Appendix F:

Syncrho Capacity/Queue Analysis

ETHD.00004 Suburban T-Intersection (2 lanes)

Cloverleaf Road (SR 4025) & Mt. Pleasant Road (SR 4010)

Crititcal Headway

Existing/Base/Projected

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	24%	0	-1	0	**4.5**
	PM	SB L	4.3	1	0%	0	-1	0	**4.3**
minor right	AM	WB R	6.2	1	0%	0.1	-1	0	**6.1**
	PM	WB R	6.2	1	13%	0.1	-1	0	**6.2**
minor left	AM	WB L	7.1	1	17%	0.2	-1	0.7	**6.4**
	PM	WB L	7.1	1	20%	0.2	-1	0.7	**6.4**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	24%	**3.2**
	PM	SB L	3	0.9	0%	**3.0**
minor right	AM	WB R	3.1	0.9	0%	**3.1**
	PM	WB R	3.1	0.9	13%	**3.2**
minor left	AM	WB L	3	0.9	17%	**3.2**
	PM	WB L	3	0.9	20%	**3.2**

ETHD.00004 Suburban T-Intersection (2 lanes)

Cloverleaf Road (SR 4025) & Steel Way

Crititcal Headway — Existing/Base

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	0%	0	-2	0	**4.3**
	PM	SB L	4.3	1	25%	0	-2	0	**4.6**
minor right	AM	WB R	6.2	1	0%	0.1	-5	0	**5.7**
	PM	WB R	6.2	1	2%	0.1	-5	0	**5.7**
minor left	AM	WB L	7.1	1	40%	0.2	-5	0.7	**5.8**
	PM	WB L	7.1	1	3%	0.2	-5	0.7	**5.4**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	0%	**3.0**
	PM	SB L	3	0.9	25%	**3.2**
minor right	AM	WB R	3.1	0.9	0%	**3.1**
	PM	WB R	3.1	0.9	2%	**3.1**
minor left	AM	WB L	3	0.9	40%	**3.4**
	PM	WB L	3	0.9	3%	**3.0**

Crititcal Headway — Projected

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	0%	0	-2	0	**4.3**
	PM	SB L	4.3	1	25%	0	-2	0	**4.6**
minor right	AM	WB R	6.2	1	0%	0.1	-5	0	**5.7**
	PM	WB R	6.2	1	2%	0.1	-5	0	**5.7**
minor left	AM	WB L	7.1	1	44%	0.2	-5	0.7	**5.8**
	PM	WB L	7.1	1	10%	0.2	-5	0.7	**5.5**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	0%	**3.0**
	PM	SB L	3	0.9	25%	**3.2**
minor right	AM	WB R	3.1	0.9	0%	**3.1**
	PM	WB R	3.1	0.9	2%	**3.1**
minor left	AM	WB L	3	0.9	44%	**3.4**
	PM	WB L	3	0.9	10%	**3.1**

ETHD.00004 Suburban T-Intersection (2 lanes)

Cloverleaf Road (SR 4025) & Route 283 East Ramps

Crititcal Headway — Existing

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	12%	0	-2	0	**4.4**
	PM	SB L	4.3	1	2%	0	-2	0	**4.3**
minor right	AM	EB R	6.2	1	7%	0.1	-1	0	**6.2**
	PM	EB R	6.2	1	1%	0.1	-1	0	**6.1**
minor left	AM	EB L	7.1	1	22%	0.2	-1	0.7	**6.4**
	PM	EB L	7.1	1	7%	0.2	-1	0.7	**6.3**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	12%	**3.1**
	PM	SB L	3	0.9	2%	**3.0**
minor right	AM	EB R	3.1	0.9	7%	**3.2**
	PM	EB R	3.1	0.9	1%	**3.1**
minor left	AM	EB L	3	0.9	22%	**3.2**
	PM	EB L	3	0.9	7%	**3.1**

Crititcal Headway — Base

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	12%	0	-2	0	**4.4**
	PM	SB L	4.3	1	2%	0	-2	0	**4.3**
minor right	AM	EB R	6.2	1	7%	0.1	-1	0	**6.2**
	PM	EB R	6.2	1	1%	0.1	-1	0	**6.1**
minor left	AM	EB L	7.1	1	22%	0.2	-1	0.7	**6.4**
	PM	EB L	7.1	1	7%	0.2	-1	0.7	**6.3**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	12%	**3.1**
	PM	SB L	3	0.9	2%	**3.0**
minor right	AM	EB R	3.1	0.9	7%	**3.2**
	PM	EB R	3.1	0.9	1%	**3.1**
minor left	AM	EB L	3	0.9	22%	**3.2**
	PM	EB L	3	0.9	7%	**3.1**

Crititcal Headway — Projected

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	SB L	4.3	1	16%	0	-2	0	**4.5**
	PM	SB L	4.3	1	9%	0	-2	0	**4.4**
minor right	AM	EB R	6.2	1	7%	0.1	-1	0	**6.2**
	PM	EB R	6.2	1	1%	0.1	-1	0	**6.1**
minor left	AM	EB L	7.1	1	26%	0.2	-1	0.7	**6.5**
	PM	EB L	7.1	1	16%	0.2	-1	0.7	**6.4**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	SB L	3	0.9	16%	**3.1**
	PM	SB L	3	0.9	9%	**3.1**
minor right	AM	EB R	3.1	0.9	7%	**3.2**
	PM	EB R	3.1	0.9	1%	**3.1**
minor left	AM	EB L	3	0.9	26%	**3.2**
	PM	EB L	3	0.9	16%	**3.1**

ETHD.00004 Suburban T-Intersection (2 lanes)

Cloverleaf Road (SR 4025) & Merts Drive

Crititcal Headway

Existing/Base/Projected

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	NB L	4.3	1	0%	0	-2	0	**4.3**
	PM	NB L	4.3	1	0%	0	-2	0	**4.3**
minor right	AM	EB R	6.2	1	11%	0.1	0	0	**6.3**
	PM	EB R	6.2	1	0%	0.1	0	0	**6.2**
minor left	AM	EB L	7.1	1	0%	0.2	0	0.7	**6.4**
	PM	EB L	7.1	1	13%	0.2	0	0.7	**6.5**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	NB L	3	0.9	0%	**3.0**
	PM	NB L	3	0.9	0%	**3.0**
minor right	AM	EB R	3.1	0.9	11%	**3.2**
	PM	EB R	3.1	0.9	0%	**3.1**
minor left	AM	EB L	3	0.9	0%	**3.0**
	PM	EB L	3	0.9	13%	**3.1**

ETHD.00004 Suburban 4-Leg Intersection (2 lanes)

Schwanger Road/Campus Road & Merts Drive/Schwanger Road

Crititcal Headway

Existing/Base/Projected

		Movement	tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	EB L	4.3	1	17%	0	0	0	**4.5**
	PM	EB L	4.3	1	0%	0	0	0	**4.3**
	AM	WB L	4.3	1	5%	0	-1	0	**4.4**
	PM	WB L	4.3	1	1%	0	-1	0	**4.3**
minor right	AM	NB R	6.2	1	3%	0.1	1	0	**6.3**
	PM	NB R	6.2	1	3%	0.1	1	0	**6.3**
	AM	SB R	6.2	1	4%	0.1	-3	0	**5.9**
	PM	SB R	6.2	1	6%	0.1	-3	0	**6.0**
minor left	AM	NB L	7.1	1	0%	0.2	1	0	**7.3**
	PM	NB L	7.1	1	0%	0.2	1	0	**7.3**
	AM	SB L	7.1	1	5%	0.2	-3	0	**6.6**
	PM	SB L	7.1	1	6%	0.2	-3	0	**6.6**

Follow-up headway

		Movement	t fbase	t fhv	phv	**Follow-up**
major left	AM	EB L	3	0.9	17%	**3.2**
	PM	EB L	3	0.9	0%	**3.0**
	AM	WB L	3	0.9	5%	**3.0**
	PM	WB L	3	0.9	1%	**3.0**
minor right	AM	NB R	3.1	0.9	3%	**3.1**
	PM	NB R	3.1	0.9	3%	**3.1**
	AM	SB R	3.1	0.9	4%	**3.1**
	PM	SB R	3.1	0.9	6%	**3.2**
minor left	AM	NB L	3	0.9	0%	**3.0**
	PM	NB L	3	0.9	0%	**3.0**
	AM	SB L	3	0.9	5%	**3.0**
	PM	SB L	3	0.9	6%	**3.1**

ETHD.00004 Suburban T-Intersection (2 lanes)

Mt. Pleasant Road (SR 4010) & Schwanger Road

Crititcal Headway

Existing/Base/Projected

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	WB L	4.3	1	19%	0	0	0	**4.5**
	PM	WB L	4.3	1	15%	0	0	0	**4.5**
minor right	AM	NB R	6.2	1	5%	0.1	0	0	**6.3**
	PM	NB R	6.2	1	4%	0.1	0	0	**6.2**
minor left	AM	NB L	7.1	1	0%	0.2	0	0.7	**6.4**
	PM	NB L	7.1	1	25%	0.2	0	0.7	**6.7**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	WB L	3	0.9	19%	**3.2**
	PM	WB L	3	0.9	15%	**3.1**
minor right	AM	NB R	3.1	0.9	5%	**3.1**
	PM	NB R	3.1	0.9	4%	**3.1**
minor left	AM	NB L	3	0.9	0%	**3.0**
	PM	NB L	3	0.9	25%	**3.2**

ETHD.00004 Suburban T-Intersection (2 lanes)

Mt. Pleasant Road (SR 4010) & Proposed Eastern Driveway

Crititcal Headway

			tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
					Proposed				
major left	AM	EB L	4.3	1	2%	0	2	0	**4.3**
	PM	EB L	4.3	1	2%	0	2	0	**4.3**
minor right	AM	SB R	6.2	1	2%	0.1	0	0	**6.2**
	PM	SB R	6.2	1	2%	0.1	0	0	**6.2**
minor left	AM	SB L	7.1	1	2%	0.2	0	0.7	**6.4**
	PM	SB L	7.1	1	2%	0.2	0	0.7	**6.4**

Follow-up headway

			t fbase	t fhv	phv	**Follow-up**
major left	AM	EB L	3	0.9	2%	**3.0**
	PM	EB L	3	0.9	2%	**3.0**
minor right	AM	SB R	3.1	0.9	2%	**3.1**
	PM	SB R	3.1	0.9	2%	**3.1**
minor left	AM	SB L	3	0.9	2%	**3.0**
	PM	SB L	3	0.9	2%	**3.0**

ETHD.00004 Suburban 4-Leg Intersection (2 lanes)

Mt. Pleasant Road (SR 4010) & Proposed Western Driveway/Archers Lane

Crititcal Headway

		Movement	tc base	tc hv	phv	t cg	G	t 3lt	**Base Crit**
major left	AM	EB L	4.3	1	2%	0	0	0	**4.3**
	PM	EB L	4.3	1	2%	0	0	0	**4.3**
	AM	WB L	4.3	1	2%	0	-1	0	**4.3**
	PM	WB L	4.3	1	2%	0	-1	0	**4.3**
minor right	AM	NB R	6.2	1	2%	0.1	0	0	**6.2**
	PM	NB R	6.2	1	2%	0.1	0	0	**6.2**
	AM	SB R	6.2	1	2%	0.1	0	0	**6.2**
	PM	SB R	6.2	1	2%	0.1	0	0	**6.2**
minor left	AM	NB L	7.1	1	0%	0.2	0	0	**7.1**
	PM	NB L	7.1	1	0%	0.2	0	0	**7.1**
	AM	SB L	7.1	1	0%	0.2	0	0	**7.1**
	PM	SB L	7.1	1	0%	0.2	0	0	**7.1**

Follow-up headway

		Movement	t fbase	t fhv	phv	**Follow-up**
major left	AM	EB L	3	0.9	2%	**3.0**
	PM	EB L	3	0.9	2%	**3.0**
	AM	WB L	3	0.9	2%	**3.0**
	PM	WB L	3	0.9	2%	**3.0**
minor right	AM	NB R	3.1	0.9	2%	**3.1**
	PM	NB R	3.1	0.9	2%	**3.1**
	AM	SB R	3.1	0.9	2%	**3.1**
	PM	SB R	3.1	0.9	2%	**3.1**
minor left	AM	NB L	3	0.9	0%	**3.0**
	PM	NB L	3	0.9	0%	**3.0**
	AM	SB L	3	0.9	0%	**3.0**
	PM	SB L	3	0.9	0%	**3.0**

2025 Existing Conditions

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	42	6	140	15	21	216
Future Volume (vph)	42	6	140	15	21	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4494		1057			908
Travel Time (s)	76.6		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	0%	19%	27%	24%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	168	0	0	258
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	6	140	15	21	216
Future Vol, veh/h	42	6	140	15	21	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	0	19	27	24	8
Mvmt Flow	46	7	152	16	23	235

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	441	160	0	0	168	0
Stage 1	160	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.37	6.1	-	-	4.5	-
Critical Hdwy Stg 1	5.37	-	-	-	-	-
Critical Hdwy Stg 2	5.37	-	-	-	-	-
Follow-up Hdwy	3.2	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	623	948	-	-	981	-
Stage 1	950	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	607	948	-	-	981	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.17	0	0.78
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	635	159	-
HCM Lane V/C Ratio	-	-	0.082	0.023	-
HCM Ctrl Dly (s/v)	-	-	11.2	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	20	1	140	75	16	266
Future Volume (vph)	20	1	140	75	16	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	0%	21%	0%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	232	0	0	303
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	1	140	75	16	266
Future Vol, veh/h	20	1	140	75	16	266
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	40	0	21	0	0	11
Mvmt Flow	22	1	151	81	17	286

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	511	191	0	0	231	0
Stage 1	191	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Critical Hdwy	5.8	5.7	-	-	4.3	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.4	3.1	-	-	3	-
Pot Cap-1 Maneuver	586	931	-	-	1001	-
Stage 1	897	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	574	931	-	-	1001	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	784	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.41	0	0.49
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	584	102	-
HCM Lane V/C Ratio	-	-	0.039	0.017	-
HCM Ctrl Dly (s/v)	-	-	11.4	8.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

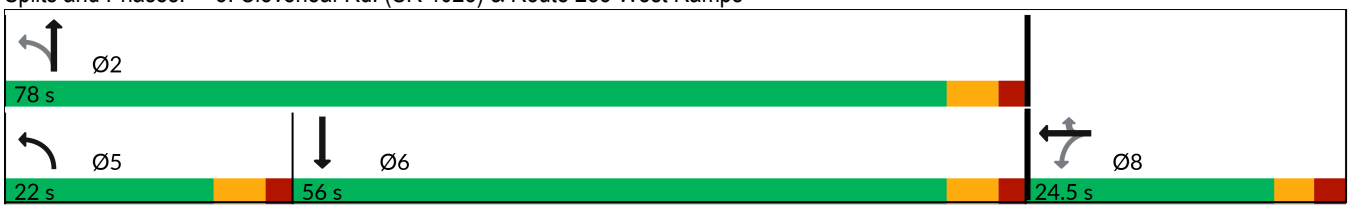
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	326	0	103	548	131	0	0	197	74
Future Volume (vph)	0	0	0	326	0	103	548	131	0	0	197	74
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	7%	0%	15%	4%	17%	0%	0%	14%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	351	111	589	141	0	0	292	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				24.5	24.5	24.5	22.0	78.0			56.0	
Total Split (%)				23.9%	23.9%	23.9%	21.5%	76.1%			54.6%	
Maximum Green (s)				19.0	19.0	19.0	16.0	72.0			50.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.78	0.25	1.04	0.17			0.72	
Control Delay (s/veh)					38.8	6.7	65.5	7.3			32.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					38.8	6.7	65.5	7.3			32.1	
Queue Length 50th (ft)					135	0	~191	26			103	
Queue Length 95th (ft)					#309	36	#387	50			182	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					449	440	564	1456			1102	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.78	0.25	1.04	0.10			0.26	

Intersection Summary

Area Type: Other
Cycle Length: 102.5
Actuated Cycle Length: 69.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	326	0	103	548	131	0	0	197	74
Future Volume (veh/h)	0	0	0	326	0	103	548	131	0	0	197	74
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1775	1875	1661	1722	1539	0	0	1675	1704
Adj Flow Rate, veh/h				351	0	0	589	141	0	0	212	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				7	0	15	4	17	0	0	14	12
Cap, veh/h				439	0		713	927	0	0	423	
Arrive On Green				0.23	0.00	0.00	0.27	0.60	0.00	0.00	0.25	0.00
Sat Flow, veh/h				1785	0	1408	1640	1539	0	0	1675	0
Grp Volume(v), veh/h				351	0	0	589	141	0	0	212	0
Grp Sat Flow(s),veh/h/ln				1785	0	1408	1640	1539	0	0	1675	0
Q Serve(g_s), s				11.6	0.0	0.0	15.4	2.5	0.0	0.0	6.8	0.0
Cycle Q Clear(g_c), s				11.6	0.0	0.0	15.4	2.5	0.0	0.0	6.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				439	0		713	927	0	0	423	
V/C Ratio(X)				0.80	0.00		0.83	0.15	0.00	0.00	0.50	
Avail Cap(c_a), veh/h				569	0		713	1789	0	0	1361	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				22.7	0.0	0.0	10.9	5.5	0.0	0.0	20.1	0.0
Incr Delay (d2), s/veh				6.1	0.0	0.0	7.9	0.3	0.0	0.0	3.3	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.3	0.0	0.0	9.3	1.1	0.0	0.0	4.9	0.0
Unsig. Movement Delay, s/veh						8.30						
LnGrp Delay(d), s/veh				28.8	0.0	8.3	18.7	5.7	0.0	0.0	23.4	0.0
LnGrp LOS				C		A	B	A			C	
Approach Vol, veh/h					431			730			212	
Approach Delay, s/veh					25.0			16.2			23.4	
Approach LOS					C			B			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	42.8		22.0	20.8		20.0
Change Period (Y+Rc), s	6.0		6.0	6.0		5.5
Max Green Setting (Gmax), s	72.0		16.0	50.0		19.0
Max Q Clear Time (g_c+I1), s	5.0		17.9	9.3		13.6
Green Ext Time (p_c), s	3.9		0.0	5.5		0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	20.1
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	274	0	0	0	0	647	558	127	396	0
Future Volume (vph)	32	0	274	0	0	0	0	647	558	127	396	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	22%	0%	7%	0%	0%	0%	0%	5%	3%	12%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	0	308	0	0	0	0	1354	0	143	445	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	274	0	0	0	0	647	558	127	396	0
Future Vol, veh/h	32	0	274	0	0	0	0	647	558	127	396	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	0	7	0	0	0	0	5	3	12	6	0
Mvmt Flow	36	0	308	0	0	0	0	727	627	143	445	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1457	-	445	-	0	0	727	0	0
Stage 1	730	-	-	-	-	-	-	-	-
Stage 2	727	-	-	-	-	-	-	-	-
Critical Hdwy	6.42	-	6.17	-	-	-	4.4	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	3.2	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	149	0	635	0	-	-	643	-	0
Stage 1	509	0	-	0	-	-	-	-	0
Stage 2	511	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	116	0	635	-	-	-	643	-	-
Mov Cap-2 Maneuver	116	0	-	-	-	-	-	-	-
Stage 1	509	0	-	-	-	-	-	-	-
Stage 2	398	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.38	0	2.96
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	116	635	643	-
HCM Lane V/C Ratio	-	-	0.31	0.485	0.222	-
HCM Ctrl Dly (s/v)	-	-	49.4	15.9	12.2	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	1.2	2.6	0.8	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	9	8	1201	653	17
Future Volume (vph)	4	9	8	1201	653	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	0%	5%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	1300	720	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	9	8	1201	653	17
Future Vol, veh/h	4	9	8	1201	653	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	11	0	5	9	6
Mvmt Flow	4	10	9	1291	702	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2020	711	720	0	-	0
Stage 1	711	-	-	-	-	-
Stage 2	1309	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	68	436	675	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	65	436	675	-	-	-
Mov Cap-2 Maneuver	65	-	-	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	277	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	29.85	0.07	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	12	-	159	-	-
HCM Lane V/C Ratio	0.013	-	0.088	-	-
HCM Ctrl Dly (s/v)	10.4	0	29.8	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

