pm+pt			pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	48.3	38.9		32.9	27.5		13.9	11.5	16.9	15.5	12.3	29.1
Effective Green, g (s)	48.3	38.9		32.9	27.5		13.9	11.5	16.9	15.5	12.3	29.1
Actuated g/C Ratio	0.64	0.52		0.44	0.37		0.19	0.15	0.23	0.21	0.16	0.39
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	691	2508		392	1254		221	543	441	231	580	699
v/s Ratio Prot	c0.16	0.12		0.01	0.12		0.01	0.07	0.00	c0.01	c0.07	0.01
v/s Ratio Perm	c0.30			0.07			0.04		0.01	0.05		0.01
v/c Ratio	0.71	0.22		0.18	0.34		0.29	0.46	0.03	0.32	0.45	0.05
Uniform Delay, d1	7.3	9.8		12.3	17.2		25.8	28.9	22.6	24.6	28.3	14.3
Progression Factor	0.21	0.33		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.2		0.2	0.2		0.7	0.6	0.0	0.8	0.5	0.0
Delay (s)	4.6	3.4		12.5	17.3		26.5	29.5	22.7	25.4	28.8	14.3
Level of Service	A	A		B	B		C	C	C	C	C	B
Approach Delay (s)		3.9			16.7			28.0			25.3	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

6: Cesar Chavez & Langham

UNM Gibson Commercial District
2015 AM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	408	1166	97	4	465	2	41	1	14	1	0	77
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	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5027		1770	5082		1770	1600		1770	1583	
Flt Permitted	0.33	1.00		0.18	1.00		0.70	1.00		0.75	1.00	
Satd. Flow (perm)	615	5027		333	5082		1301	1600		1390	1583	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	474	1356	113	5	541	2	48	1	16	1	0	90
RTOR Reduction (vph)	0	12	0	0	1	0	0	12	0	0	71	0
Lane Group Flow (vph)	474	1457	0	5	542	0	48	5	0	1	19	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	43.0	38.2		23.2	22.4		23.2	19.2		16.8	16.0	
Effective Green, g (s)	43.0	38.2		23.2	22.4		23.2	19.2		16.8	16.0	
Actuated g/C Ratio	0.57	0.51		0.31	0.30		0.31	0.26		0.22	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	608	2560		118	1518		427	410		315	338	
v/s Ratio Prot	c0.17	0.29		0.00	0.11		c0.01	0.00		0.00	0.01	
v/s Ratio Perm	c0.27			0.01			c0.03			0.00		
v/c Ratio	0.78	0.57		0.04	0.36		0.11	0.01		0.00	0.06	
Uniform Delay, d1	10.0	12.7		17.9	20.6		18.6	20.8		22.6	23.5	
Progression Factor	1.18	0.81		0.60	0.62		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.4	0.8		0.1	0.1		0.1	0.1		0.0	0.3	
Delay (s)	17.2	11.0		10.8	12.9		18.7	20.9		22.6	23.8	
Level of Service	B	B		B	B		B	C		C	C	
Approach Delay (s)		12.5			12.9			19.3			23.8	
Approach LOS		B			B			B			C	
Intersection Summary												
HCM Average Control Delay			13.2			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			75.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			50.6%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

7: Cesar Chavez & I-25 NB

UNM Gibson Commercial District

2015 AM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	847	1677	0	0	389	285	49	1	193	0	0	0
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	1.00	0.95			0.95	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (prot)	1770	3539			3505	1568		1776	1583			
Flt Permitted	0.40	1.00			1.00	1.00		0.95	1.00			
Satd. Flow (perm)	753	3539			3505	1568		1776	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	892	1765	0	0	409	300	52	1	203	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	892	1765	0	0	409	300	0	53	203	0	0	0
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt					Free	Perm		Free			
Protected Phases	7	4			8			2				
Permitted Phases	4					Free	2		Free			
Actuated Green, G (s)	126.0	126.0			56.4	150.0		16.0	150.0			
Effective Green, g (s)	126.0	126.0			56.4	150.0		16.0	150.0			
Actuated g/C Ratio	0.84	0.84			0.38	1.00		0.11	1.00			
Clearance Time (s)	4.0	4.0			4.0			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	1077	2973			1318	1568		189	1583			
v/s Ratio Prot	c0.36	0.50			0.12							
v/s Ratio Perm	c0.33					0.19		0.03	0.13			
v/c Ratio	0.83	0.59			0.31	0.19		0.28	0.13			
Uniform Delay, d1	11.3	3.8			33.1	0.0		61.7	0.0			
Progression Factor	1.00	1.00			0.79	1.00		1.00	1.00			
Incremental Delay, d2	5.4	0.9			0.1	0.3		3.7	0.2			
Delay (s)	16.6	4.7			26.4	0.3		65.4	0.2			
Level of Service	B	A			C	A		E	A			
Approach Delay (s)		8.7			15.3			13.7			0.0	
Approach LOS		A			B			B			A	
Intersection Summary												
HCM Average Control Delay			10.4			HCM Level of Service			B			
HCM Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			71.0%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												