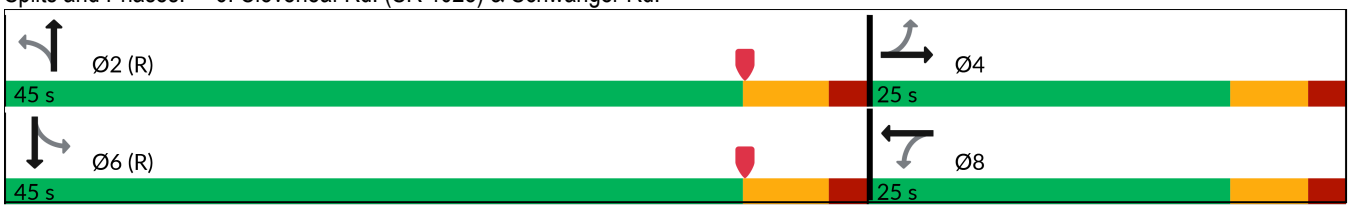
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	291	26	55	7	14	69	24	844	7	16	511	144
Future Volume (vph)	291	26	55	7	14	69	24	844	7	16	511	144
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	310	87	0	7	88	0	26	905	0	17	697	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	25.0	25.0		25.0	25.0		45.0	45.0		45.0	45.0	
Total Split (%)	35.7%	35.7%		35.7%	35.7%		64.3%	64.3%		64.3%	64.3%	
Maximum Green (s)	19.0	19.0		19.0	19.0		38.5	38.5		38.5	38.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.92	0.17		0.02	0.18		0.10	0.97		0.15	0.77	
Control Delay (s/veh)	60.5	9.6		18.3	7.9		8.4	40.4		11.0	18.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	60.5	9.6		18.3	7.9		8.4	40.4		11.0	18.6	
Queue Length 50th (ft)	128	9		2	5		5	342		3	201	
Queue Length 95th (ft)	#271	39		11	35		16	#620		14	#357	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	340	509		331	499		253	933		117	905	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.91	0.17		0.02	0.18		0.10	0.97		0.15	0.77	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	26	55	7	14	69	24	844	7	16	511	144
Future Volume (veh/h)	291	26	55	7	14	69	24	844	7	16	511	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	310	28	28	7	15	58	26	898	7	17	544	135
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	464	271	271	444	93	361	328	1013	8	190	782	194
Arrive On Green	0.29	0.29	0.27	0.29	0.29	0.27	0.56	0.56	0.55	0.56	0.56	0.55
Sat Flow, veh/h	1399	948	948	1261	327	1265	778	1796	14	642	1387	344
Grp Volume(v), veh/h	310	0	56	7	0	73	26	0	905	17	0	679
Grp Sat Flow(s),veh/h/ln	1399	0	1895	1261	0	1592	778	0	1810	642	0	1731
Q Serve(g_s), s	14.8	0.0	1.5	0.3	0.0	2.4	1.7	0.0	30.5	1.6	0.0	19.8
Cycle Q Clear(g_c), s	16.7	0.0	1.5	1.3	0.0	2.4	21.0	0.0	30.5	31.7	0.0	19.8
Prop In Lane	1.00		0.50	1.00		0.79	1.00		0.01	1.00		0.20
Lane Grp Cap(c), veh/h	464	0	541	444	0	455	328	0	1021	190	0	977
V/C Ratio(X)	0.67	0.00	0.10	0.02	0.00	0.16	0.08	0.00	0.89	0.09	0.00	0.70
Avail Cap(c_a), veh/h	464	0	541	444	0	455	328	0	1021	190	0	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	18.6	18.7	0.0	19.0	18.3	0.0	13.3	26.9	0.0	11.0
Incr Delay (d2), s/veh	3.7	0.0	0.1	0.0	0.0	0.2	0.5	0.0	11.3	0.9	0.0	4.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.6	0.0	1.2	0.1	0.0	1.5	0.6	0.0	18.3	0.5	0.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.4	0.0	18.7	18.7	0.0	19.2	18.8	0.0	24.5	27.8	0.0	15.1
LnGrp LOS	C		B	B		B	B		C	C		B
Approach Vol, veh/h		366			80			931			696	
Approach Delay, s/veh		26.9			19.1			24.4			15.4	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	25.0	45.0	25.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	38.5	19.0	38.5	19.0
Max Q Clear Time (g_c+I1), s	32.5	19.2	21.8	4.4
Green Ext Time (p_c), s	5.5	0.0	12.1	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	21.6
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	216	1	19	161	4	0	4	34	38	4	23
Future Volume (vph)	12	216	1	19	161	4	0	4	34	38	4	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	246	0	22	188	0	0	44	0	0	74	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	216	1	19	161	4	0	4	34	38	4	23
Future Vol, veh/h	12	216	1	19	161	4	0	4	34	38	4	23
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	17	2	0	5	1	0	0	0	3	5	0	4
Mvmt Flow	14	245	1	22	183	5	0	5	39	43	5	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	189	0	0	247	0	0	502	505	246	504	503	186
Stage 1	-	-	-	-	-	-	273	273	-	229	229	-
Stage 2	-	-	-	-	-	-	228	232	-	275	274	-
Critical Hdwy	4.5	-	-	4.4	-	-	7.3	6.7	6.33	6.6	5.9	5.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Follow-up Hdwy	3.2	-	-	3	-	-	3	4	3.1	3	4	3.1
Pot Cap-1 Maneuver	965	-	-	982	-	-	531	459	836	583	515	924
Stage 1	-	-	-	-	-	-	832	677	-	926	746	-
Stage 2	-	-	-	-	-	-	884	707	-	879	719	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	964	-	-	982	-	-	493	443	836	530	496	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	493	443	-	530	496	-
Stage 1	-	-	-	-	-	-	820	667	-	904	729	-
Stage 2	-	-	-	-	-	-	834	691	-	821	709	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.46	0.9	9.99	11.58
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	765	964	-	-	982	-	-	621
HCM Lane V/C Ratio	0.056	0.014	-	-	0.022	-	-	0.119
HCM Ctrl Dly (s/v)	10	8.8	-	-	8.7	-	-	11.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	31	4	16	43	2	20
Future Volume (vph)	31	4	16	43	2	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4494			1252	852	
Travel Time (s)	76.6			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	19%	7%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	0	0	80	30	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	4	16	43	2	20
Future Vol, veh/h	31	4	16	43	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	16	0	19	7	0	5
Mvmt Flow	42	5	22	58	3	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	146	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	-	-	4.5	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.2	-	3	3.1
Pot Cap-1 Maneuver	-	-	1083	-	983	1096
Stage 1	-	-	-	-	1143	-
Stage 2	-	-	-	-	1075	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	963	1096
Mov Cap-2 Maneuver	-	-	-	-	963	-
Stage 1	-	-	-	-	1143	-
Stage 2	-	-	-	-	1053	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.28	8.42
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1082	-	-	488	-
HCM Lane V/C Ratio	0.027	-	-	0.02	-
HCM Ctrl Dly (s/v)	8.4	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	103	131	0	0	0
Future Volume (vph)	0	103	131	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	184		118			92
Travel Time (s)	5.0		2.0			1.6
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	15%	17%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	141	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	103	131	0	0	0
Future Vol, veh/h	0	103	131	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	15	17	0	0	0
Mvmt Flow	0	111	141	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	141	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1197	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1197	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.31	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1197
HCM Lane V/C Ratio	-	0.092
HCM Ctrl Dly (s/v)	-	8.3
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	15	273	49	19	165
Future Volume (vph)	15	15	273	49	19	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4494		1057			908
Travel Time (s)	76.6		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	13%	5%	2%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	342	0	0	196
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	15	273	49	19	165
Future Vol, veh/h	15	15	273	49	19	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	20	13	5	2	0	3
Mvmt Flow	16	16	290	52	20	176

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	532	316	0	0	343	0
Stage 1	316	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.4	6.23	-	-	4.3	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	-	-	3	-
Pot Cap-1 Maneuver	548	746	-	-	916	-
Stage 1	803	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	535	746	-	-	916	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	872	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.09	0	0.93
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	623	186	-
HCM Lane V/C Ratio	-	-	0.051	0.022	-
HCM Ctrl Dly (s/v)	-	-	11.1	9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	138	58	240	13	4	176
Future Volume (vph)	138	58	240	13	4	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	11%	31%	25%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	261	0	337	0	0	240
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	138	58	240	13	4	176
Future Vol, veh/h	138	58	240	13	4	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	2	11	31	25	7
Mvmt Flow	184	77	320	17	5	235

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	574	329	0	0	337	0
Stage 1	329	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	5.43	5.72	-	-	4.6	-
Critical Hdwy Stg 1	4.43	-	-	-	-	-
Critical Hdwy Stg 2	4.43	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	635	791	-	-	846	-
Stage 1	915	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	631	791	-	-	846	-
Mov Cap-2 Maneuver	631	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.75	0	0.21
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	671	40	-
HCM Lane V/C Ratio	-	-	0.39	0.006	-
HCM Ctrl Dly (s/v)	-	-	13.7	9.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.8	0	-

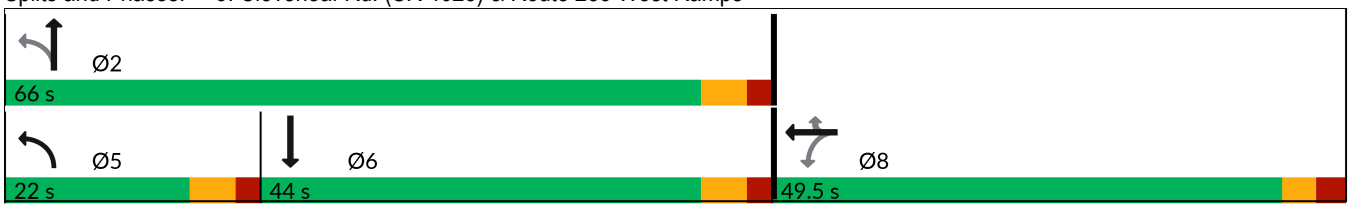
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	569	0	143	283	180	0	0	189	49
Future Volume (vph)	0	0	0	569	0	143	283	180	0	0	189	49
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	6%	6%	7%	0%	0%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	593	149	295	188	0	0	248	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				49.5	49.5	49.5	22.0	66.0			44.0	
Total Split (%)				42.9%	42.9%	42.9%	19.0%	57.1%			38.1%	
Maximum Green (s)				44.0	44.0	44.0	16.0	60.0			38.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.83	0.22	0.70	0.26			0.70	
Control Delay (s/veh)					34.5	3.8	27.5	17.5			43.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					34.5	3.8	27.5	17.5			43.8	
Queue Length 50th (ft)					288	0	118	70			136	
Queue Length 95th (ft)					#544	36	177	114			218	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					819	761	429	1102			725	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.72	0.20	0.69	0.17			0.34	

Intersection Summary	
Area Type:	Other
Cycle Length: 115.5	
Actuated Cycle Length: 90.7	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	569	0	143	283	180	0	0	189	49
Future Volume (veh/h)	0	0	0	569	0	143	283	180	0	0	189	49
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1832	1875	1789	1693	1679	0	0	1832	1761
Adj Flow Rate, veh/h				593	0	0	295	188	0	0	197	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				3	0	6	6	7	0	0	3	8
Cap, veh/h				707	0		524	783	0	0	384	
Arrive On Green				0.38	0.00	0.00	0.18	0.47	0.00	0.00	0.21	0.00
Sat Flow, veh/h				1785	0	1516	1613	1679	0	0	1832	0
Grp Volume(v), veh/h				593	0	0	295	188	0	0	197	0
Grp Sat Flow(s),veh/h/ln				1785	0	1516	1613	1679	0	0	1832	0
Q Serve(g_s), s				20.8	0.0	0.0	8.8	4.6	0.0	0.0	6.6	0.0
Cycle Q Clear(g_c), s				20.8	0.0	0.0	8.8	4.6	0.0	0.0	6.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				707	0		524	783	0	0	384	
V/C Ratio(X)				0.84	0.00		0.56	0.24	0.00	0.00	0.51	
Avail Cap(c_a), veh/h				1166	0		625	1487	0	0	1037	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				19.3	0.0	0.0	14.5	11.0	0.0	0.0	24.1	0.0
Incr Delay (d2), s/veh				2.9	0.0	0.0	1.0	0.6	0.0	0.0	3.8	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				13.5	0.0	0.0	5.1	2.8	0.0	0.0	5.4	0.0
Unsig. Movement Delay, s/veh						8.60						
LnGrp Delay(d), s/veh				22.3	0.0	8.6	15.5	11.6	0.0	0.0	27.9	0.0
LnGrp LOS				C		A	B	B			C	
Approach Vol, veh/h					683			483			197	
Approach Delay, s/veh					20.5			14.0			27.9	
Approach LOS					C			B			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	37.1		17.7	19.5		31.8
Change Period (Y+Rc), s	6.0		6.0	6.0		5.5
Max Green Setting (Gmax), s	60.0		16.0	38.0		44.0
Max Q Clear Time (g_c+I1), s	7.1		11.3	9.1		22.8
Green Ext Time (p_c), s	5.2		0.4	4.4		3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	19.2
HCM 7th LOS	B

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	0	506	0	0	0	0	393	413	84	674	0
Future Volume (vph)	70	0	506	0	0	0	0	393	413	84	674	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	0%	1%	0%	0%	0%	0%	6%	3%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	0	516	0	0	0	0	822	0	86	688	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	23.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	0	506	0	0	0	0	393	413	84	674	0
Future Vol, veh/h	70	0	506	0	0	0	0	393	413	84	674	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	7	0	1	0	0	0	0	6	3	2	2	0
Mvmt Flow	71	0	516	0	0	0	0	401	421	86	688	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1260	-	688	-	0	0	401	0	0
Stage 1	859	-	-	-	-	-	-	-	-
Stage 2	401	-	-	-	-	-	-	-	-
Critical Hdwy	6.27	-	6.11	-	-	-	4.3	-	-
Critical Hdwy Stg 1	5.27	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.27	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	3.1	-	-	-	3	-	-
Pot Cap-1 Maneuver	212	0	~ 479	0	-	-	874	-	0
Stage 1	467	0	-	0	-	-	-	-	0
Stage 2	764	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	191	0	~ 479	-	-	-	874	-	-
Mov Cap-2 Maneuver	191	0	-	-	-	-	-	-	-
Stage 1	467	0	-	-	-	-	-	-	-
Stage 2	689	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	85.89	0	1.06
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	191	479	874	-
HCM Lane V/C Ratio	-	-	0.374	1.078	0.098	-
HCM Ctrl Dly (s/v)	-	-	34.6	93	9.6	-
HCM Lane LOS	-	-	D	F	A	-
HCM 95th %tile Q(veh)	-	-	1.6	16.4	0.3	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	12	4	791	1179	1
Future Volume (vph)	15	12	4	791	1179	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	0%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	837	1242	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	12	4	791	1179	1
Future Vol, veh/h	15	12	4	791	1179	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	13	0	0	4	3	0
Mvmt Flow	16	13	4	833	1241	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2083	1242	1242	0	-	0
Stage 1	1242	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Critical Hdwy	6.53	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	3	-	-	-
Pot Cap-1 Maneuver	57	223	437	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	56	223	437	-	-	-
Mov Cap-2 Maneuver	56	-	-	-	-	-
Stage 1	276	-	-	-	-	-
Stage 2	448	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	68.27	0.07	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	84	-	-
HCM Lane V/C Ratio	0.01	-	0.338	-	-
HCM Ctrl Dly (s/v)	13.3	0	68.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	1.3	-	-

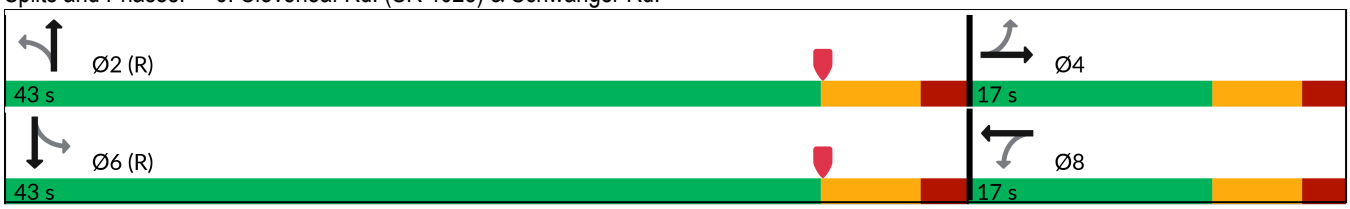
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	38	47	12	39	25	44	579	12	59	813	284
Future Volume (vph)	178	38	47	12	39	25	44	579	12	59	813	284
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	187	89	0	13	67	0	46	622	0	62	1155	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	17.0	17.0		17.0	17.0		43.0	43.0		43.0	43.0	
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%		71.7%	71.7%	
Maximum Green (s)	11.0	11.0		11.0	11.0		36.5	36.5		36.5	36.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.79	0.24		0.06	0.19		0.40	0.59		0.17	1.09	
Control Delay (s/veh)	49.6	13.0		20.3	15.4		18.8	9.4		6.1	69.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	49.6	13.0		20.3	15.4		18.8	9.4		6.1	69.9	
Queue Length 50th (ft)	65	12		4	12		7	113		8	~483	
Queue Length 95th (ft)	#158	44		16	40		#49	195		22	#704	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	243	388		231	366		114	1059		375	1062	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.77	0.23		0.06	0.18		0.40	0.59		0.17	1.09	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	38	47	12	39	25	44	579	12	59	813	284
Future Volume (veh/h)	178	38	47	12	39	25	44	579	12	59	813	284
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	187	40	36	13	41	11	46	609	12	62	856	283
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	379	198	178	333	273	73	124	1129	22	484	854	282
Arrive On Green	0.20	0.20	0.18	0.20	0.20	0.18	0.63	0.63	0.61	0.63	0.63	0.61
Sat Flow, veh/h	1426	1002	902	1238	1382	371	505	1799	35	818	1361	450
Grp Volume(v), veh/h	187	0	76	13	0	52	46	0	621	62	0	1139
Grp Sat Flow(s),veh/h/ln	1426	0	1903	1238	0	1753	505	0	1834	818	0	1811
Q Serve(g_s), s	7.4	0.0	2.0	0.5	0.0	1.5	0.5	0.0	11.4	2.7	0.0	37.6
Cycle Q Clear(g_c), s	8.4	0.0	2.0	2.0	0.0	1.5	37.6	0.0	11.4	13.7	0.0	37.6
Prop In Lane	1.00		0.47	1.00		0.21	1.00		0.02	1.00		0.25
Lane Grp Cap(c), veh/h	379	0	376	333	0	346	124	0	1151	484	0	1136
V/C Ratio(X)	0.49	0.00	0.20	0.04	0.00	0.15	0.37	0.00	0.54	0.13	0.00	1.00
Avail Cap(c_a), veh/h	382	0	381	336	0	351	124	0	1151	484	0	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	20.3	20.8	0.0	20.0	30.0	0.0	6.3	10.0	0.0	11.3
Incr Delay (d2), s/veh	1.0	0.0	0.3	0.0	0.0	0.2	8.3	0.0	1.8	0.5	0.0	27.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	0.0	1.5	0.3	0.0	1.0	1.6	0.0	5.9	0.8	0.0	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.1	0.0	20.6	20.8	0.0	20.2	38.3	0.0	8.1	10.5	0.0	38.6
LnGrp LOS	C		C	C		C	D		A	B		F
Approach Vol, veh/h		263			65			667			1201	
Approach Delay, s/veh		23.1			20.3			10.2			37.1	
Approach LOS		C			C			B			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.1	16.9	43.1	16.9
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	36.5	11.0	36.5	11.0
Max Q Clear Time (g_c+I1), s	13.4	10.9	39.6	4.5
Green Ext Time (p_c), s	14.1	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	26.8
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	258	4	79	210	41	1	8	33	17	8	16
Future Volume (vph)	23	258	4	79	210	41	1	8	33	17	8	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	291	0	88	279	0	0	47	0	0	46	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	258	4	79	210	41	1	8	33	17	8	16
Future Vol, veh/h	23	258	4	79	210	41	1	8	33	17	8	16
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	1	1	2	0	13	3	6	13	6
Mvmt Flow	26	287	4	88	233	46	1	9	37	19	9	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	280	0	0	291	0	0	753	795	290	776	775	257
Stage 1	-	-	-	-	-	-	340	340	-	433	433	-
Stage 2	-	-	-	-	-	-	413	455	-	343	342	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.3	6.83	6.33	6.56	6.03	5.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.117	3.1	3.1	4.117	3.2
Pot Cap-1 Maneuver	963	-	-	955	-	-	351	294	788	387	360	822
Stage 1	-	-	-	-	-	-	760	609	-	713	606	-
Stage 2	-	-	-	-	-	-	688	537	-	789	655	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	962	-	-	955	-	-	296	260	788	316	318	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	260	-	316	318	-
Stage 1	-	-	-	-	-	-	740	592	-	647	549	-
Stage 2	-	-	-	-	-	-	601	487	-	721	638	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.71	2.19	12.12	14.71
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	552	962	-	-	955	-	-	416
HCM Lane V/C Ratio	0.085	0.027	-	-	0.092	-	-	0.109
HCM Ctrl Dly (s/v)	12.1	8.8	-	-	9.2	-	-	14.7
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.3	-	-	0.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	69	6	26	30	4	23
Future Volume (vph)	69	6	26	30	4	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4494			1252	852	
Travel Time (s)	76.6			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	3%	25%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	85	0	0	64	31	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	6	26	30	4	23
Future Vol, veh/h	69	6	26	30	4	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	0	15	3	25	4
Mvmt Flow	78	7	30	34	5	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	85	0	175	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	93	-
Critical Hdwy	-	-	4.5	-	6.65	6.24
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	3.1	-	3.2	3.1
Pot Cap-1 Maneuver	-	-	1083	-	879	1044
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1013	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	855	1044
Mov Cap-2 Maneuver	-	-	-	-	855	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	985	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.91	8.67
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1011	-	-	836	-
HCM Lane V/C Ratio	0.03	-	-	0.027	-
HCM Ctrl Dly (s/v)	8.7	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	143	180	0	0	0
Future Volume (vph)	0	143	180	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	278		122			129
Travel Time (s)	7.6		2.1			2.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	149	188	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	143	180	0	0	0
Future Vol, veh/h	0	143	180	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	6	7	0	0	0
Mvmt Flow	0	149	188	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	188	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1141	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1141	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.63	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1141
HCM Lane V/C Ratio	-	0.131
HCM Ctrl Dly (s/v)	-	8.6
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.4

2030 Base (No-Build) Conditions

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	46	7	160	17	23	246
Future Volume (vph)	46	7	160	17	23	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4452		1084			881
Travel Time (s)	75.9		18.5			17.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	0%	19%	27%	24%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	192	0	0	292
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	7	160	17	23	246
Future Vol, veh/h	46	7	160	17	23	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	0	19	27	24	8
Mvmt Flow	50	8	174	18	25	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	501	183	0	0	192	0
Stage 1	183	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Critical Hdwy	6.37	6.1	-	-	4.5	-
Critical Hdwy Stg 1	5.37	-	-	-	-	-
Critical Hdwy Stg 2	5.37	-	-	-	-	-
Follow-up Hdwy	3.2	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	575	920	-	-	962	-
Stage 1	928	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	557	920	-	-	962	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	780	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.79	0	0.76
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	154	-
HCM Lane V/C Ratio	-	-	0.098	0.026	-
HCM Ctrl Dly (s/v)	-	-	11.8	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	22	1	160	83	18	301
Future Volume (vph)	22	1	160	83	18	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1084
Travel Time (s)	23.7		12.2			18.5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	0%	21%	0%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	261	0	0	343
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	1	160	83	18	301
Future Vol, veh/h	22	1	160	83	18	301
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	40	0	21	0	0	11
Mvmt Flow	24	1	172	89	19	324

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	579	217	0	0	261	0
Stage 1	217	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Critical Hdwy	5.8	5.7	-	-	4.3	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.4	3.1	-	-	3	-
Pot Cap-1 Maneuver	541	903	-	-	977	-
Stage 1	877	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	528	903	-	-	977	-
Mov Cap-2 Maneuver	528	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.02	0	0.49
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	537	102	-
HCM Lane V/C Ratio	-	-	0.046	0.02	-
HCM Ctrl Dly (s/v)	-	-	12	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

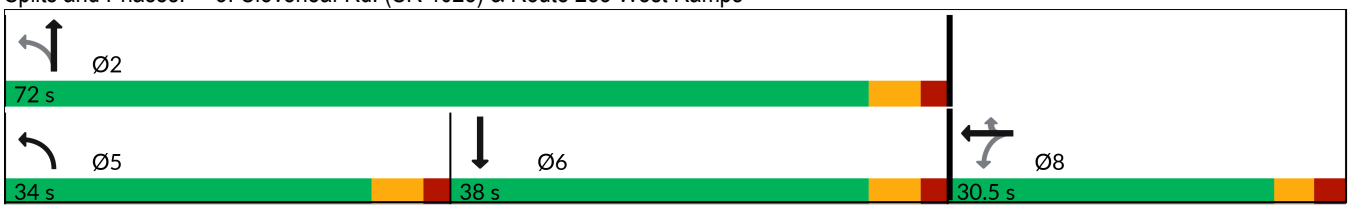
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	378	0	113	626	150	0	0	225	81
Future Volume (vph)	0	0	0	378	0	113	626	150	0	0	225	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	7%	0%	15%	4%	17%	0%	0%	14%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	406	122	673	161	0	0	329	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				30.5	30.5	30.5	34.0	72.0			38.0	
Total Split (%)				29.8%	29.8%	29.8%	33.2%	70.2%			37.1%	
Maximum Green (s)				25.0	25.0	25.0	28.0	66.0			32.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.94	0.28	1.08	0.18			0.83	
Control Delay (s/veh)					66.1	7.5	81.0	7.9			48.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					66.1	7.5	81.0	7.9			48.6	
Queue Length 50th (ft)					237	0	~363	38			174	
Queue Length 95th (ft)					#471	45	#611	66			275	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					433	436	622	1054			539	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.94	0.28	1.08	0.15			0.61	

Intersection Summary	
Area Type:	Other
Cycle Length: 102.5	
Actuated Cycle Length: 94	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	378	0	113	626	150	0	0	225	81
Future Volume (veh/h)	0	0	0	378	0	113	626	150	0	0	225	81
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1775	1875	1661	1722	1539	0	0	1675	1704
Adj Flow Rate, veh/h				406	0	0	673	161	0	0	242	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				7	0	15	4	17	0	0	14	12
Cap, veh/h				473	0		735	955	0	0	378	
Arrive On Green				0.25	0.00	0.00	0.33	0.62	0.00	0.00	0.23	0.00
Sat Flow, veh/h				1785	0	1408	1640	1539	0	0	1675	0
Grp Volume(v), veh/h				406	0	0	673	161	0	0	242	0
Grp Sat Flow(s),veh/h/ln				1785	0	1408	1640	1539	0	0	1675	0
Q Serve(g_s), s				18.0	0.0	0.0	23.6	3.7	0.0	0.0	10.8	0.0
Cycle Q Clear(g_c), s				18.0	0.0	0.0	23.6	3.7	0.0	0.0	10.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				473	0		735	955	0	0	378	
V/C Ratio(X)				0.86	0.00		0.92	0.17	0.00	0.00	0.64	
Avail Cap(c_a), veh/h				560	0		760	1243	0	0	667	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				29.5	0.0	0.0	13.9	6.7	0.0	0.0	29.0	0.0
Incr Delay (d2), s/veh				11.2	0.0	0.0	15.5	0.3	0.0	0.0	6.4	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				14.0	0.0	0.0	15.3	1.9	0.0	0.0	8.3	0.0
Unsig. Movement Delay, s/veh						8.40						
LnGrp Delay(d), s/veh				40.7	0.0	8.4	29.4	7.0	0.0	0.0	35.4	0.0
LnGrp LOS				D		A	C	A			D	
Approach Vol, veh/h					497			834			242	
Approach Delay, s/veh					34.8			25.1			35.4	
Approach LOS					C			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	56.5	32.7	23.7	26.5
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	66.0	28.0	32.0	25.0
Max Q Clear Time (g_c+I1), s	6.2	26.1	13.3	20.0
Green Ext Time (p_c), s	4.5	0.6	4.4	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	29.8
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	0	324	0	0	0	0	741	644	140	463	0
Future Volume (vph)	35	0	324	0	0	0	0	741	644	140	463	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	22%	0%	7%	0%	0%	0%	0%	5%	3%	12%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	0	364	0	0	0	0	1557	0	157	520	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	0	324	0	0	0	0	741	644	140	463	0
Future Vol, veh/h	35	0	324	0	0	0	0	741	644	140	463	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	0	7	0	0	0	0	5	3	12	6	0
Mvmt Flow	39	0	364	0	0	0	0	833	724	157	520	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1667	-	520	-	0	0	833	0	0
Stage 1	835	-	-	-	-	-	-	-	-
Stage 2	833	-	-	-	-	-	-	-	-
Critical Hdwy	6.42	-	6.17	-	-	-	4.4	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	3.2	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	110	0	576	0	-	-	588	-	0
Stage 1	453	0	-	0	-	-	-	-	0
Stage 2	455	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	81	0	576	-	-	-	588	-	-
Mov Cap-2 Maneuver	81	0	-	-	-	-	-	-	-
Stage 1	453	0	-	-	-	-	-	-	-
Stage 2	333	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	27.67	0	3.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	81	576	588	-
HCM Lane V/C Ratio	-	-	0.487	0.632	0.267	-
HCM Ctrl Dly (s/v)	-	-	86.1	21.4	13.3	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2	4.4	1.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	10	9	1380	768	19
Future Volume (vph)	4	10	9	1380	768	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	0%	5%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	0	1494	846	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	10	9	1380	768	19
Future Vol, veh/h	4	10	9	1380	768	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	11	0	5	9	6
Mvmt Flow	4	11	10	1484	826	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2339	836	846	0	-	0
Stage 1	836	-	-	-	-	-
Stage 2	1503	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	43	368	609	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	39	368	609	-	-	-
Mov Cap-2 Maneuver	39	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	221	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	43.9	0.07	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	12	-	107	-	-
HCM Lane V/C Ratio	0.016	-	0.14	-	-
HCM Ctrl Dly (s/v)	11	0	43.9	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

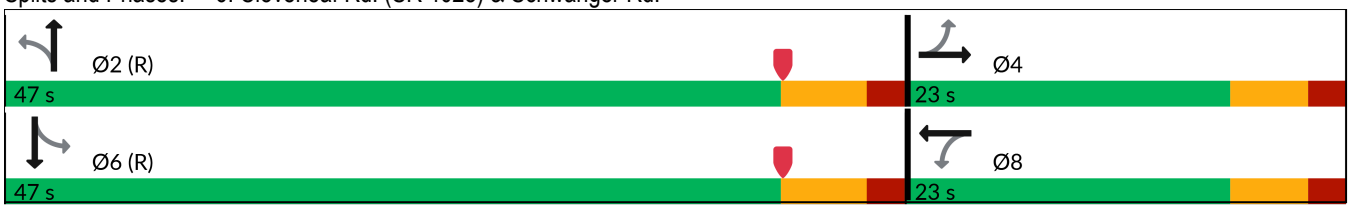
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	320	29	62	8	15	76	26	987	8	18	612	158
Future Volume (vph)	320	29	62	8	15	76	26	987	8	18	612	158
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	340	97	0	9	97	0	28	1059	0	19	819	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	23.0	23.0		23.0	23.0		47.0	47.0		47.0	47.0	
Total Split (%)	32.9%	32.9%		32.9%	32.9%		67.1%	67.1%		67.1%	67.1%	
Maximum Green (s)	17.0	17.0		17.0	17.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.12	0.21		0.03	0.21		0.14	1.09		0.20	0.87	
Control Delay (s/veh)	116.4	10.3		20.0	8.5		8.4	73.0		12.5	23.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	116.4	10.3		20.0	8.5		8.4	73.0		12.5	23.8	
Queue Length 50th (ft)	~172	10		3	5		5	~526		3	254	
Queue Length 95th (ft)	#321	44		13	38		17	#753		16	#517	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	304	469		295	462		202	975		97	946	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.12	0.21		0.03	0.21		0.14	1.09		0.20	0.87	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	29	62	8	15	76	26	987	8	18	612	158
Future Volume (veh/h)	320	29	62	8	15	76	26	987	8	18	612	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	340	31	35	9	16	66	28	1050	9	19	651	150
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	413	228	257	399	80	329	276	1064	9	117	836	193
Arrive On Green	0.26	0.26	0.24	0.26	0.26	0.24	0.59	0.59	0.58	0.59	0.59	0.58
Sat Flow, veh/h	1388	886	1000	1249	310	1279	694	1794	15	555	1409	325
Grp Volume(v), veh/h	340	0	66	9	0	82	28	0	1059	19	0	801
Grp Sat Flow(s),veh/h/ln	1388	0	1886	1249	0	1589	694	0	1809	555	0	1734
Q Serve(g_s), s	15.6	0.0	1.9	0.4	0.0	2.9	2.2	0.0	40.2	1.8	0.0	24.5
Cycle Q Clear(g_c), s	18.0	0.0	1.9	1.8	0.0	2.9	26.2	0.0	40.2	41.5	0.0	24.5
Prop In Lane	1.00		0.53	1.00		0.80	1.00		0.01	1.00		0.19
Lane Grp Cap(c), veh/h	413	0	485	399	0	409	276	0	1073	117	0	1028
V/C Ratio(X)	0.82	0.00	0.14	0.02	0.00	0.20	0.10	0.00	0.99	0.16	0.00	0.78
Avail Cap(c_a), veh/h	413	0	485	399	0	409	276	0	1073	117	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	20.2	20.5	0.0	20.7	20.5	0.0	14.0	34.3	0.0	10.9
Incr Delay (d2), s/veh	12.7	0.0	0.1	0.0	0.0	0.2	0.7	0.0	24.6	3.0	0.0	5.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.2	0.0	1.4	0.2	0.0	1.8	0.7	0.0	26.1	0.7	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.6	0.0	20.4	20.5	0.0	20.9	21.3	0.0	38.6	37.3	0.0	16.7
LnGrp LOS	D		C	C		C	C		D	D		B
Approach Vol, veh/h		406			91			1087			820	
Approach Delay, s/veh		37.3			20.9			38.1			17.2	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	23.0	47.0	23.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	17.0	40.5	17.0
Max Q Clear Time (g_c+I1), s	42.2	20.5	26.5	4.9
Green Ext Time (p_c), s	0.0	0.0	11.6	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	30.2
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	239	1	21	177	4	0	4	37	42	4	25
Future Volume (vph)	13	239	1	21	177	4	0	4	37	42	4	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	273	0	24	206	0	0	47	0	0	81	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	239	1	21	177	4	0	4	37	42	4	25
Future Vol, veh/h	13	239	1	21	177	4	0	4	37	42	4	25
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	17	2	0	5	1	0	0	0	3	5	0	4
Mvmt Flow	15	272	1	24	201	5	0	5	42	48	5	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	273	0	0	553	556	272	556	554	204
Stage 1	-	-	-	-	-	-	302	302	-	252	252	-
Stage 2	-	-	-	-	-	-	251	254	-	303	302	-
Critical Hdwy	4.5	-	-	4.4	-	-	7.3	6.7	6.33	6.6	5.9	5.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Follow-up Hdwy	3.2	-	-	3	-	-	3	4	3.1	3	4	3.1
Pot Cap-1 Maneuver	951	-	-	961	-	-	488	429	807	541	486	904
Stage 1	-	-	-	-	-	-	800	657	-	902	732	-
Stage 2	-	-	-	-	-	-	857	691	-	851	702	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	950	-	-	961	-	-	450	411	807	487	466	903
Mov Cap-2 Maneuver	-	-	-	-	-	-	450	411	-	487	466	-
Stage 1	-	-	-	-	-	-	788	647	-	879	713	-
Stage 2	-	-	-	-	-	-	804	673	-	788	691	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.45	0.92	10.21	12.22
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	738	950	-	-	961	-	-	579
HCM Lane V/C Ratio	0.063	0.016	-	-	0.025	-	-	0.139
HCM Ctrl Dly (s/v)	10.2	8.8	-	-	8.8	-	-	12.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	34	4	18	47	2	22
Future Volume (vph)	34	4	18	47	2	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4452			1252	852	
Travel Time (s)	75.9			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	19%	7%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	0	88	33	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	34	4	18	47	2	22
Future Vol, veh/h	34	4	18	47	2	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	16	0	19	7	0	5
Mvmt Flow	46	5	24	64	3	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	161	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	-	-	4.5	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.2	-	3	3.1
Pot Cap-1 Maneuver	-	-	1079	-	963	1090
Stage 1	-	-	-	-	1138	-
Stage 2	-	-	-	-	1062	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	941	1090
Mov Cap-2 Maneuver	-	-	-	-	941	-
Stage 1	-	-	-	-	1138	-
Stage 2	-	-	-	-	1037	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.33	8.45
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1076	-	-	498	-
HCM Lane V/C Ratio	0.03	-	-	0.023	-
HCM Ctrl Dly (s/v)	8.5	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	113	150	0	0	0
Future Volume (vph)	0	113	150	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	184		118			92
Travel Time (s)	5.0		2.0			1.6
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	15%	17%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	122	161	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑			
Traffic Vol, veh/h	0	113	150	0	0	0
Future Vol, veh/h	0	113	150	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	15	17	0	0	0
Mvmt Flow	0	122	161	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	161	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1172	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1172	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.43	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1172
HCM Lane V/C Ratio	-	0.104
HCM Ctrl Dly (s/v)	-	8.4
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	17	309	54	21	189
Future Volume (vph)	17	17	309	54	21	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4447		1057			908
Travel Time (s)	75.8		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	13%	5%	2%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	0	386	0	0	223
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	17	309	54	21	189
Future Vol, veh/h	17	17	309	54	21	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	20	13	5	2	0	3
Mvmt Flow	18	18	329	57	22	201

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	603	357	0	0	386	0
Stage 1	357	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Critical Hdwy	6.4	6.23	-	-	4.3	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	-	-	3	-
Pot Cap-1 Maneuver	497	707	-	-	885	-
Stage 1	768	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	483	707	-	-	885	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.69	0	0.92
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	574	180	-
HCM Lane V/C Ratio	-	-	0.063	0.025	-
HCM Ctrl Dly (s/v)	-	-	11.7	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	152	64	273	14	4	201
Future Volume (vph)	152	64	273	14	4	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	11%	31%	25%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	383	0	0	273
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	152	64	273	14	4	201
Future Vol, veh/h	152	64	273	14	4	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	2	11	31	25	7
Mvmt Flow	203	85	364	19	5	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	652	373	0	0	383	0
Stage 1	373	-	-	-	-	-
Stage 2	279	-	-	-	-	-
Critical Hdwy	5.43	5.72	-	-	4.6	-
Critical Hdwy Stg 1	4.43	-	-	-	-	-
Critical Hdwy Stg 2	4.43	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	582	750	-	-	814	-
Stage 1	882	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	577	750	-	-	814	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.75	0	0.18
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	620	35	-
HCM Lane V/C Ratio	-	-	0.465	0.007	-
HCM Ctrl Dly (s/v)	-	-	15.8	9.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.5	0	-

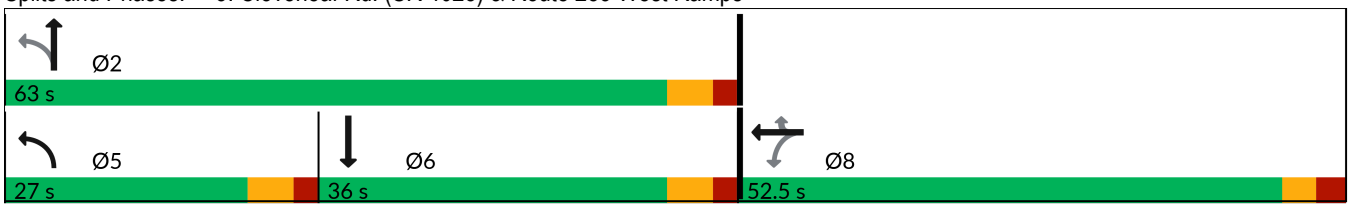
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	658	0	157	338	207	0	0	215	54
Future Volume (vph)	0	0	0	658	0	157	338	207	0	0	215	54
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	6%	6%	7%	0%	0%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	685	164	352	216	0	0	280	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				52.5	52.5	52.5	27.0	63.0			36.0	
Total Split (%)				45.5%	45.5%	45.5%	23.4%	54.5%			31.2%	
Maximum Green (s)				47.0	47.0	47.0	21.0	57.0			30.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.94	0.23	0.84	0.29			0.80	
Control Delay (s/veh)					50.9	4.1	39.5	18.9			55.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					50.9	4.1	39.5	18.9			55.6	
Queue Length 50th (ft)					438	0	158	88			176	
Queue Length 95th (ft)					#769	41	#267	138			271	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					732	705	422	879			487	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.94	0.23	0.83	0.25			0.57	

Intersection Summary	
Area Type:	Other
Cycle Length: 115.5	
Actuated Cycle Length: 106.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	658	0	157	338	207	0	0	215	54
Future Volume (veh/h)	0	0	0	658	0	157	338	207	0	0	215	54
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1832	1875	1789	1693	1679	0	0	1832	1761
Adj Flow Rate, veh/h				685	0	0	352	216	0	0	224	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				3	0	6	6	7	0	0	3	8
Cap, veh/h				770	0		503	772	0	0	360	
Arrive On Green				0.42	0.00	0.00	0.21	0.46	0.00	0.00	0.20	0.00
Sat Flow, veh/h				1785	0	1516	1613	1679	0	0	1832	0
Grp Volume(v), veh/h				685	0	0	352	216	0	0	224	0
Grp Sat Flow(s),veh/h/ln				1785	0	1516	1613	1679	0	0	1832	0
Q Serve(g_s), s				30.9	0.0	0.0	13.8	6.9	0.0	0.0	9.7	0.0
Cycle Q Clear(g_c), s				30.9	0.0	0.0	13.8	6.9	0.0	0.0	9.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				770	0		503	772	0	0	360	
V/C Ratio(X)				0.89	0.00		0.70	0.28	0.00	0.00	0.62	
Avail Cap(c_a), veh/h				986	0		580	1120	0	0	653	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.3	0.0	0.0	19.3	14.6	0.0	0.0	32.0	0.0
Incr Delay (d2), s/veh				8.4	0.0	0.0	3.1	0.7	0.0	0.0	6.2	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				20.5	0.0	0.0	8.8	4.6	0.0	0.0	8.3	0.0
Unsig. Movement Delay, s/veh						8.80						
LnGrp Delay(d), s/veh				31.8	0.0	8.8	22.4	15.3	0.0	0.0	38.2	0.0
LnGrp LOS				C		A	C	B			D	
Approach Vol, veh/h					790			568			224	
Approach Delay, s/veh					28.7			19.7			38.2	
Approach LOS					C			B			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	45.0	22.9	22.1	42.0
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	57.0	21.0	30.0	47.0
Max Q Clear Time (g_c+I1), s	9.4	16.3	12.2	32.9
Green Ext Time (p_c), s	5.9	0.5	3.9	3.6

Intersection Summary	
HCM 7th Control Delay, s/veh	26.8
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	0	580	0	0	0	0	468	480	92	780	0
Future Volume (vph)	77	0	580	0	0	0	0	468	480	92	780	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	0%	1%	0%	0%	0%	0%	6%	4%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	0	592	0	0	0	0	968	0	94	796	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	56.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	0	580	0	0	0	0	468	480	92	780	0
Future Vol, veh/h	77	0	580	0	0	0	0	468	480	92	780	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	7	0	1	0	0	0	0	6	4	2	3	0
Mvmt Flow	79	0	592	0	0	0	0	478	490	94	796	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1461	-	796	-	0	0	478	0	0
Stage 1	984	-	-	-	-	-	-	-	-
Stage 2	478	-	-	-	-	-	-	-	-
Critical Hdwy	6.27	-	6.11	-	-	-	4.3	-	-
Critical Hdwy Stg 1	5.27	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.27	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	3.1	-	-	-	3	-	-
Pot Cap-1 Maneuver	160	0	~ 416	0	-	-	822	-	0
Stage 1	408	0	-	0	-	-	-	-	0
Stage 2	704	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	142	0	~ 416	-	-	-	822	-	-
Mov Cap-2 Maneuver	142	0	-	-	-	-	-	-	-
Stage 1	408	0	-	-	-	-	-	-	-
Stage 2	624	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	210.01	0	1.05
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	142	416	822	-
HCM Lane V/C Ratio	-	-	0.554	1.424	0.114	-
HCM Ctrl Dly (s/v)	-	-	58	230.2	9.9	-
HCM Lane LOS	-	-	F	F	A	-
HCM 95th %tile Q(veh)	-	-	2.8	29.5	0.4	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	13	4	932	1359	1
Future Volume (vph)	17	13	4	932	1359	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	0%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	985	1432	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	13	4	932	1359	1
Future Vol, veh/h	17	13	4	932	1359	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	13	0	0	4	3	0
Mvmt Flow	18	14	4	981	1431	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2421	1431	1432	0	-	0
Stage 1	1431	-	-	-	-	-
Stage 2	989	-	-	-	-	-
Critical Hdwy	6.53	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	3	-	-	-
Pot Cap-1 Maneuver	34	172	372	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	172	372	-	-	-
Mov Cap-2 Maneuver	33	-	-	-	-	-
Stage 1	219	-	-	-	-	-
Stage 2	377	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	152.64	0.06	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	8	-	51	-	-
HCM Lane V/C Ratio	0.011	-	0.615	-	-
HCM Ctrl Dly (s/v)	14.8	0	152.6	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	2.4	-	-

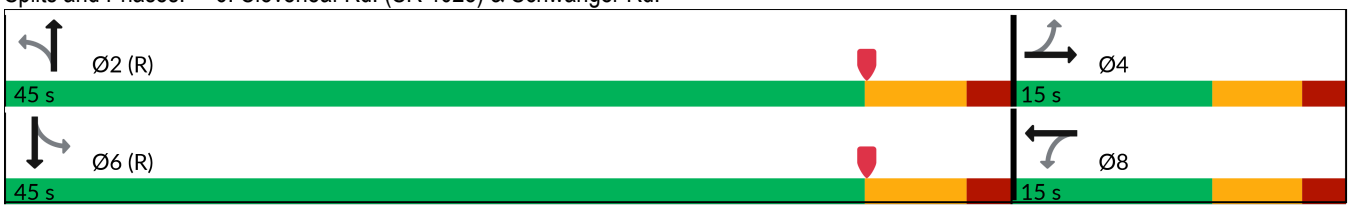
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	42	52	13	43	28	49	699	13	65	956	312
Future Volume (vph)	196	42	52	13	43	28	49	699	13	65	956	312
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	206	99	0	14	74	0	52	750	0	68	1334	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	15.0	15.0		15.0	15.0		45.0	45.0		45.0	45.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%		75.0%	75.0%	
Maximum Green (s)	9.0	9.0		9.0	9.0		38.5	38.5		38.5	38.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.02	0.29		0.07	0.24		0.46	0.68		0.21	1.20	
Control Delay (s/veh)	101.3	14.6		22.3	17.1		22.6	10.3		6.1	115.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	101.3	14.6		22.3	17.1		22.6	10.3		6.1	115.8	
Queue Length 50th (ft)	~78	14		4	14		8	136		8	~605	
Queue Length 95th (ft)	#194	49		18	45		#57	242		23	#835	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	201	337		191	311		113	1105		320	1109	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.02	0.29		0.07	0.24		0.46	0.68		0.21	1.20	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	42	52	13	43	28	49	699	13	65	956	312
Future Volume (veh/h)	196	42	52	13	43	28	49	699	13	65	956	312
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	206	44	42	14	45	14	52	736	13	68	1006	312
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	326	162	155	286	222	69	124	1187	21	433	912	283
Arrive On Green	0.17	0.17	0.15	0.17	0.17	0.15	0.66	0.66	0.64	0.66	0.66	0.64
Sat Flow, veh/h	1417	971	927	1227	1331	414	426	1803	32	727	1385	430
Grp Volume(v), veh/h	206	0	86	14	0	59	52	0	749	68	0	1318
Grp Sat Flow(s),veh/h/ln	1417	0	1899	1227	0	1745	426	0	1835	727	0	1815
Q Serve(g_s), s	8.7	0.0	2.4	0.6	0.0	1.8	0.5	0.0	14.1	3.5	0.0	39.5
Cycle Q Clear(g_c), s	10.0	0.0	2.4	2.5	0.0	1.8	39.5	0.0	14.1	17.2	0.0	39.5
Prop In Lane	1.00		0.49	1.00		0.24	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	326	0	316	286	0	291	124	0	1208	433	0	1195
V/C Ratio(X)	0.63	0.00	0.27	0.05	0.00	0.20	0.42	0.00	0.62	0.16	0.00	1.10
Avail Cap(c_a), veh/h	326	0	316	286	0	291	124	0	1208	433	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	22.0	22.7	0.0	21.7	30.0	0.0	5.9	10.7	0.0	10.4
Incr Delay (d2), s/veh	3.9	0.0	0.5	0.1	0.0	0.3	10.2	0.0	2.4	0.8	0.0	59.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	1.8	0.3	0.0	1.2	1.9	0.0	6.8	1.0	0.0	39.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.5	0.0	22.5	22.8	0.0	22.0	40.2	0.0	8.3	11.5	0.0	69.4
LnGrp LOS	C		C	C		C	D		A	B		F
Approach Vol, veh/h		292			73			801			1386	
Approach Delay, s/veh		27.4			22.2			10.4			66.6	
Approach LOS		C			C			B			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	15.0	45.0	15.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	38.5	9.0	38.5	9.0
Max Q Clear Time (g_c+I1), s	16.1	12.5	41.5	5.0
Green Ext Time (p_c), s	16.3	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	43.2
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	284	4	87	231	45	1	9	36	19	9	18
Future Volume (vph)	25	284	4	87	231	45	1	9	36	19	9	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	320	0	97	307	0	0	51	0	0	51	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	284	4	87	231	45	1	9	36	19	9	18
Future Vol, veh/h	25	284	4	87	231	45	1	9	36	19	9	18
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	1	1	2	0	13	3	6	13	6
Mvmt Flow	28	316	4	97	257	50	1	10	40	21	10	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	308	0	0	320	0	0	828	874	319	853	852	283
Stage 1	-	-	-	-	-	-	373	373	-	476	476	-
Stage 2	-	-	-	-	-	-	455	501	-	377	376	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.3	6.83	6.33	6.56	6.03	5.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.117	3.1	3.1	4.117	3.2
Pot Cap-1 Maneuver	942	-	-	933	-	-	310	263	758	346	329	797
Stage 1	-	-	-	-	-	-	727	587	-	679	583	-
Stage 2	-	-	-	-	-	-	650	510	-	760	636	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	941	-	-	933	-	-	255	229	758	274	286	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	255	229	-	274	286	-
Stage 1	-	-	-	-	-	-	705	570	-	608	522	-
Stage 2	-	-	-	-	-	-	557	457	-	686	618	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.71	2.23	12.9	16.19
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	941	-	-	933	-	-	373
HCM Lane V/C Ratio	0.101	0.03	-	-	0.104	-	-	0.137
HCM Ctrl Dly (s/v)	12.9	8.9	-	-	9.3	-	-	16.2
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.3	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	76	7	29	33	4	25
Future Volume (vph)	76	7	29	33	4	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4447			1252	852	
Travel Time (s)	75.8			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	3%	25%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	71	33	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	7	29	33	4	25
Future Vol, veh/h	76	7	29	33	4	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	0	15	3	25	4
Mvmt Flow	86	8	33	38	5	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	94	0	194	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	-	-	4.5	-	6.65	6.24
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	3.1	-	3.2	3.1
Pot Cap-1 Maneuver	-	-	1075	-	856	1032
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1075	-	829	1032
Mov Cap-2 Maneuver	-	-	-	-	829	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.96	8.73
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	998	-	-	842	-
HCM Lane V/C Ratio	0.033	-	-	0.031	-
HCM Ctrl Dly (s/v)	8.7	-	-	8.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	157	207	0	0	0
Future Volume (vph)	0	157	207	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	278		122			129
Travel Time (s)	7.6		2.1			2.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	164	216	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑			
Traffic Vol, veh/h	0	157	207	0	0	0
Future Vol, veh/h	0	157	207	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	6	7	0	0	0
Mvmt Flow	0	164	216	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	216	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1108	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1108	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.81	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1108
HCM Lane V/C Ratio	-	0.148
HCM Ctrl Dly (s/v)	-	8.8
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.5

2030 Projected (Build) Conditions

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	10	160	40	32	246
Future Volume (vph)	53	10	160	40	32	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	1309		1084			881
Travel Time (s)	22.3		18.5			17.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	0%	19%	27%	24%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	0	217	0	0	302
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	10	160	40	32	246
Future Vol, veh/h	53	10	160	40	32	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	0	19	27	24	8
Mvmt Flow	58	11	174	43	35	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	533	196	0	0	217	0
Stage 1	196	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.37	6.1	-	-	4.5	-
Critical Hdwy Stg 1	5.37	-	-	-	-	-
Critical Hdwy Stg 2	5.37	-	-	-	-	-
Follow-up Hdwy	3.2	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	550	906	-	-	943	-
Stage 1	915	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	526	906	-	-	943	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.26	0	1.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	564	207	-
HCM Lane V/C Ratio	-	-	0.121	0.037	-
HCM Ctrl Dly (s/v)	-	-	12.3	9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	61	1	183	173	18	308
Future Volume (vph)	61	1	183	173	18	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1084
Travel Time (s)	23.7		12.2			18.5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	44%	0%	21%	14%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	0	383	0	0	350
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	1	183	173	18	308
Future Vol, veh/h	61	1	183	173	18	308
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	44	0	21	14	0	11
Mvmt Flow	66	1	197	186	19	331

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	660	290	0	0	383	0
Stage 1	290	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	5.84	5.7	-	-	4.3	-
Critical Hdwy Stg 1	4.84	-	-	-	-	-
Critical Hdwy Stg 2	4.84	-	-	-	-	-
Follow-up Hdwy	3.4	3.1	-	-	3	-
Pot Cap-1 Maneuver	488	829	-	-	887	-
Stage 1	820	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	475	829	-	-	887	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	743	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.74	0	0.51
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	478	99	-
HCM Lane V/C Ratio	-	-	0.139	0.022	-
HCM Ctrl Dly (s/v)	-	-	13.7	9.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

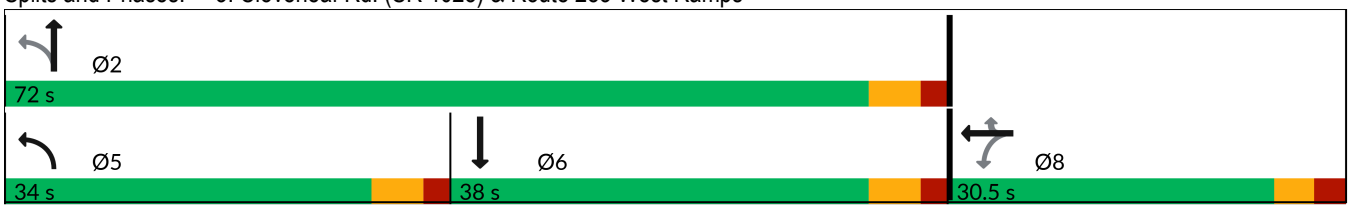
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	378	0	164	626	212	0	0	256	96
Future Volume (vph)	0	0	0	378	0	164	626	212	0	0	256	96
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	7%	0%	17%	4%	17%	0%	0%	14%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	406	176	673	228	0	0	378	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				30.5	30.5	30.5	34.0	72.0			38.0	
Total Split (%)				29.8%	29.8%	29.8%	33.2%	70.2%			37.1%	
Maximum Green (s)				25.0	25.0	25.0	28.0	66.0			32.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.97	0.38	1.12	0.24			0.88	
Control Delay (s/veh)					76.0	7.5	97.8	8.3			53.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					76.0	7.5	97.8	8.3			53.3	
Queue Length 50th (ft)					258	0	~405	55			212	
Queue Length 95th (ft)					#471	53	#637	89			#358	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					417	459	599	1015			512	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.97	0.38	1.12	0.22			0.74	

Intersection Summary	
Area Type:	Other
Cycle Length: 102.5	
Actuated Cycle Length: 97.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	378	0	164	626	212	0	0	256	96
Future Volume (veh/h)	0	0	0	378	0	164	626	212	0	0	256	96
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1775	1875	1633	1722	1539	0	0	1675	1619
Adj Flow Rate, veh/h				406	0	0	673	228	0	0	275	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				7	0	17	4	17	0	0	14	18
Cap, veh/h				468	0		716	967	0	0	408	
Arrive On Green				0.25	0.00	0.00	0.33	0.63	0.00	0.00	0.24	0.00
Sat Flow, veh/h				1785	0	1384	1640	1539	0	0	1675	0
Grp Volume(v), veh/h				406	0	0	673	228	0	0	275	0
Grp Sat Flow(s),veh/h/ln				1785	0	1384	1640	1539	0	0	1675	0
Q Serve(g_s), s				18.9	0.0	0.0	24.5	5.6	0.0	0.0	12.9	0.0
Cycle Q Clear(g_c), s				18.9	0.0	0.0	24.5	5.6	0.0	0.0	12.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				468	0		716	967	0	0	408	
V/C Ratio(X)				0.87	0.00		0.94	0.24	0.00	0.00	0.67	
Avail Cap(c_a), veh/h				536	0		729	1191	0	0	639	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				31.0	0.0	0.0	14.7	7.0	0.0	0.0	29.7	0.0
Incr Delay (d2), s/veh				12.9	0.0	0.0	20.0	0.5	0.0	0.0	6.9	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				14.8	0.0	0.0	16.8	2.9	0.0	0.0	9.6	0.0
Unsig. Movement Delay, s/veh						8.90						
LnGrp Delay(d), s/veh				43.9	0.0	8.9	34.7	7.5	0.0	0.0	36.5	0.0
LnGrp LOS				D		A	C	A			D	
Approach Vol, veh/h					551			901			275	
Approach Delay, s/veh					34.7			27.8			36.5	
Approach LOS					C			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	59.4	33.3	26.1	27.2
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	66.0	28.0	32.0	25.0
Max Q Clear Time (g_c+I1), s	8.1	27.0	15.4	20.9
Green Ext Time (p_c), s	6.6	0.3	4.7	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	31.4
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	0	324	0	0	0	0	769	644	163	471	0
Future Volume (vph)	69	0	324	0	0	0	0	769	644	163	471	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	26%	0%	7%	0%	0%	0%	0%	5%	3%	16%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	0	364	0	0	0	0	1588	0	183	529	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	0	324	0	0	0	0	769	644	163	471	0
Future Vol, veh/h	69	0	324	0	0	0	0	769	644	163	471	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	26	0	7	0	0	0	0	5	3	16	6	0
Mvmt Flow	78	0	364	0	0	0	0	864	724	183	529	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1760	-	529	-	0	0	864	0	0
Stage 1	896	-	-	-	-	-	-	-	-
Stage 2	864	-	-	-	-	-	-	-	-
Critical Hdwy	6.46	-	6.17	-	-	-	4.5	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	3.2	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	95	0	569	0	-	-	559	-	0
Stage 1	420	0	-	0	-	-	-	-	0
Stage 2	435	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 64	0	569	-	-	-	559	-	-
Mov Cap-2 Maneuver	~ 64	0	-	-	-	-	-	-	-
Stage 1	420	0	-	-	-	-	-	-	-
Stage 2	292	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	69.53	0	3.74
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	64	569	559	-
HCM Lane V/C Ratio	-	-	1.218	0.639	0.328	-
HCM Ctrl Dly (s/v)	-	-	293.4	21.9	14.5	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	6.3	4.5	1.4	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	10	9	1408	776	19
Future Volume (vph)	4	10	9	1408	776	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	0%	5%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	0	1524	854	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	10	9	1408	776	19
Future Vol, veh/h	4	10	9	1408	776	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	11	0	5	9	6
Mvmt Flow	4	11	10	1514	834	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2378	845	855	0	-	0
Stage 1	845	-	-	-	-	-
Stage 2	1533	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	40	364	604	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	36	364	604	-	-	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	213	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	46.58	0.07	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	11	-	101	-	-
HCM Lane V/C Ratio	0.016	-	0.148	-	-
HCM Ctrl Dly (s/v)	11.1	0	46.6	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

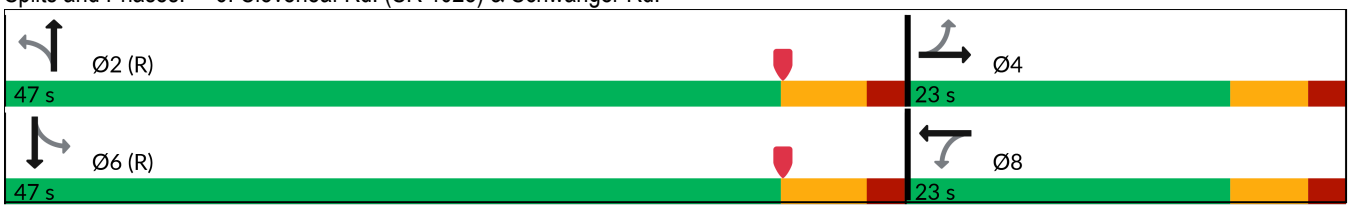
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	345	100	0	13	98	0	28	1097	0	19	828	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	23.0	23.0		23.0	23.0		47.0	47.0		47.0	47.0	
Total Split (%)	32.9%	32.9%		32.9%	32.9%		67.1%	67.1%		67.1%	67.1%	
Maximum Green (s)	17.0	17.0		17.0	17.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.13	0.21		0.04	0.21		0.14	1.13		0.20	0.88	
Control Delay (s/veh)	121.9	10.6		20.2	8.5		8.5	90.2		12.5	24.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	121.9	10.6		20.2	8.5		8.5	90.2		12.5	24.8	
Queue Length 50th (ft)	~177	11		4	6		5	~564		3	260	
Queue Length 95th (ft)	#326	45		17	39		17	#793		16	#526	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	304	471		294	462		196	970		97	945	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.13	0.21		0.04	0.21		0.14	1.13		0.20	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	345	34	35	13	17	66	28	1076	21	19	659	151
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	412	240	247	397	84	326	270	1050	20	107	837	192
Arrive On Green	0.26	0.26	0.24	0.26	0.26	0.24	0.59	0.59	0.58	0.59	0.59	0.58
Sat Flow, veh/h	1387	933	960	1246	326	1266	688	1771	35	536	1411	323
Grp Volume(v), veh/h	345	0	69	13	0	83	28	0	1097	19	0	810
Grp Sat Flow(s),veh/h/ln	1387	0	1893	1246	0	1592	688	0	1806	536	0	1734
Q Serve(g_s), s	15.6	0.0	2.0	0.6	0.0	2.9	2.2	0.0	41.5	0.5	0.0	25.0
Cycle Q Clear(g_c), s	18.0	0.0	2.0	2.0	0.0	2.9	26.8	0.0	41.5	41.5	0.0	25.0
Prop In Lane	1.00		0.51	1.00		0.80	1.00		0.02	1.00		0.19
Lane Grp Cap(c), veh/h	412	0	487	397	0	409	270	0	1071	107	0	1028
V/C Ratio(X)	0.84	0.00	0.14	0.03	0.00	0.20	0.10	0.00	1.02	0.18	0.00	0.79
Avail Cap(c_a), veh/h	412	0	487	397	0	409	270	0	1071	107	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	20.2	20.6	0.0	20.7	20.9	0.0	14.3	34.9	0.0	11.0
Incr Delay (d2), s/veh	14.1	0.0	0.1	0.0	0.0	0.2	0.8	0.0	33.9	3.6	0.0	6.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.5	0.0	1.5	0.3	0.0	1.9	0.7	0.0	30.4	0.7	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.1	0.0	20.4	20.7	0.0	20.9	21.7	0.0	48.2	38.6	0.0	17.1
LnGrp LOS	D		C	C		C	C		F	D		B
Approach Vol, veh/h		414			96			1125			829	
Approach Delay, s/veh		38.5			20.9			47.5			17.6	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	23.0	47.0	23.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	17.0	40.5	17.0
Max Q Clear Time (g_c+I1), s	43.5	20.5	27.0	4.9
Green Ext Time (p_c), s	0.0	0.0	11.3	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	34.9
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	246	1	21	179	4	0	4	37	42	4	25
Future Volume (vph)	13	246	1	21	179	4	0	4	37	42	4	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	281	0	24	208	0	0	47	0	0	81	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	246	1	21	179	4	0	4	37	42	4	25
Future Vol, veh/h	13	246	1	21	179	4	0	4	37	42	4	25
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	17	2	0	5	1	0	0	0	3	5	0	4
Mvmt Flow	15	280	1	24	203	5	0	5	42	48	5	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	281	0	0	563	566	280	566	565	207
Stage 1	-	-	-	-	-	-	310	310	-	254	254	-
Stage 2	-	-	-	-	-	-	253	257	-	311	310	-
Critical Hdwy	4.5	-	-	4.4	-	-	7.3	6.7	6.33	6.6	5.9	5.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Follow-up Hdwy	3.2	-	-	3	-	-	3	4	3.1	3	4	3.1
Pot Cap-1 Maneuver	949	-	-	955	-	-	480	423	799	533	480	901
Stage 1	-	-	-	-	-	-	792	651	-	900	731	-
Stage 2	-	-	-	-	-	-	854	689	-	843	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	948	-	-	955	-	-	442	405	799	479	460	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	405	-	479	460	-
Stage 1	-	-	-	-	-	-	780	641	-	876	712	-
Stage 2	-	-	-	-	-	-	802	671	-	781	687	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.44	0.91	10.27	12.32
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	730	948	-	-	955	-	-	572
HCM Lane V/C Ratio	0.064	0.016	-	-	0.025	-	-	0.141
HCM Ctrl Dly (s/v)	10.3	8.9	-	-	8.9	-	-	12.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	36	9	18	53	17	22
Future Volume (vph)	36	9	18	53	17	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	2119			1252	852	
Travel Time (s)	36.1			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	19%	7%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	0	96	53	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	36	9	18	53	17	22
Future Vol, veh/h	36	9	18	53	17	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	16	0	19	7	0	5
Mvmt Flow	49	12	24	72	23	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	61	0	175	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.5	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.2	-	3	3.1
Pot Cap-1 Maneuver	-	-	1071	-	945	1081
Stage 1	-	-	-	-	1131	-
Stage 2	-	-	-	-	1053	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1071	-	922	1081
Mov Cap-2 Maneuver	-	-	-	-	922	-
Stage 1	-	-	-	-	1131	-
Stage 2	-	-	-	-	1028	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.14	8.78
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1006	-	-	456	-
HCM Lane V/C Ratio	0.052	-	-	0.023	-
HCM Ctrl Dly (s/v)	8.8	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	40	53	21	7	8
Future Volume (vph)	26	40	53	21	7	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		2%	-2%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1109	2119		324	
Travel Time (s)		18.9	36.1		8.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	25%	15%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	73	82	0	17	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	40	53	21	7	8
Future Vol, veh/h	26	40	53	21	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	2	-2	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	25	15	2	2	2
Mvmt Flow	29	44	59	23	8	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	82	0	-	0	173	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	102	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1125	-	-	-	947	1060
Stage 1	-	-	-	-	1111	-
Stage 2	-	-	-	-	1073	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1125	-	-	-	922	1060
Mov Cap-2 Maneuver	-	-	-	-	922	-
Stage 1	-	-	-	-	1082	-
Stage 2	-	-	-	-	1073	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.26	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	709	-	-	-	991
HCM Lane V/C Ratio	0.026	-	-	-	0.017
HCM Ctrl Dly (s/v)	8.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	48	0	5	56	0	0	72	18	0	34	7
Future Volume (vph)	24	48	0	5	56	0	0	72	18	0	34	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			-1%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1309			1109			278			356	
Travel Time (s)		22.3			18.9			7.6			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	25%	0%	2%	15%	0%	0%	33%	2%	0%	56%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	68	0	0	100	0	0	46	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	48	0	5	56	0	0	72	18	0	34	7
Future Vol, veh/h	24	48	0	5	56	0	0	72	18	0	34	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	25	0	2	15	0	0	33	2	0	56	2
Mvmt Flow	27	53	0	6	62	0	0	80	20	0	38	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	62	0	0	53	0	0	199	180	53	220	180	62
Stage 1	-	-	-	-	-	-	107	107	-	73	73	-
Stage 2	-	-	-	-	-	-	92	73	-	147	107	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.1	6.83	6.22	7.1	7.06	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.83	-	6.1	6.06	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.83	-	6.1	6.06	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.297	3.1	3	4.504	3.1
Pot Cap-1 Maneuver	1143	-	-	1151	-	-	880	662	1084	851	627	1071
Stage 1	-	-	-	-	-	-	1047	751	-	1092	739	-
Stage 2	-	-	-	-	-	-	1066	777	-	994	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1143	-	-	1151	-	-	797	643	1084	713	609	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-	797	643	-	713	609	-
Stage 1	-	-	-	-	-	-	1022	733	-	1087	736	-
Stage 2	-	-	-	-	-	-	999	773	-	848	696	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.74	0.67	11	10.88
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	600	-	-	148	-	-	657
HCM Lane V/C Ratio	0.143	0.023	-	-	0.005	-	-	0.069
HCM Ctrl Dly (s/v)	11	8.2	0	-	8.1	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	164	212	0	0	0
Future Volume (vph)	0	164	212	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	184		118			92
Travel Time (s)	5.0		2.0			1.6
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	17%	17%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	228	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑			
Traffic Vol, veh/h	0	164	212	0	0	0
Future Vol, veh/h	0	164	212	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	17	17	0	0	0
Mvmt Flow	0	176	228	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	228	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1094	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1094	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.92	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1094
HCM Lane V/C Ratio	-	0.161
HCM Ctrl Dly (s/v)	-	8.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	44	29	309	62	24	189
Future Volume (vph)	44	29	309	62	24	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	1263		1057			908
Travel Time (s)	21.5		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	13%	5%	2%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	395	0	0	227
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	44	29	309	62	24	189
Future Vol, veh/h	44	29	309	62	24	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	20	13	5	2	0	3
Mvmt Flow	47	31	329	66	26	201

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	614	362	0	0	395	0
Stage 1	362	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.4	6.23	-	-	4.3	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	-	-	3	-
Pot Cap-1 Maneuver	490	703	-	-	879	-
Stage 1	765	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	474	703	-	-	879	-
Mov Cap-2 Maneuver	474	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.71	0	1.04
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	203	-
HCM Lane V/C Ratio	-	-	0.143	0.029	-
HCM Ctrl Dly (s/v)	-	-	12.7	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	253	64	281	59	4	228
Future Volume (vph)	253	64	281	59	4	228
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	2%	11%	46%	25%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	422	0	454	0	0	309
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	11.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	253	64	281	59	4	228
Future Vol, veh/h	253	64	281	59	4	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	10	2	11	46	25	7
Mvmt Flow	337	85	375	79	5	304

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	729	414	0	0	453	0
Stage 1	414	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	5.5	5.72	-	-	4.6	-
Critical Hdwy Stg 1	4.5	-	-	-	-	-
Critical Hdwy Stg 2	4.5	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	514	715	-	-	766	-
Stage 1	823	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	509	715	-	-	766	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	887	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	31.49	0	0.17
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	541	31	-
HCM Lane V/C Ratio	-	-	0.782	0.007	-
HCM Ctrl Dly (s/v)	-	-	31.5	9.7	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	7.2	0	-

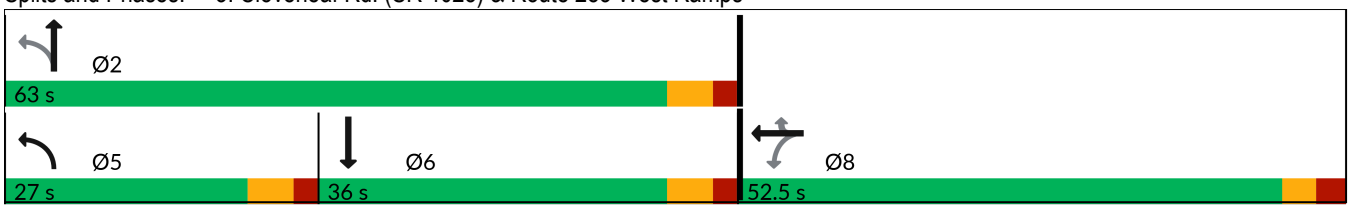
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	658	0	183	338	234	0	0	307	90
Future Volume (vph)	0	0	0	658	0	183	338	234	0	0	307	90
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	11%	6%	9%	0%	0%	6%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	685	191	352	244	0	0	414	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				52.5	52.5	52.5	27.0	63.0			36.0	
Total Split (%)				45.5%	45.5%	45.5%	23.4%	54.5%			31.2%	
Maximum Green (s)				47.0	47.0	47.0	21.0	57.0			30.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					1.01	0.29	0.95	0.31			0.97	
Control Delay (s/veh)					72.3	4.3	63.8	18.3			76.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					72.3	4.3	63.8	18.3			76.8	
Queue Length 50th (ft)					~522	0	187	101			296	
Queue Length 95th (ft)					#769	44	#342	153			#498	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					676	653	370	796			435	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					1.01	0.29	0.95	0.31			0.95	

Intersection Summary

Area Type: Other
Cycle Length: 115.5
Actuated Cycle Length: 115.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	658	0	183	338	234	0	0	307	90
Future Volume (veh/h)	0	0	0	658	0	183	338	234	0	0	307	90
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1832	1875	1718	1693	1651	0	0	1789	1675
Adj Flow Rate, veh/h				685	0	0	352	244	0	0	320	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				3	0	11	6	9	0	0	6	14
Cap, veh/h				751	0		455	799	0	0	433	
Arrive On Green				0.41	0.00	0.00	0.19	0.48	0.00	0.00	0.24	0.00
Sat Flow, veh/h				1785	0	1456	1613	1651	0	0	1789	0
Grp Volume(v), veh/h				685	0	0	352	244	0	0	320	0
Grp Sat Flow(s),veh/h/ln				1785	0	1456	1613	1651	0	0	1789	0
Q Serve(g_s), s				35.8	0.0	0.0	15.0	8.9	0.0	0.0	16.4	0.0
Cycle Q Clear(g_c), s				35.8	0.0	0.0	15.0	8.9	0.0	0.0	16.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				751	0		455	799	0	0	433	
V/C Ratio(X)				0.91	0.00		0.77	0.31	0.00	0.00	0.74	
Avail Cap(c_a), veh/h				865	0		505	967	0	0	560	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				27.5	0.0	0.0	21.3	15.5	0.0	0.0	34.6	0.0
Incr Delay (d2), s/veh				12.7	0.0	0.0	6.7	0.8	0.0	0.0	8.9	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				24.5	0.0	0.0	10.1	5.9	0.0	0.0	12.5	0.0
Unsig. Movement Delay, s/veh						9.10						
LnGrp Delay(d), s/veh				40.2	0.0	9.1	28.0	16.3	0.0	0.0	43.5	0.0
LnGrp LOS				D		A	C	B			D	
Approach Vol, veh/h					817			596			320	
Approach Delay, s/veh					35.2			23.2			43.5	
Approach LOS					D			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	52.9	23.9	29.0	46.2
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	57.0	21.0	30.0	47.0
Max Q Clear Time (g_c+I1), s	11.4	17.5	18.9	37.8
Green Ext Time (p_c), s	6.7	0.4	4.1	2.8

Intersection Summary	
HCM 7th Control Delay, s/veh	32.6
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	0	580	0	0	0	0	477	480	151	813	0
Future Volume (vph)	95	0	580	0	0	0	0	477	480	151	813	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	1%	0%	0%	0%	0%	6%	4%	9%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	0	592	0	0	0	0	977	0	154	830	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	64.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	95	0	580	0	0	0	0	477	480	151	813	0
Future Vol, veh/h	95	0	580	0	0	0	0	477	480	151	813	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	16	0	1	0	0	0	0	6	4	9	3	0
Mvmt Flow	97	0	592	0	0	0	0	487	490	154	830	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1624	-	830	-	0	0	487	0	0
Stage 1	1138	-	-	-	-	-	-	-	-
Stage 2	487	-	-	-	-	-	-	-	-
Critical Hdwy	6.36	-	6.11	-	-	-	4.4	-	-
Critical Hdwy Stg 1	5.36	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.36	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	3.1	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	122	0	~ 398	0	-	-	784	-	0
Stage 1	335	0	-	0	-	-	-	-	0
Stage 2	689	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	98	0	~ 398	-	-	-	784	-	-
Mov Cap-2 Maneuver	98	0	-	-	-	-	-	-	-
Stage 1	335	0	-	-	-	-	-	-	-
Stage 2	553	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	245.74	0	1.68
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	98	398	784	-
HCM Lane V/C Ratio	-	-	0.986	1.489	0.196	-
HCM Ctrl Dly (s/v)	-	-	166.1	258.8	10.7	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	5.9	31.4	0.7	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	13	4	941	1392	1
Future Volume (vph)	17	13	4	941	1392	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	0%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	995	1466	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	13	4	941	1392	1
Future Vol, veh/h	17	13	4	941	1392	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	13	0	0	4	3	0
Mvmt Flow	18	14	4	991	1465	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2465	1466	1466	0	-	0
Stage 1	1466	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Critical Hdwy	6.53	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	3	-	-	-
Pot Cap-1 Maneuver	32	164	361	-	-	-
Stage 1	215	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	31	164	361	-	-	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	210	-	-	-	-	-
Stage 2	373	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	170.42	0.06	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	8	-	48	-	-
HCM Lane V/C Ratio	0.012	-	0.657	-	-
HCM Ctrl Dly (s/v)	15.1	0	170.4	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0	-	2.6	-	-

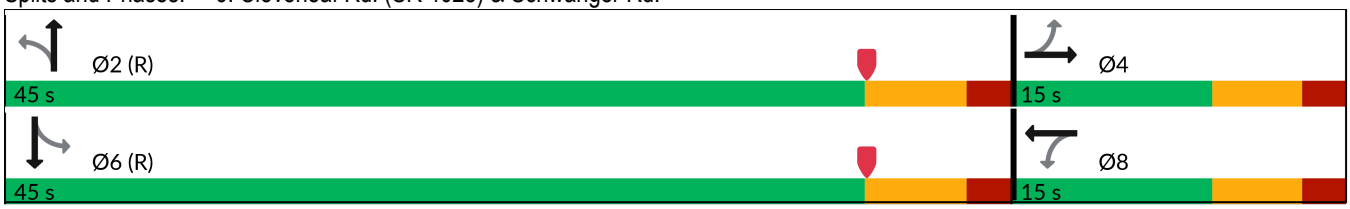
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	100	0	29	78	0	52	762	0	68	1370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	15.0	15.0		15.0	15.0		45.0	45.0		45.0	45.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%		75.0%	75.0%	
Maximum Green (s)	9.0	9.0		9.0	9.0		38.5	38.5		38.5	38.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.03	0.30		0.15	0.25		0.46	0.69		0.22	1.24	
Control Delay (s/veh)	104.2	14.7		23.7	17.6		22.6	10.5		6.2	129.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	104.2	14.7		23.7	17.6		22.6	10.5		6.2	129.9	
Queue Length 50th (ft)	~79	14		9	15		8	140		8	~634	
Queue Length 95th (ft)	#195	50		29	48		#57	251		23	#866	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	200	337		190	312		113	1105		313	1109	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.04	0.30		0.15	0.25		0.46	0.69		0.22	1.24	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	207	45	42	29	49	14	52	744	17	68	1037	317
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	323	164	153	285	227	65	123	1180	27	425	915	280
Arrive On Green	0.17	0.17	0.15	0.17	0.17	0.15	0.66	0.66	0.64	0.66	0.66	0.64
Sat Flow, veh/h	1412	983	918	1226	1361	389	411	1792	41	718	1391	425
Grp Volume(v), veh/h	207	0	87	29	0	63	52	0	761	68	0	1354
Grp Sat Flow(s),veh/h/ln	1412	0	1901	1226	0	1750	411	0	1833	718	0	1816
Q Serve(g_s), s	8.6	0.0	2.4	1.3	0.0	1.9	0.5	0.0	14.6	3.6	0.0	39.5
Cycle Q Clear(g_c), s	10.0	0.0	2.4	3.2	0.0	1.9	39.5	0.0	14.6	17.7	0.0	39.5
Prop In Lane	1.00		0.48	1.00		0.22	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	323	0	317	285	0	292	123	0	1207	425	0	1195
V/C Ratio(X)	0.64	0.00	0.27	0.10	0.00	0.22	0.42	0.00	0.63	0.16	0.00	1.13
Avail Cap(c_a), veh/h	323	0	317	285	0	292	123	0	1207	425	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	22.1	23.0	0.0	21.7	30.0	0.0	6.0	11.0	0.0	10.4
Incr Delay (d2), s/veh	4.2	0.0	0.5	0.2	0.0	0.4	10.2	0.0	2.5	0.8	0.0	70.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	0.0	1.9	0.6	0.0	1.3	1.9	0.0	7.0	1.0	0.0	45.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.0	0.0	22.5	23.2	0.0	22.1	40.2	0.0	8.5	11.8	0.0	81.0
LnGrp LOS	C		C	C		C	D		A	B		F
Approach Vol, veh/h		294			92			813			1422	
Approach Delay, s/veh		27.8			22.4			10.5			77.7	
Approach LOS		C			C			B			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	15.0	45.0	15.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	38.5	9.0	38.5	9.0
Max Q Clear Time (g_c+I1), s	16.6	12.5	41.5	5.7
Green Ext Time (p_c), s	16.3	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	49.3
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	286	4	87	239	45	1	9	36	19	9	18
Future Volume (vph)	25	286	4	87	239	45	1	9	36	19	9	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	322	0	97	316	0	0	51	0	0	51	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	286	4	87	239	45	1	9	36	19	9	18
Future Vol, veh/h	25	286	4	87	239	45	1	9	36	19	9	18
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	1	1	2	0	13	3	6	13	6
Mvmt Flow	28	318	4	97	266	50	1	10	40	21	10	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	317	0	0	322	0	0	839	885	321	864	863	292
Stage 1	-	-	-	-	-	-	376	376	-	485	485	-
Stage 2	-	-	-	-	-	-	464	510	-	379	378	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.3	6.83	6.33	6.56	6.03	5.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.117	3.1	3.1	4.117	3.2
Pot Cap-1 Maneuver	935	-	-	931	-	-	304	259	756	341	324	788
Stage 1	-	-	-	-	-	-	724	585	-	672	579	-
Stage 2	-	-	-	-	-	-	642	505	-	758	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	934	-	-	931	-	-	250	225	755	269	282	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	225	-	269	282	-
Stage 1	-	-	-	-	-	-	703	568	-	601	518	-
Stage 2	-	-	-	-	-	-	550	452	-	684	616	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.71	2.18	12.98	16.39
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	502	934	-	-	931	-	-	367
HCM Lane V/C Ratio	0.102	0.03	-	-	0.104	-	-	0.139
HCM Ctrl Dly (s/v)	13	9	-	-	9.3	-	-	16.4
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.3	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	83	26	29	35	9	25
Future Volume (vph)	83	26	29	35	9	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	2125			1252	852	
Travel Time (s)	36.2			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	3%	25%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	0	73	38	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	83	26	29	35	9	25
Future Vol, veh/h	83	26	29	35	9	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	0	15	3	25	4
Mvmt Flow	94	30	33	40	10	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	215	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.5	-	6.65	6.24
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	3.1	-	3.2	3.1
Pot Cap-1 Maneuver	-	-	1049	-	831	1007
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1049	-	804	1007
Mov Cap-2 Maneuver	-	-	-	-	804	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	966	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.87	8.98
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	944	-	-	816	-
HCM Lane V/C Ratio	0.041	-	-	0.031	-
HCM Ctrl Dly (s/v)	9	-	-	8.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	83	37	7	26	32
Future Volume (vph)	9	83	37	7	26	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		2%	-2%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1141	2125		293	
Travel Time (s)		19.4	36.2		8.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	8%	15%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	102	49	0	65	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	83	37	7	26	32
Future Vol, veh/h	9	83	37	7	26	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	2	-2	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	8	15	2	2	2
Mvmt Flow	10	92	41	8	29	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	157	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1155	-	-	-	967	1095
Stage 1	-	-	-	-	1143	-
Stage 2	-	-	-	-	1062	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1155	-	-	-	958	1095
Mov Cap-2 Maneuver	-	-	-	-	958	-
Stage 1	-	-	-	-	1132	-
Stage 2	-	-	-	-	1062	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.8	0	8.73
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	176	-	-	-	1029
HCM Lane V/C Ratio	0.009	-	-	-	0.063
HCM Ctrl Dly (s/v)	8.1	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

10: Proposed Archers Lane/Western Dw. & Mt. Pleasant Rd. (SR 4010)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	86	0	22	47	0	0	39	6	0	79	29
Future Volume (vph)	8	86	0	22	47	0	0	39	6	0	79	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			-1%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1263			1141			424			360	
Travel Time (s)		21.5			19.4			11.6			9.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	8%	0%	2%	15%	0%	0%	59%	2%	0%	27%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	105	0	0	76	0	0	50	0	0	120	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	86	0	22	47	0	0	39	6	0	79	29
Future Vol, veh/h	8	86	0	22	47	0	0	39	6	0	79	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	8	0	2	15	0	0	59	2	0	27	2
Mvmt Flow	9	96	0	24	52	0	0	43	7	0	88	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	96	0	0	258	214	96	236	214	52
Stage 1	-	-	-	-	-	-	113	113	-	101	101	-
Stage 2	-	-	-	-	-	-	145	101	-	135	113	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.1	7.09	6.22	7.1	6.77	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.09	-	6.1	5.77	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.09	-	6.1	5.77	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.531	3.1	3	4.243	3.1
Pot Cap-1 Maneuver	1152	-	-	1114	-	-	801	594	1026	830	642	1085
Stage 1	-	-	-	-	-	-	1038	704	-	1054	765	-
Stage 2	-	-	-	-	-	-	996	713	-	1009	756	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1152	-	-	1114	-	-	650	576	1026	741	622	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	650	576	-	741	622	-
Stage 1	-	-	-	-	-	-	1029	698	-	1030	748	-
Stage 2	-	-	-	-	-	-	834	697	-	933	750	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.69	2.65	11.41	11.18
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	612	153	-	-	574	-	-	702
HCM Lane V/C Ratio	0.082	0.008	-	-	0.022	-	-	0.171
HCM Ctrl Dly (s/v)	11.4	8.1	0	-	8.3	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	183	234	0	0	0
Future Volume (vph)	0	183	234	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	278		122			129
Travel Time (s)	7.6		2.1			2.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	9%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	191	244	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑			
Traffic Vol, veh/h	0	183	234	0	0	0
Future Vol, veh/h	0	183	234	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	11	9	0	0	0
Mvmt Flow	0	191	244	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	244	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1076	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1076	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	9.06	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1076
HCM Lane V/C Ratio	-	0.177
HCM Ctrl Dly (s/v)	-	9.1
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.6

2030 Projected (Build) Conditions W IMP

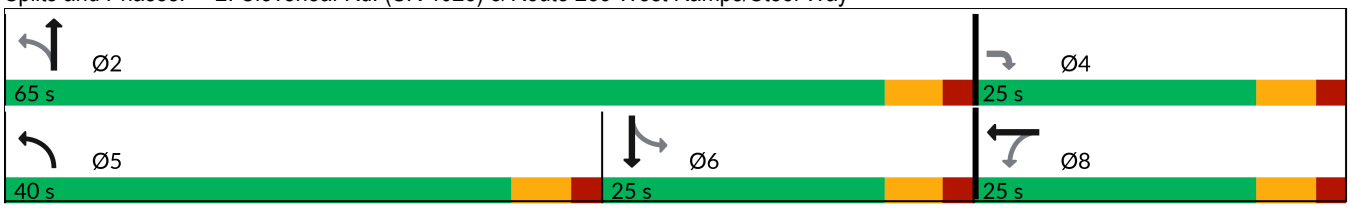
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	378	45	16	1	626	183	173	18	228	80
Future Volume (vph)	0	0	378	45	16	1	626	183	173	18	228	80
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	14	14	12	11	11	11	11	12
Grade (%)		0%			-5%			2%			-2%	
Storage Length (ft)	0		0	0		0	700		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	1455	0	1322	0	1628	1358	0	1670	1521	0
Flt Permitted					0.965		0.258			0.535		
Satd. Flow (perm)	0	0	1455	0	1322	0	442	1358	0	940	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			793		1			113			18	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		523			1042			715			1084	
Travel Time (s)		14.3			23.7			12.2			18.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	7%	44%	44%	0%	4%	21%	14%	0%	11%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	406	0	66	0	673	383	0	19	331	0
Turn Type			Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases			4	8			2			6		
Detector Phase			4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)			5.0	5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)			11.0	11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)			25.0	25.0	25.0		40.0	65.0		25.0	25.0	
Total Split (%)			27.8%	27.8%	27.8%		44.4%	72.2%		27.8%	27.8%	
Maximum Green (s)			19.0	19.0	19.0		34.0	59.0		19.0	19.0	
Yellow Time (s)			4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)			2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0		-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)			6.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode			None	None	None		None	Min		Min	Min	
Walk Time (s)												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			9.2		10.2		58.4	58.4		19.6	19.6	
Actuated g/C Ratio			0.12		0.13		0.74	0.74		0.25	0.25	
v/c Ratio			0.47		0.38		0.80	0.37		0.08	0.85	
Control Delay (s/veh)			1.8		38.1		19.9	3.8		25.6	49.3	
Queue Delay			0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)			1.8		38.1		19.9	3.8		25.6	49.3	
LOS			A		D		B	A		C	D	
Approach Delay (s/veh)		1.8			38.1			14.1			48.0	
Approach LOS		A			D			B			D	
Queue Length 50th (ft)			0		30		182	34		7	150	
Queue Length 95th (ft)			0		68		#433	82		26	#315	
Internal Link Dist (ft)		443			962			635			1004	
Turn Bay Length (ft)							700			100		
Base Capacity (vph)			953		338		858	1067		240	402	
Starvation Cap Reductn			0		0		0	0		0	0	
Spillback Cap Reductn			0		0		0	0		0	0	
Storage Cap Reductn			0		0		0	0		0	0	
Reduced v/c Ratio			0.43		0.20		0.78	0.36		0.08	0.82	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay (s/veh): 18.6 Intersection LOS: B
Intersection Capacity Utilization 71.1% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps/Steel Way



HCM 7th Edition methodology does not support Non-NEMA phasing.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	164	838	0	0	538
Future Volume (vph)	0	164	838	0	0	538
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	10	11	11	11	11
Grade (%)	-2%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	831		554			715
Travel Time (s)	22.7		9.4			12.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	17%	7%	0%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	901	0	0	578
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	164	838	0	0	538
Future Vol, veh/h	0	164	838	0	0	538
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	17	7	0	0	11
Mvmt Flow	0	176	901	0	0	578

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	901	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	2.6	-	-	-	-
Pot Cap-1 Maneuver	0	539	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	539	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	539	-
HCM Lane V/C Ratio	-	0.327	-
HCM Ctrl Dly (s/v)	-	14.9	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	1.4	-

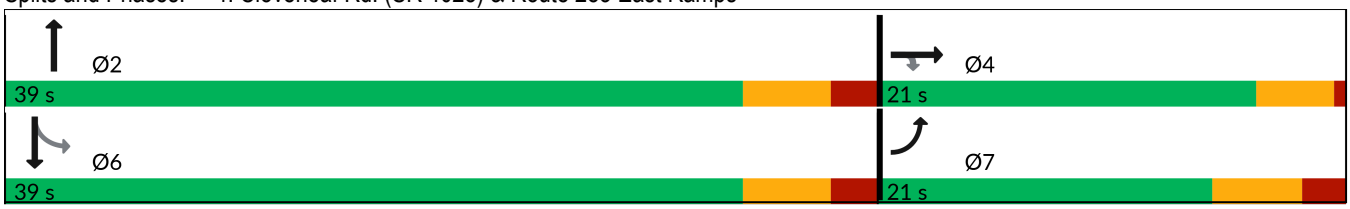
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	0	324	0	0	0	0	769	644	163	471	0
Future Volume (vph)	69	0	324	0	0	0	0	769	644	163	471	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	200		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	26%	0%	7%	0%	0%	0%	0%	5%	3%	16%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	364	0	0	0	0	1588	0	183	529	0
Turn Type	Prot	NA	Perm					NA		Perm	NA	
Protected Phases	7	4						2			6	
Permitted Phases			4							6		
Detector Phase	7	4	4					2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0					10.0		10.0	10.0	
Minimum Split (s)	11.0	20.0	20.0					16.0		16.0	16.0	
Total Split (s)	21.0	21.0	21.0					39.0		39.0	39.0	
Total Split (%)	35.0%	35.0%	35.0%					65.0%		65.0%	65.0%	
Maximum Green (s)	15.0	17.0	17.0					33.0		33.0	33.0	
Yellow Time (s)	4.0	3.5	3.5					4.0		4.0	4.0	
All-Red Time (s)	2.0	0.5	0.5					2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	-1.0					-1.0		-1.0	-1.0	
Total Lost Time (s)		4.0	3.0					5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Recall Mode	None	None	None					Min		Min	Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.22	0.56					1.63		1.76	0.52	
Control Delay (s/veh)		18.2	7.1					306.5		398.4	9.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay (s/veh)		18.2	7.1					306.5		398.4	9.5	
Queue Length 50th (ft)		21	10					~866		~82	84	
Queue Length 95th (ft)		50	62					#1089		#104	105	
Internal Link Dist (ft)		826			679			233			474	
Turn Bay Length (ft)			350							200		
Base Capacity (vph)		361	701					974		104	1008	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.22	0.52					1.63		1.76	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Cloverleaf Rd. (SR 4025) & Route 283 East Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	0	324	0	0	0	0	769	644	163	471	0
Future Volume (veh/h)	69	0	324	0	0	0	0	769	644	163	471	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.04	1.04	1.04				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1526	1911	1807				0	1766	1795	1647	1789	0
Adj Flow Rate, veh/h	78	0	0				0	864	0	183	529	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	26	0	7				0	5	3	16	6	0
Cap, veh/h	125	0					0	1225		381	1241	0
Arrive On Green	0.09	0.00	0.00				0.00	0.69	0.00	0.69	0.69	0.00
Sat Flow, veh/h	1820	0	1532				0	1766	0	564	1789	0
Grp Volume(v), veh/h	78	0	0				0	864	0	183	529	0
Grp Sat Flow(s),veh/h/ln	1820	0	1532				0	1766	0	564	1789	0
Q Serve(g_s), s	1.9	0.0	0.0				0.0	13.6	0.0	13.3	5.9	0.0
Cycle Q Clear(g_c), s	1.9	0.0	0.0				0.0	13.6	0.0	26.9	5.9	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	125	0					0	1225		381	1241	0
V/C Ratio(X)	0.63	0.00					0.00	0.71		0.48	0.43	0.00
Avail Cap(c_a), veh/h	591	0					0	1299		405	1316	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.5	0.0	0.0				0.0	4.2	0.0	12.3	3.1	0.0
Incr Delay (d2), s/veh	5.1	0.0	0.0				0.0	1.6	0.0	0.9	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0				0.0	2.8	0.0	2.3	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.5	0.0	0.0				0.0	5.9	0.0	13.3	3.3	0.0
LnGrp LOS	C							A		B	A	
Approach Vol, veh/h		78						864			712	
Approach Delay, s/veh		25.5						5.9			5.9	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	37.1	9.2	37.1
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	33.0	15.0	33.0
Max Q Clear Time (g_c+I1), s	16.1	4.4	29.4
Green Ext Time (p_c), s	5.7	0.2	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	6.8
HCM 7th LOS	A

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

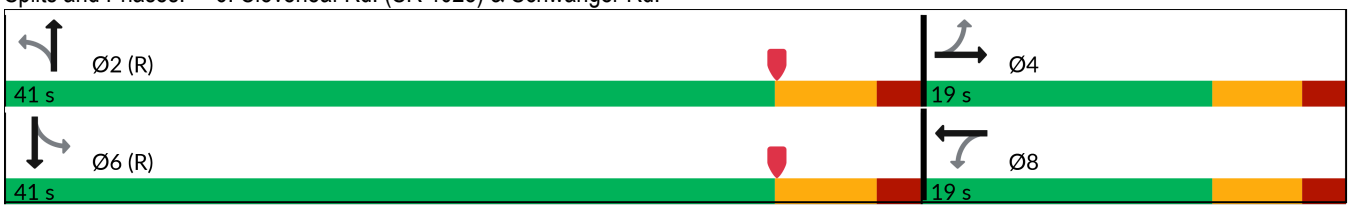
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	345	100	0	13	98	0	28	1097	0	19	828	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	19.0	19.0		19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%		31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	
Maximum Green (s)	13.0	13.0		13.0	13.0		34.5	34.5		34.5	34.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.25	0.23		0.05	0.23		0.14	1.13		0.17	0.88	
Control Delay (s/veh)	165.1	10.4		18.6	8.5		7.5	89.9		9.8	23.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	165.1	10.4		18.6	8.5		7.5	89.9		9.8	23.3	
Queue Length 50th (ft)	~161	10		4	5		4	~480		3	212	
Queue Length 95th (ft)	#301	42		15	36		15	#698		13	#467	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	276	433		267	427		202	968		114	945	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.25	0.23		0.05	0.23		0.14	1.13		0.17	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	345	34	35	13	17	66	28	1076	21	19	659	151
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	396	218	224	385	76	295	286	1048	20	124	835	191
Arrive On Green	0.23	0.23	0.22	0.23	0.23	0.22	0.59	0.59	0.57	0.59	0.59	0.57
Sat Flow, veh/h	1387	933	960	1246	326	1266	688	1771	35	536	1411	323
Grp Volume(v), veh/h	345	0	69	13	0	83	28	0	1097	19	0	810
Grp Sat Flow(s),veh/h/ln	1387	0	1893	1246	0	1592	688	0	1806	536	0	1734
Q Serve(g_s), s	11.9	0.0	1.8	0.5	0.0	2.6	1.9	0.0	35.5	0.5	0.0	21.5
Cycle Q Clear(g_c), s	14.0	0.0	1.8	1.8	0.0	2.6	23.0	0.0	35.5	35.5	0.0	21.5
Prop In Lane	1.00		0.51	1.00		0.80	1.00		0.02	1.00		0.19
Lane Grp Cap(c), veh/h	396	0	442	385	0	371	286	0	1069	124	0	1026
V/C Ratio(X)	0.87	0.00	0.16	0.03	0.00	0.22	0.10	0.00	1.03	0.15	0.00	0.79
Avail Cap(c_a), veh/h	396	0	442	385	0	371	286	0	1069	124	0	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	0.0	18.5	18.8	0.0	18.9	18.0	0.0	12.3	29.9	0.0	9.5
Incr Delay (d2), s/veh	18.7	0.0	0.2	0.0	0.0	0.3	0.7	0.0	34.5	2.6	0.0	6.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	0.0	1.3	0.2	0.0	1.6	0.6	0.0	27.1	0.6	0.0	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.9	0.0	18.7	18.8	0.0	19.2	18.7	0.0	46.8	32.5	0.0	15.6
LnGrp LOS	D		B	B		B	B		F	C		B
Approach Vol, veh/h		414			96			1125			829	
Approach Delay, s/veh		39.7			19.2			46.1			16.0	
Approach LOS		D			B			D			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.0	19.0	41.0	19.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	34.5	13.0	34.5	13.0
Max Q Clear Time (g_c+I1), s	37.5	16.5	23.5	4.6
Green Ext Time (p_c), s	0.0	0.0	9.3	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	33.8
HCM 7th LOS	C

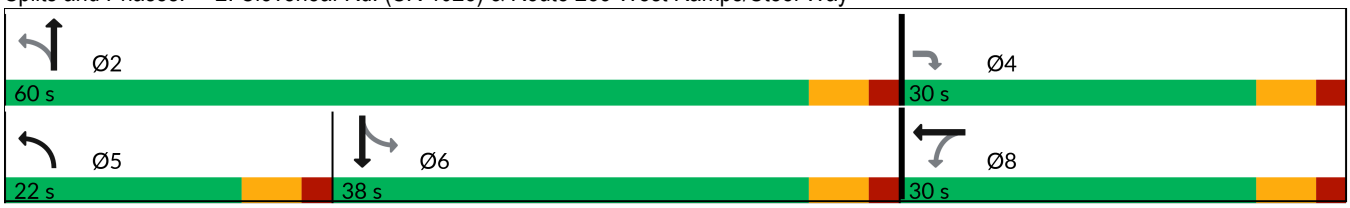
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	678	212	48	64	338	281	59	4	192	42
Future Volume (vph)	0	0	678	212	48	64	338	281	59	4	192	42
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	12	14	12	11	11	11	11	12
Grade (%)		0%			-5%			2%			-2%	
Storage Length (ft)	0		0	0		0	700		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	1512	0	1609	0	1597	1433	0	1336	1598	0
Flt Permitted					0.968		0.303			0.501		
Satd. Flow (perm)	0	0	1512	0	1609	0	509	1433	0	704	1598	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			659		14			22			14	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		424			1042			715			1057	
Travel Time (s)		11.6			23.7			12.2			18.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	10%	10%	0%	6%	11%	46%	25%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	904	0	432	0	451	454	0	5	312	0
Turn Type			Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases			4	8			2			6		
Detector Phase			4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)			5.0	5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)			11.0	11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)			30.0	30.0	30.0		22.0	60.0		38.0	38.0	
Total Split (%)			33.3%	33.3%	33.3%		24.4%	66.7%		42.2%	42.2%	
Maximum Green (s)			24.0	24.0	24.0		16.0	54.0		32.0	32.0	
Yellow Time (s)			4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)			2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0		-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)			6.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode			None	None	None		None	Min		Min	Min	
Walk Time (s)												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			24.1		25.1		42.7	42.7		20.6	20.6	
Actuated g/C Ratio			0.31		0.32		0.55	0.55		0.26	0.26	
v/c Ratio			0.98		0.82		0.87	0.57		0.03	0.72	
Control Delay (s/veh)			35.1		39.7		31.6	14.0		20.3	34.7	
Queue Delay			0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)			35.1		39.7		31.6	14.0		20.3	34.7	
LOS			D		D		C	B		C	C	
Approach Delay (s/veh)		35.1			39.7			22.8			34.5	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)			133		184		127	126		2	131	
Queue Length 95th (ft)			#254		#285		150	151		8	166	
Internal Link Dist (ft)		344			962			635			977	
Turn Bay Length (ft)							700			100		
Base Capacity (vph)			923		528		517	1023		299	688	
Starvation Cap Reductn			0		0		0	0		0	0	
Spillback Cap Reductn			0		0		0	0		0	0	
Storage Cap Reductn			0		0		0	0		0	0	
Reduced v/c Ratio			0.98		0.82		0.87	0.44		0.02	0.45	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 77.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay (s/veh): 31.5	Intersection LOS: C
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps/Steel Way



HCM 7th Edition methodology does not support Non-NEMA phasing.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	183	572	0	0	875
Future Volume (vph)	0	183	572	0	0	875
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	10	11	11	11	11
Grade (%)	-2%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	831		554			715
Travel Time (s)	22.7		9.4			12.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	7%	0%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	191	596	0	0	911
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑			↑
Traffic Vol, veh/h	0	183	572	0	0	875
Future Vol, veh/h	0	183	572	0	0	875
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	-2
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	11	7	0	0	5
Mvmt Flow	0	191	596	0	0	911

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	596	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	2.6	-	-	-	-
Pot Cap-1 Maneuver	0	745	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	745	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.49	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	745	-
HCM Lane V/C Ratio	-	0.256	-
HCM Ctrl Dly (s/v)	-	11.5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	1	-

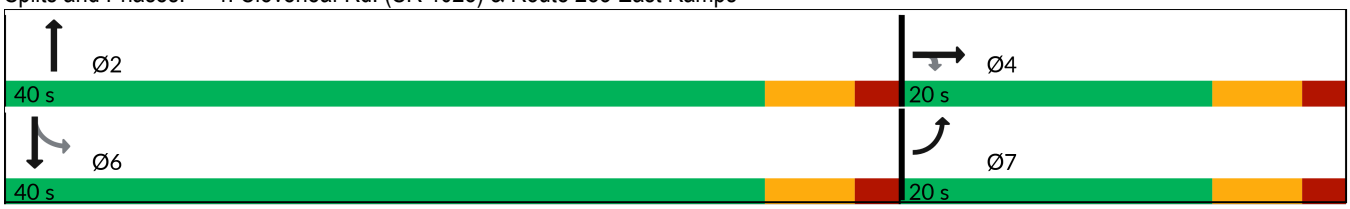
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	0	580	0	0	0	0	477	480	151	813	0
Future Volume (vph)	95	0	580	0	0	0	0	477	480	151	813	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	200		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	1%	0%	0%	0%	0%	6%	4%	9%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	97	592	0	0	0	0	977	0	154	830	0
Turn Type	Prot	NA	Perm					NA		Perm	NA	
Protected Phases	7	4						2			6	
Permitted Phases			4							6		
Detector Phase	7	4	4					2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0					10.0		10.0	10.0	
Minimum Split (s)	11.0	20.0	20.0					16.0		16.0	16.0	
Total Split (s)	20.0	20.0	20.0					40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%					66.7%		66.7%	66.7%	
Maximum Green (s)	14.0	14.0	14.0					34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0	-1.0					-1.0		-1.0	-1.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Recall Mode	None	None	None					Min		Min	Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.25	1.11					1.01		1.44	0.81	
Control Delay (s/veh)		20.2	93.9					46.4		263.4	16.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay (s/veh)		20.2	93.9					46.4		263.4	16.9	
Queue Length 50th (ft)		28	~203					~293		~70	182	
Queue Length 95th (ft)		62	#380					#570		#113	262	
Internal Link Dist (ft)		826			679			233			474	
Turn Bay Length (ft)			350							200		
Base Capacity (vph)		382	532					965		107	1029	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.25	1.11					1.01		1.44	0.81	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Cloverleaf Rd. (SR 4025) & Route 283 East Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	0	580	0	0	0	0	477	480	151	813	0
Future Volume (veh/h)	95	0	580	0	0	0	0	477	480	151	813	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.04	1.04	1.04				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1674	1911	1896				0	1752	1780	1747	1832	0
Adj Flow Rate, veh/h	97	0	0				0	487	0	154	830	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	16	0	1				0	6	4	9	3	0
Cap, veh/h	207	0					0	1067		589	1115	0
Arrive On Green	0.11	0.00	0.00				0.00	0.61	0.00	0.61	0.61	0.00
Sat Flow, veh/h	1820	0	1607				0	1752	0	849	1832	0
Grp Volume(v), veh/h	97	0	0				0	487	0	154	830	0
Grp Sat Flow(s),veh/h/ln	1820	0	1607				0	1752	0	849	1832	0
Q Serve(g_s), s	1.8	0.0	0.0				0.0	5.4	0.0	4.3	11.7	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0				0.0	5.4	0.0	9.8	11.7	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	207	0					0	1067		589	1115	0
V/C Ratio(X)	0.47	0.00					0.00	0.46		0.26	0.74	0.00
Avail Cap(c_a), veh/h	757	0					0	1700		895	1778	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	0.0				0.0	3.8	0.0	6.5	5.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.0				0.0	0.3	0.0	0.2	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0				0.0	0.9	0.0	0.8	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	0.0	0.0				0.0	4.1	0.0	6.7	6.1	0.0
LnGrp LOS	B							A		A	A	
Approach Vol, veh/h		97						487			984	
Approach Delay, s/veh		16.6						4.1			6.2	
Approach LOS		B						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	27.0	9.1	27.0
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	14.0	34.0
Max Q Clear Time (g_c+I1), s	7.9	4.3	14.2
Green Ext Time (p_c), s	3.0	0.3	6.8

Intersection Summary	
HCM 7th Control Delay, s/veh	6.2
HCM 7th LOS	A

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

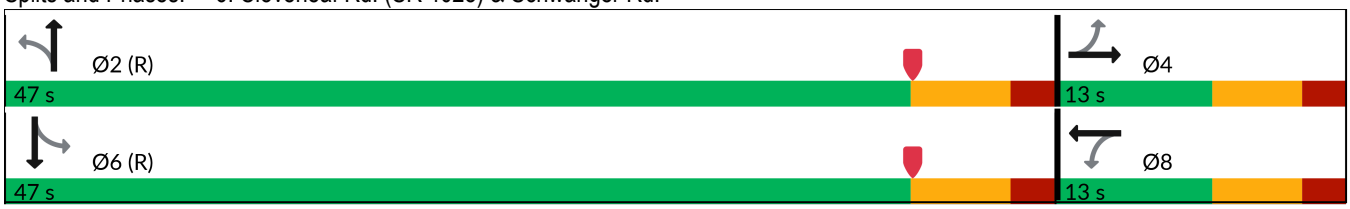
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	100	0	29	78	0	52	762	0	68	1370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	13.0	13.0		13.0	13.0		47.0	47.0		47.0	47.0	
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%		78.3%	78.3%	
Maximum Green (s)	7.0	7.0		7.0	7.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.29	0.36		0.19	0.31		0.46	0.66		0.20	1.18	
Control Delay (s/veh)	199.2	17.0		26.6	20.1		21.6	8.6		4.9	103.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	199.2	17.0		26.6	20.1		21.6	8.6		4.9	103.1	
Queue Length 50th (ft)	~99	15		10	16		7	121		7	~611	
Queue Length 95th (ft)	#211	52		31	50		#57	216		20	#843	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	160	280		152	255		113	1161		348	1165	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.29	0.36		0.19	0.31		0.46	0.66		0.20	1.18	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	207	45	42	29	49	14	52	744	17	68	1037	317
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	274	131	122	242	181	52	123	1240	28	466	962	294
Arrive On Green	0.13	0.13	0.12	0.13	0.13	0.12	0.69	0.69	0.68	0.69	0.69	0.68
Sat Flow, veh/h	1412	983	918	1226	1361	389	411	1792	41	718	1391	425
Grp Volume(v), veh/h	207	0	87	29	0	63	52	0	761	68	0	1354
Grp Sat Flow(s),veh/h/ln	1412	0	1901	1226	0	1750	411	0	1833	718	0	1816
Q Serve(g_s), s	6.6	0.0	2.5	1.3	0.0	1.9	0.5	0.0	13.1	3.3	0.0	41.5
Cycle Q Clear(g_c), s	8.0	0.0	2.5	3.3	0.0	1.9	41.5	0.0	13.1	15.9	0.0	41.5
Prop In Lane	1.00		0.48	1.00		0.22	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	274	0	253	242	0	233	123	0	1268	466	0	1256
V/C Ratio(X)	0.76	0.00	0.34	0.12	0.00	0.27	0.42	0.00	0.60	0.15	0.00	1.08
Avail Cap(c_a), veh/h	274	0	253	242	0	233	123	0	1268	466	0	1256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	23.8	24.9	0.0	23.5	30.0	0.0	4.9	8.9	0.0	9.4
Incr Delay (d2), s/veh	11.3	0.0	0.8	0.2	0.0	0.6	10.2	0.0	2.1	0.7	0.0	49.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	0.0	2.0	0.7	0.0	1.4	1.9	0.0	5.6	0.9	0.0	35.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.9	0.0	24.6	25.1	0.0	24.1	40.2	0.0	7.0	9.6	0.0	58.7
LnGrp LOS	D		C	C		C	D		A	A		F
Approach Vol, veh/h		294			92			813			1422	
Approach Delay, s/veh		34.7			24.4			9.1			56.3	
Approach LOS		C			C			A			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	13.0	47.0	13.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	7.0	40.5	7.0
Max Q Clear Time (g_c+I1), s	15.1	10.5	43.5	5.8
Green Ext Time (p_c), s	18.3	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	38.1
HCM 7th LOS	D

2035 Projected (Build) Conditions W IMP Supplemental

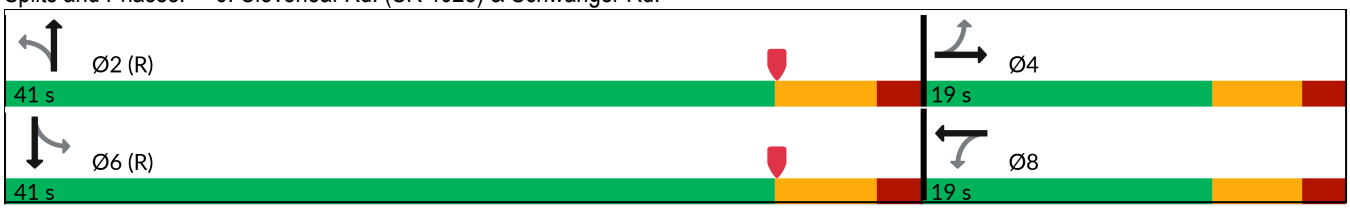
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (vph)	324	32	62	12	16	76	26	1011	20	18	619	159
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	345	100	0	13	98	0	28	1097	0	19	828	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	19.0	19.0		19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%		31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	
Maximum Green (s)	13.0	13.0		13.0	13.0		34.5	34.5		34.5	34.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.25	0.23		0.05	0.23		0.09	0.60		0.09	0.46	
Control Delay (s/veh)	165.1	10.4		18.6	8.5		6.2	9.4		6.5	7.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	165.1	10.4		18.6	8.5		6.2	9.4		6.5	7.0	
Queue Length 50th (ft)	~161	10		4	5		4	114		3	65	
Queue Length 95th (ft)	#301	42		15	36		13	164		11	101	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	276	433		267	427		320	1840		218	1805	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.25	0.23		0.05	0.23		0.09	0.60		0.09	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 45
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Future Volume (veh/h)	324	32	62	12	16	76	26	1011	20	18	619	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	345	34	35	13	17	66	28	1076	21	19	659	151
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	396	218	224	385	76	295	439	2044	40	338	1628	373
Arrive On Green	0.23	0.23	0.22	0.23	0.23	0.22	0.59	0.59	0.57	0.59	0.59	0.57
Sat Flow, veh/h	1387	933	960	1246	326	1266	688	3454	67	536	2752	630
Grp Volume(v), veh/h	345	0	69	13	0	83	28	536	561	19	407	403
Grp Sat Flow(s),veh/h/ln	1387	0	1893	1246	0	1592	688	1722	1800	536	1703	1679
Q Serve(g_s), s	11.9	0.0	1.8	0.5	0.0	2.6	1.4	11.1	11.1	1.3	7.7	7.8
Cycle Q Clear(g_c), s	14.0	0.0	1.8	1.8	0.0	2.6	9.1	11.1	11.1	12.4	7.7	7.8
Prop In Lane	1.00		0.51	1.00		0.80	1.00		0.04	1.00		0.38
Lane Grp Cap(c), veh/h	396	0	442	385	0	371	439	1019	1065	338	1008	994
V/C Ratio(X)	0.87	0.00	0.16	0.03	0.00	0.22	0.06	0.53	0.53	0.06	0.40	0.41
Avail Cap(c_a), veh/h	396	0	442	385	0	371	439	1019	1065	338	1008	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	0.0	18.5	18.8	0.0	18.9	9.0	7.3	7.3	10.9	6.6	6.7
Incr Delay (d2), s/veh	18.7	0.0	0.2	0.0	0.0	0.3	0.3	1.9	1.9	0.3	1.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	0.0	1.3	0.2	0.0	1.6	0.4	5.8	6.1	0.3	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.9	0.0	18.7	18.8	0.0	19.2	9.3	9.2	9.1	11.3	7.8	7.9
LnGrp LOS	D		B	B		B	A	A	A	B	A	A
Approach Vol, veh/h		414			96			1125			829	
Approach Delay, s/veh		39.7			19.2			9.2			7.9	
Approach LOS		D			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.0	19.0	41.0	19.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	34.5	13.0	34.5	13.0
Max Q Clear Time (g_c+I1), s	13.6	16.5	10.2	4.6
Green Ext Time (p_c), s	18.2	0.0	17.2	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	14.3
HCM 7th LOS	B

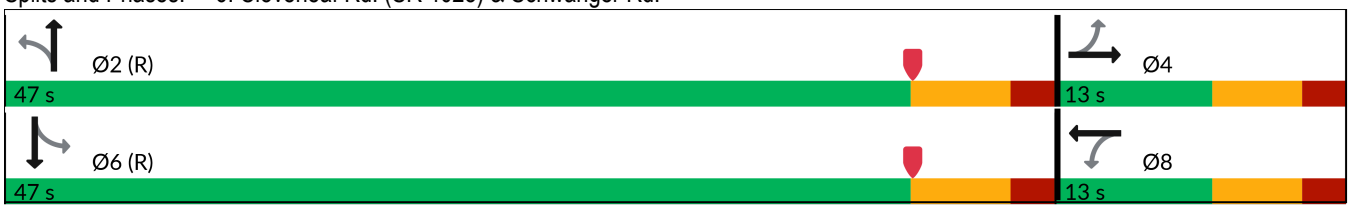
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (vph)	197	43	52	28	47	28	49	707	17	65	985	316
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	100	0	29	78	0	52	762	0	68	1370	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	13.0	13.0		13.0	13.0		47.0	47.0		47.0	47.0	
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%		78.3%	78.3%	
Maximum Green (s)	7.0	7.0		7.0	7.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.29	0.36		0.19	0.31		0.27	0.35		0.16	0.61	
Control Delay (s/veh)	199.2	17.0		26.6	20.1		7.7	4.2		4.3	5.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	199.2	17.0		26.6	20.1		7.7	4.2		4.3	5.7	
Queue Length 50th (ft)	~99	15		10	16		6	45		7	91	
Queue Length 95th (ft)	#211	52		31	50		21	66		18	136	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	160	280		152	255		194	2207		417	2228	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.29	0.36		0.19	0.31		0.27	0.35		0.16	0.61	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Future Volume (veh/h)	197	43	52	28	47	28	49	707	17	65	985	316
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	207	45	42	29	49	14	52	744	17	68	1037	317
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	274	131	122	242	181	52	327	2417	55	557	1879	570
Arrive On Green	0.13	0.13	0.12	0.13	0.13	0.12	0.69	0.69	0.68	0.69	0.69	0.68
Sat Flow, veh/h	1412	983	918	1226	1361	389	411	3495	80	718	2717	824
Grp Volume(v), veh/h	207	0	87	29	0	63	52	372	389	68	683	671
Grp Sat Flow(s),veh/h/ln	1412	0	1901	1226	0	1750	411	1749	1826	718	1798	1744
Q Serve(g_s), s	6.6	0.0	2.5	1.3	0.0	1.9	4.3	5.0	5.0	2.5	11.3	11.8
Cycle Q Clear(g_c), s	8.0	0.0	2.5	3.3	0.0	1.9	15.7	5.0	5.0	7.5	11.3	11.8
Prop In Lane	1.00		0.48	1.00		0.22	1.00		0.04	1.00		0.47
Lane Grp Cap(c), veh/h	274	0	253	242	0	233	327	1209	1263	557	1243	1206
V/C Ratio(X)	0.76	0.00	0.34	0.12	0.00	0.27	0.16	0.31	0.31	0.12	0.55	0.56
Avail Cap(c_a), veh/h	274	0	253	242	0	233	327	1209	1263	557	1243	1206
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	23.8	24.9	0.0	23.5	8.5	3.6	3.6	5.1	4.6	4.8
Incr Delay (d2), s/veh	11.3	0.0	0.8	0.2	0.0	0.6	1.0	0.7	0.6	0.4	1.8	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	0.0	2.0	0.7	0.0	1.4	0.7	1.9	2.0	0.6	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.9	0.0	24.6	25.1	0.0	24.1	9.5	4.3	4.3	5.5	6.4	6.6
LnGrp LOS	D		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h		294			92			813			1422	
Approach Delay, s/veh		34.7			24.4			4.6			6.4	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	13.0	47.0	13.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	7.0	40.5	7.0
Max Q Clear Time (g_c+I1), s	7.5	10.5	13.8	5.8
Green Ext Time (p_c), s	20.0	0.0	24.8	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	9.7
HCM 7th LOS	A

2035 Base (No-Build) Conditions

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	7	167	17	24	256
Future Volume (vph)	48	7	167	17	24	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4452		1084			881
Travel Time (s)	75.9		18.5			17.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	0%	19%	27%	24%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	200	0	0	304
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	7	167	17	24	256
Future Vol, veh/h	48	7	167	17	24	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	0	19	27	24	8
Mvmt Flow	52	8	182	18	26	278

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	521	191	0	0	200	0
Stage 1	191	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.37	6.1	-	-	4.5	-
Critical Hdwy Stg 1	5.37	-	-	-	-	-
Critical Hdwy Stg 2	5.37	-	-	-	-	-
Follow-up Hdwy	3.2	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	559	911	-	-	956	-
Stage 1	920	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	541	911	-	-	956	-
Mov Cap-2 Maneuver	541	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.05	0	0.76
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	154	-
HCM Lane V/C Ratio	-	-	0.105	0.027	-
HCM Ctrl Dly (s/v)	-	-	12	8.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	23	1	167	86	18	314
Future Volume (vph)	23	1	167	86	18	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1084
Travel Time (s)	23.7		12.2			18.5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	40%	0%	21%	0%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	272	0	0	357
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	1	167	86	18	314
Future Vol, veh/h	23	1	167	86	18	314
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	40	0	21	0	0	11
Mvmt Flow	25	1	180	92	19	338

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	602	226	0	0	272	0
Stage 1	226	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	5.8	5.7	-	-	4.3	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.4	3.1	-	-	3	-
Pot Cap-1 Maneuver	526	894	-	-	969	-
Stage 1	870	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	513	894	-	-	969	-
Mov Cap-2 Maneuver	513	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	743	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.25	0	0.48
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	523	98	-
HCM Lane V/C Ratio	-	-	0.049	0.02	-
HCM Ctrl Dly (s/v)	-	-	12.2	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

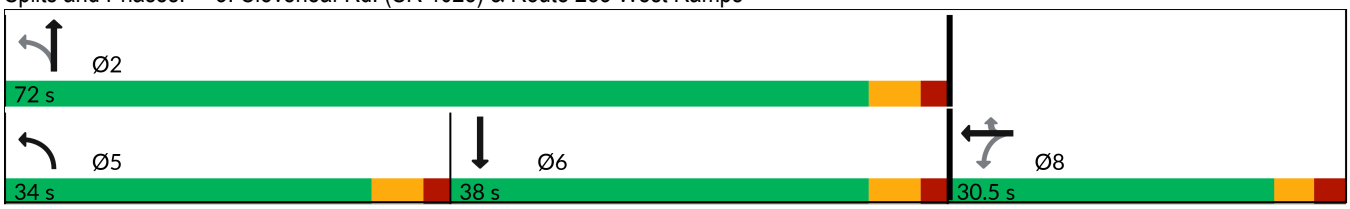
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	394	0	118	653	157	0	0	235	85
Future Volume (vph)	0	0	0	394	0	118	653	157	0	0	235	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	7%	0%	15%	4%	17%	0%	0%	14%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	424	127	702	169	0	0	344	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				30.5	30.5	30.5	34.0	72.0			38.0	
Total Split (%)				29.8%	29.8%	29.8%	33.2%	70.2%			37.1%	
Maximum Green (s)				25.0	25.0	25.0	28.0	66.0			32.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.99	0.29	1.14	0.18			0.84	
Control Delay (s/veh)					77.7	7.5	103.9	7.9			49.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					77.7	7.5	103.9	7.9			49.9	
Queue Length 50th (ft)					257	0	~415	39			185	
Queue Length 95th (ft)					#500	45	#670	67			292	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					429	437	615	1044			533	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.99	0.29	1.14	0.16			0.65	

Intersection Summary

Area Type: Other
Cycle Length: 102.5
Actuated Cycle Length: 94.9
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	118	653	157	0	0	235	85
Future Volume (veh/h)	0	0	0	394	0	118	653	157	0	0	235	85
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1775	1875	1661	1722	1539	0	0	1675	1704
Adj Flow Rate, veh/h				424	0	0	702	169	0	0	253	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				7	0	15	4	17	0	0	14	12
Cap, veh/h				483	0		725	954	0	0	383	
Arrive On Green				0.26	0.00	0.00	0.33	0.62	0.00	0.00	0.23	0.00
Sat Flow, veh/h				1785	0	1408	1640	1539	0	0	1675	0
Grp Volume(v), veh/h				424	0	0	702	169	0	0	253	0
Grp Sat Flow(s),veh/h/ln				1785	0	1408	1640	1539	0	0	1675	0
Q Serve(g_s), s				19.8	0.0	0.0	26.9	4.1	0.0	0.0	11.9	0.0
Cycle Q Clear(g_c), s				19.8	0.0	0.0	26.9	4.1	0.0	0.0	11.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				483	0		725	954	0	0	383	
V/C Ratio(X)				0.88	0.00		0.97	0.18	0.00	0.00	0.66	
Avail Cap(c_a), veh/h				534	0		725	1187	0	0	637	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				30.8	0.0	0.0	15.3	7.0	0.0	0.0	30.4	0.0
Incr Delay (d2), s/veh				14.4	0.0	0.0	25.7	0.3	0.0	0.0	6.9	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.6	0.0	0.0	19.3	2.1	0.0	0.0	9.0	0.0
Unsig. Movement Delay, s/veh						8.50						
LnGrp Delay(d), s/veh				45.2	0.0	8.5	40.9	7.4	0.0	0.0	37.3	0.0
LnGrp LOS				D		A	D	A			D	
Approach Vol, veh/h					520			871			253	
Approach Delay, s/veh					38.4			34.4			37.3	
Approach LOS					D			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	58.9	34.0	24.9	28.0
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	66.0	28.0	32.0	25.0
Max Q Clear Time (g_c+I1), s	6.6	29.4	14.4	21.8
Green Ext Time (p_c), s	4.7	0.0	4.4	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	36.1
HCM 7th LOS	D

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	0	338	0	0	0	0	773	672	146	482	0
Future Volume (vph)	37	0	338	0	0	0	0	773	672	146	482	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	22%	0%	7%	0%	0%	0%	0%	5%	3%	12%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	0	380	0	0	0	0	1624	0	164	542	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	0	338	0	0	0	0	773	672	146	482	0
Future Vol, veh/h	37	0	338	0	0	0	0	773	672	146	482	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	22	0	7	0	0	0	0	5	3	12	6	0
Mvmt Flow	42	0	380	0	0	0	0	869	755	164	542	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1738	-	542	-	0	0	869	0	0
Stage 1	870	-	-	-	-	-	-	-	-
Stage 2	869	-	-	-	-	-	-	-	-
Critical Hdwy	6.42	-	6.17	-	-	-	4.4	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	3.2	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	100	0	560	0	-	-	570	-	0
Stage 1	436	0	-	0	-	-	-	-	0
Stage 2	437	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	71	0	560	-	-	-	570	-	-
Mov Cap-2 Maneuver	71	0	-	-	-	-	-	-	-
Stage 1	436	0	-	-	-	-	-	-	-
Stage 2	311	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	32.49	0	3.22
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	71	560	570	-
HCM Lane V/C Ratio	-	-	0.586	0.678	0.288	-
HCM Ctrl Dly (s/v)	-	-	111.2	23.9	13.8	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2.5	5.1	1.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	10	9	1440	801	20
Future Volume (vph)	5	10	9	1440	801	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	0%	5%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	1558	883	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	10	9	1440	801	20
Future Vol, veh/h	5	10	9	1440	801	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	11	0	5	9	6
Mvmt Flow	5	11	10	1548	861	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2440	872	883	0	-	0
Stage 1	872	-	-	-	-	-
Stage 2	1568	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	37	351	591	-	-	-
Stage 1	456	-	-	-	-	-
Stage 2	205	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	32	351	591	-	-	-
Mov Cap-2 Maneuver	32	-	-	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	205	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	59.33	0.07	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	11	-	82	-	-
HCM Lane V/C Ratio	0.016	-	0.197	-	-
HCM Ctrl Dly (s/v)	11.2	0	59.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

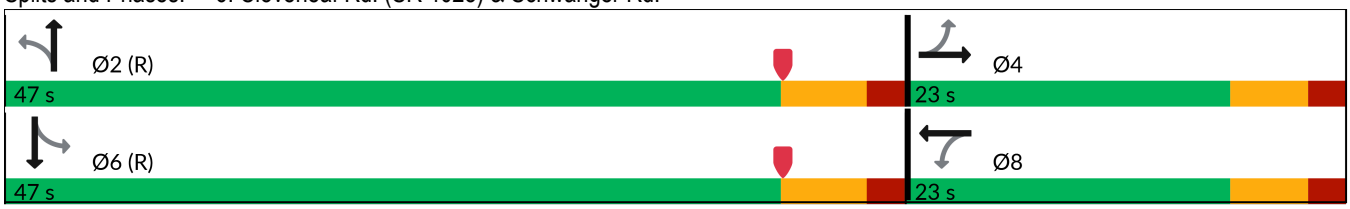
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	30	64	8	16	79	28	1030	8	18	638	166
Future Volume (vph)	335	30	64	8	16	79	28	1030	8	18	638	166
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	356	100	0	9	101	0	30	1105	0	19	856	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	23.0	23.0		23.0	23.0		47.0	47.0		47.0	47.0	
Total Split (%)	32.9%	32.9%		32.9%	32.9%		67.1%	67.1%		67.1%	67.1%	
Maximum Green (s)	17.0	17.0		17.0	17.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.17	0.21		0.03	0.22		0.17	1.13		0.20	0.90	
Control Delay (s/veh)	136.2	10.3		20.0	8.4		9.3	91.1		12.5	27.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	136.2	10.3		20.0	8.4		9.3	91.1		12.5	27.9	
Queue Length 50th (ft)	~187	10		3	6		5	~570		3	280	
Queue Length 95th (ft)	#339	44		13	39		19	#798		16	#555	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	303	470		294	464		177	975		97	946	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.17	0.21		0.03	0.22		0.17	1.13		0.20	0.90	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	30	64	8	16	79	28	1030	8	18	638	166
Future Volume (veh/h)	335	30	64	8	16	79	28	1030	8	18	638	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	356	32	37	9	17	69	30	1096	9	19	679	159
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	409	225	260	397	81	328	249	1064	9	107	833	195
Arrive On Green	0.26	0.26	0.24	0.26	0.26	0.24	0.59	0.59	0.58	0.59	0.59	0.58
Sat Flow, veh/h	1383	874	1010	1246	314	1276	670	1795	15	532	1405	329
Grp Volume(v), veh/h	356	0	69	9	0	86	30	0	1105	19	0	838
Grp Sat Flow(s),veh/h/ln	1383	0	1884	1246	0	1590	670	0	1810	532	0	1733
Q Serve(g_s), s	15.5	0.0	2.0	0.4	0.0	3.0	2.6	0.0	41.5	0.5	0.0	26.7
Cycle Q Clear(g_c), s	18.0	0.0	2.0	1.9	0.0	3.0	28.8	0.0	41.5	41.5	0.0	26.7
Prop In Lane	1.00		0.54	1.00		0.80	1.00		0.01	1.00		0.19
Lane Grp Cap(c), veh/h	409	0	484	397	0	409	249	0	1073	107	0	1028
V/C Ratio(X)	0.87	0.00	0.14	0.02	0.00	0.21	0.12	0.00	1.03	0.18	0.00	0.82
Avail Cap(c_a), veh/h	409	0	484	397	0	409	249	0	1073	107	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	20.3	20.6	0.0	20.7	22.4	0.0	14.3	35.0	0.0	11.3
Incr Delay (d2), s/veh	18.1	0.0	0.1	0.0	0.0	0.3	1.0	0.0	35.4	3.6	0.0	7.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.4	0.0	1.5	0.2	0.0	1.9	0.8	0.0	31.1	0.7	0.0	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.4	0.0	20.4	20.6	0.0	21.0	23.4	0.0	49.7	38.6	0.0	18.4
LnGrp LOS	D		C	C		C	C		F	D		B
Approach Vol, veh/h		425			95			1135			857	
Approach Delay, s/veh		42.2			21.0			49.0			18.9	
Approach LOS		D			C			D			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	23.0	47.0	23.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	17.0	40.5	17.0
Max Q Clear Time (g_c+I1), s	43.5	20.5	28.7	5.0
Green Ext Time (p_c), s	0.0	0.0	10.1	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	249	1	22	185	5	0	5	39	44	5	26
Future Volume (vph)	14	249	1	22	185	5	0	5	39	44	5	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	284	0	25	216	0	0	50	0	0	86	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	249	1	22	185	5	0	5	39	44	5	26
Future Vol, veh/h	14	249	1	22	185	5	0	5	39	44	5	26
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	17	2	0	5	1	0	0	0	3	5	0	4
Mvmt Flow	16	283	1	25	210	6	0	6	44	50	6	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	284	0	0	578	582	284	582	580	214
Stage 1	-	-	-	-	-	-	315	315	-	264	264	-
Stage 2	-	-	-	-	-	-	263	267	-	318	316	-
Critical Hdwy	4.5	-	-	4.4	-	-	7.3	6.7	6.33	6.6	5.9	5.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Follow-up Hdwy	3.2	-	-	3	-	-	3	4	3.1	3	4	3.1
Pot Cap-1 Maneuver	943	-	-	952	-	-	468	414	795	521	472	893
Stage 1	-	-	-	-	-	-	786	648	-	890	725	-
Stage 2	-	-	-	-	-	-	843	682	-	837	694	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	952	-	-	428	395	795	464	451	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	428	395	-	464	451	-
Stage 1	-	-	-	-	-	-	773	637	-	865	705	-
Stage 2	-	-	-	-	-	-	788	663	-	770	682	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.47	0.92	10.43	12.65
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	713	942	-	-	952	-	-	556
HCM Lane V/C Ratio	0.07	0.017	-	-	0.026	-	-	0.153
HCM Ctrl Dly (s/v)	10.4	8.9	-	-	8.9	-	-	12.7
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	36	5	18	49	2	23
Future Volume (vph)	36	5	18	49	2	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4452			1252	852	
Travel Time (s)	75.9			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	19%	7%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	0	90	34	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	36	5	18	49	2	23
Future Vol, veh/h	36	5	18	49	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	16	0	19	7	0	5
Mvmt Flow	49	7	24	66	3	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	55	0	167	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	115	-
Critical Hdwy	-	-	4.5	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.2	-	3	3.1
Pot Cap-1 Maneuver	-	-	1076	-	955	1085
Stage 1	-	-	-	-	1134	-
Stage 2	-	-	-	-	1059	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1076	-	933	1085
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	1134	-
Stage 2	-	-	-	-	1034	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.26	8.47
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1071	-	-	484	-
HCM Lane V/C Ratio	0.032	-	-	0.023	-
HCM Ctrl Dly (s/v)	8.5	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	118	157	0	0	0
Future Volume (vph)	0	118	157	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	184		118			92
Travel Time (s)	5.0		2.0			1.6
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	15%	17%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	169	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	118	157	0	0	0
Future Vol, veh/h	0	118	157	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	15	17	0	0	0
Mvmt Flow	0	127	169	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	169	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1163	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1163	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.47	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1163
HCM Lane V/C Ratio	-	0.109
HCM Ctrl Dly (s/v)	-	8.5
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.4

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	17	323	56	22	197
Future Volume (vph)	17	17	323	56	22	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	4447		1057			908
Travel Time (s)	75.8		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	13%	5%	2%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	0	404	0	0	233
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	17	323	56	22	197
Future Vol, veh/h	17	17	323	56	22	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	20	13	5	2	0	3
Mvmt Flow	18	18	344	60	23	210

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	630	373	0	0	403	0
Stage 1	373	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.4	6.23	-	-	4.3	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	-	-	3	-
Pot Cap-1 Maneuver	480	693	-	-	873	-
Stage 1	755	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	465	693	-	-	873	-
Mov Cap-2 Maneuver	465	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.92	0	0.93
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	556	181	-
HCM Lane V/C Ratio	-	-	0.065	0.027	-
HCM Ctrl Dly (s/v)	-	-	11.9	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	159	67	285	15	5	209
Future Volume (vph)	159	67	285	15	5	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	11%	31%	25%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	301	0	400	0	0	286
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	67	285	15	5	209
Future Vol, veh/h	159	67	285	15	5	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	2	11	31	25	7
Mvmt Flow	212	89	380	20	7	279

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	682	390	0	0	400	0
Stage 1	390	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	5.43	5.72	-	-	4.6	-
Critical Hdwy Stg 1	4.43	-	-	-	-	-
Critical Hdwy Stg 2	4.43	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	562	736	-	-	802	-
Stage 1	870	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	557	736	-	-	802	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.9	0	0.22
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	42	-
HCM Lane V/C Ratio	-	-	0.502	0.008	-
HCM Ctrl Dly (s/v)	-	-	16.9	9.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.8	0	-

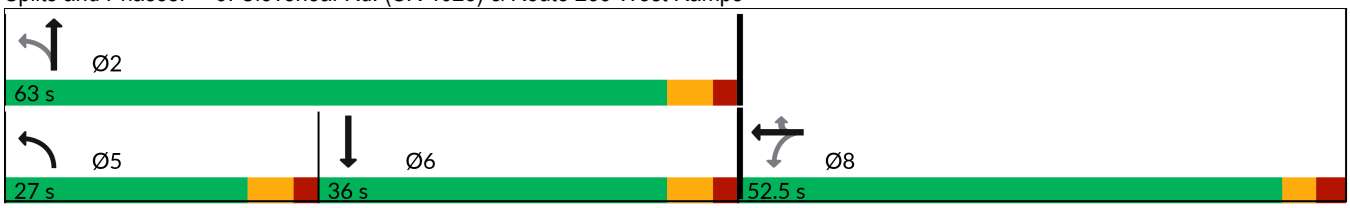
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	686	0	164	352	216	0	0	224	56
Future Volume (vph)	0	0	0	686	0	164	352	216	0	0	224	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	6%	6%	7%	0%	0%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	715	171	367	225	0	0	291	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				52.5	52.5	52.5	27.0	63.0			36.0	
Total Split (%)				45.5%	45.5%	45.5%	23.4%	54.5%			31.2%	
Maximum Green (s)				47.0	47.0	47.0	21.0	57.0			30.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					0.99	0.24	0.88	0.30			0.81	
Control Delay (s/veh)					61.8	4.1	44.3	18.9			56.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					61.8	4.1	44.3	18.9			56.6	
Queue Length 50th (ft)					480	0	167	92			185	
Queue Length 95th (ft)					#818	42	#301	142			283	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					724	703	418	870			482	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.99	0.24	0.88	0.26			0.60	

Intersection Summary	
Area Type:	Other
Cycle Length: 115.5	
Actuated Cycle Length: 107.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	686	0	164	352	216	0	0	224	56
Future Volume (veh/h)	0	0	0	686	0	164	352	216	0	0	224	56
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1832	1875	1789	1693	1679	0	0	1832	1761
Adj Flow Rate, veh/h				715	0	0	367	225	0	0	233	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				3	0	6	6	7	0	0	3	8
Cap, veh/h				786	0		496	769	0	0	359	
Arrive On Green				0.43	0.00	0.00	0.21	0.46	0.00	0.00	0.20	0.00
Sat Flow, veh/h				1785	0	1516	1613	1679	0	0	1832	0
Grp Volume(v), veh/h				715	0	0	367	225	0	0	233	0
Grp Sat Flow(s),veh/h/ln				1785	0	1516	1613	1679	0	0	1832	0
Q Serve(g_s), s				35.1	0.0	0.0	15.7	7.8	0.0	0.0	11.0	0.0
Cycle Q Clear(g_c), s				35.1	0.0	0.0	15.7	7.8	0.0	0.0	11.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				786	0		496	769	0	0	359	
V/C Ratio(X)				0.91	0.00		0.74	0.29	0.00	0.00	0.65	
Avail Cap(c_a), veh/h				915	0		538	1040	0	0	606	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				25.0	0.0	0.0	21.1	15.9	0.0	0.0	34.7	0.0
Incr Delay (d2), s/veh				11.7	0.0	0.0	5.0	0.8	0.0	0.0	7.0	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				23.7	0.0	0.0	10.2	5.3	0.0	0.0	9.2	0.0
Unsig. Movement Delay, s/veh						8.90						
LnGrp Delay(d), s/veh				36.7	0.0	8.9	26.1	16.6	0.0	0.0	41.7	0.0
LnGrp LOS				D		A	C	B			D	
Approach Vol, veh/h					827			592			233	
Approach Delay, s/veh					32.9			22.5			41.7	
Approach LOS					C			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	47.9	24.6	23.3	45.7
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	57.0	21.0	30.0	47.0
Max Q Clear Time (g_c+I1), s	10.3	18.2	13.5	37.1
Green Ext Time (p_c), s	6.2	0.4	3.9	3.1

Intersection Summary	
HCM 7th Control Delay, s/veh	30.4
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	0	605	0	0	0	0	488	501	97	814	0
Future Volume (vph)	81	0	605	0	0	0	0	488	501	97	814	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	0%	1%	0%	0%	0%	0%	6%	4%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	0	617	0	0	0	0	1009	0	99	831	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	69.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	0	605	0	0	0	0	488	501	97	814	0
Future Vol, veh/h	81	0	605	0	0	0	0	488	501	97	814	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	7	0	1	0	0	0	0	6	4	2	3	0
Mvmt Flow	83	0	617	0	0	0	0	498	511	99	831	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1527	-	831	-	0	0	498	0	0
Stage 1	1029	-	-	-	-	-	-	-	-
Stage 2	498	-	-	-	-	-	-	-	-
Critical Hdwy	6.27	-	6.11	-	-	-	4.3	-	-
Critical Hdwy Stg 1	5.27	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.27	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	3.1	-	-	-	3	-	-
Pot Cap-1 Maneuver	146	0	~ 397	0	-	-	809	-	0
Stage 1	388	0	-	0	-	-	-	-	0
Stage 2	689	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	128	0	~ 397	-	-	-	809	-	-
Mov Cap-2 Maneuver	128	0	-	-	-	-	-	-	-
Stage 1	388	0	-	-	-	-	-	-	-
Stage 2	605	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	261.86	0	1.07
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	128	397	809	-
HCM Lane V/C Ratio	-	-	0.644	1.555	0.122	-
HCM Ctrl Dly (s/v)	-	-	73.6	287.1	10.1	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	3.4	34.3	0.4	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	14	5	972	1418	1
Future Volume (vph)	17	14	5	972	1418	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	0%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	0	1028	1494	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	14	5	972	1418	1
Future Vol, veh/h	17	14	5	972	1418	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	13	0	0	4	3	0
Mvmt Flow	18	15	5	1023	1493	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2527	1493	1494	0	-	0
Stage 1	1493	-	-	-	-	-
Stage 2	1034	-	-	-	-	-
Critical Hdwy	6.53	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	3	-	-	-
Pot Cap-1 Maneuver	29	158	352	-	-	-
Stage 1	208	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	28	158	352	-	-	-
Mov Cap-2 Maneuver	28	-	-	-	-	-
Stage 1	201	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	198.3	0.08	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	45	-	-
HCM Lane V/C Ratio	0.015	-	0.73	-	-
HCM Ctrl Dly (s/v)	15.4	0	198.3	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0	-	2.8	-	-

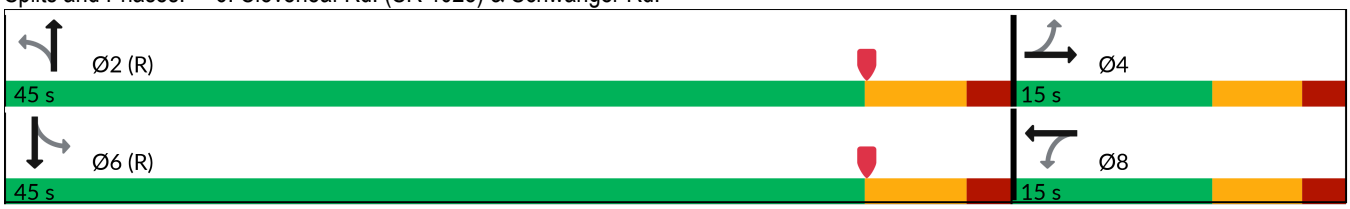
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	205	44	54	14	45	29	52	728	14	68	997	327
Future Volume (vph)	205	44	54	14	45	29	52	728	14	68	997	327
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	103	0	15	78	0	55	781	0	72	1393	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	15.0	15.0		15.0	15.0		45.0	45.0		45.0	45.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%		75.0%	75.0%	
Maximum Green (s)	9.0	9.0		9.0	9.0		38.5	38.5		38.5	38.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.08	0.30		0.08	0.25		0.49	0.71		0.24	1.26	
Control Delay (s/veh)	117.0	14.6		22.4	17.2		24.7	11.0		6.6	138.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	117.0	14.6		22.4	17.2		24.7	11.0		6.6	138.9	
Queue Length 50th (ft)	~90	14		5	15		8	147		9	~652	
Queue Length 95th (ft)	#205	51		19	47		#60	263		25	#885	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	200	338		190	312		113	1105		300	1109	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.08	0.30		0.08	0.25		0.49	0.71		0.24	1.26	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	44	54	14	45	29	52	728	14	68	997	327
Future Volume (veh/h)	205	44	54	14	45	29	52	728	14	68	997	327
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	216	46	44	15	47	16	55	766	14	72	1049	328
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	323	162	155	283	216	74	123	1186	22	412	910	285
Arrive On Green	0.17	0.17	0.15	0.17	0.17	0.15	0.66	0.66	0.64	0.66	0.66	0.64
Sat Flow, veh/h	1412	970	928	1222	1298	442	402	1802	33	706	1382	432
Grp Volume(v), veh/h	216	0	90	15	0	63	55	0	780	72	0	1377
Grp Sat Flow(s),veh/h/ln	1412	0	1899	1222	0	1740	402	0	1835	706	0	1814
Q Serve(g_s), s	8.6	0.0	2.5	0.6	0.0	1.9	0.5	0.0	15.2	4.0	0.0	39.5
Cycle Q Clear(g_c), s	10.0	0.0	2.5	2.7	0.0	1.9	39.5	0.0	15.2	18.7	0.0	39.5
Prop In Lane	1.00		0.49	1.00		0.25	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	323	0	316	283	0	290	123	0	1208	412	0	1194
V/C Ratio(X)	0.67	0.00	0.28	0.05	0.00	0.22	0.45	0.00	0.65	0.17	0.00	1.15
Avail Cap(c_a), veh/h	323	0	316	283	0	290	123	0	1208	412	0	1194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	22.1	22.8	0.0	21.7	30.0	0.0	6.1	11.5	0.0	10.4
Incr Delay (d2), s/veh	5.3	0.0	0.5	0.1	0.0	0.4	11.2	0.0	2.7	0.9	0.0	78.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	1.9	0.3	0.0	1.3	2.0	0.0	7.4	1.1	0.0	49.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.2	0.0	22.6	22.9	0.0	22.1	41.2	0.0	8.8	12.4	0.0	89.1
LnGrp LOS	C		C	C		C	D		A	B		F
Approach Vol, veh/h		306			78			835			1449	
Approach Delay, s/veh		28.7			22.3			10.9			85.3	
Approach LOS		C			C			B			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	15.0	45.0	15.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	38.5	9.0	38.5	9.0
Max Q Clear Time (g_c+I1), s	17.2	12.5	41.5	5.2
Green Ext Time (p_c), s	16.2	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	53.7
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	297	5	91	242	47	1	9	38	20	9	18
Future Volume (vph)	26	297	5	91	242	47	1	9	38	20	9	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	336	0	101	321	0	0	53	0	0	52	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	297	5	91	242	47	1	9	38	20	9	18
Future Vol, veh/h	26	297	5	91	242	47	1	9	38	20	9	18
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	1	1	2	0	13	3	6	13	6
Mvmt Flow	29	330	6	101	269	52	1	10	42	22	10	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	322	0	0	336	0	0	867	915	334	892	892	296
Stage 1	-	-	-	-	-	-	391	391	-	498	498	-
Stage 2	-	-	-	-	-	-	476	524	-	394	393	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.3	6.83	6.33	6.56	6.03	5.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.117	3.1	3.1	4.117	3.2
Pot Cap-1 Maneuver	931	-	-	921	-	-	291	249	743	327	313	784
Stage 1	-	-	-	-	-	-	710	576	-	662	572	-
Stage 2	-	-	-	-	-	-	632	497	-	745	627	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	930	-	-	921	-	-	236	214	742	255	270	783
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	214	-	255	270	-
Stage 1	-	-	-	-	-	-	688	558	-	588	509	-
Stage 2	-	-	-	-	-	-	537	442	-	668	607	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.71	2.25	13.19	17.13
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	493	930	-	-	921	-	-	349
HCM Lane V/C Ratio	0.108	0.031	-	-	0.11	-	-	0.15
HCM Ctrl Dly (s/v)	13.2	9	-	-	9.4	-	-	17.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.4	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	7	30	35	5	26
Future Volume (vph)	79	7	30	35	5	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	4447			1252	852	
Travel Time (s)	75.8			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	3%	25%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	98	0	0	74	36	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	7	30	35	5	26
Future Vol, veh/h	79	7	30	35	5	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	0	15	3	25	4
Mvmt Flow	90	8	34	40	6	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	98	0	202	94
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	-	-	4.5	-	6.65	6.24
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	3.1	-	3.2	3.1
Pot Cap-1 Maneuver	-	-	1072	-	847	1027
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	996	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1072	-	819	1027
Mov Cap-2 Maneuver	-	-	-	-	819	-
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	964	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.91	8.78
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	987	-	-	831	-
HCM Lane V/C Ratio	0.036	-	-	0.032	-
HCM Ctrl Dly (s/v)	8.8	-	-	8.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	164	216	0	0	0
Future Volume (vph)	0	164	216	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	278		122			129
Travel Time (s)	7.6		2.1			2.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	171	225	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	164	216	0	0	0
Future Vol, veh/h	0	164	216	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	6	7	0	0	0
Mvmt Flow	0	171	225	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	225	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1098	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1098	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.88	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1098
HCM Lane V/C Ratio	-	0.156
HCM Ctrl Dly (s/v)	-	8.9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.6

2035 Projected (Build) Conditions

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	10	167	40	33	256
Future Volume (vph)	55	10	167	40	33	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	1309		1084			881
Travel Time (s)	22.3		18.5			17.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	0%	19%	27%	24%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	225	0	0	314
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	10	167	40	33	256
Future Vol, veh/h	55	10	167	40	33	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	0	19	27	24	8
Mvmt Flow	60	11	182	43	36	278

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	553	203	0	0	225	0
Stage 1	203	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.37	6.1	-	-	4.5	-
Critical Hdwy Stg 1	5.37	-	-	-	-	-
Critical Hdwy Stg 2	5.37	-	-	-	-	-
Follow-up Hdwy	3.2	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	535	897	-	-	937	-
Stage 1	908	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	511	897	-	-	937	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.55	0	1.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	206	-
HCM Lane V/C Ratio	-	-	0.129	0.038	-
HCM Ctrl Dly (s/v)	-	-	12.6	9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	62	1	190	176	18	321
Future Volume (vph)	62	1	190	176	18	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1084
Travel Time (s)	23.7		12.2			18.5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	44%	0%	21%	14%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	393	0	0	364
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	1	190	176	18	321
Future Vol, veh/h	62	1	190	176	18	321
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	44	0	21	14	0	11
Mvmt Flow	67	1	204	189	19	345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	683	299	0	0	394	0
Stage 1	299	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Critical Hdwy	5.84	5.7	-	-	4.3	-
Critical Hdwy Stg 1	4.84	-	-	-	-	-
Critical Hdwy Stg 2	4.84	-	-	-	-	-
Follow-up Hdwy	3.4	3.1	-	-	3	-
Pot Cap-1 Maneuver	475	821	-	-	880	-
Stage 1	813	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	462	821	-	-	880	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	733	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.06	0	0.49
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	465	96	-
HCM Lane V/C Ratio	-	-	0.146	0.022	-
HCM Ctrl Dly (s/v)	-	-	14.1	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

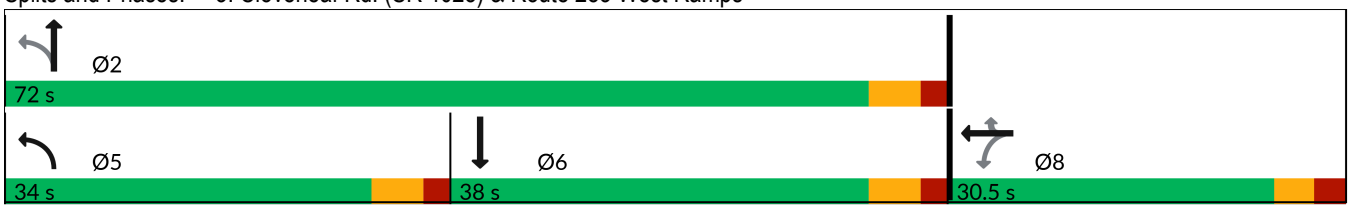
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	394	0	169	653	217	0	0	266	100
Future Volume (vph)	0	0	0	394	0	169	653	217	0	0	266	100
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	7%	0%	17%	4%	17%	0%	0%	14%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	424	182	702	233	0	0	394	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				30.5	30.5	30.5	34.0	72.0			38.0	
Total Split (%)				29.8%	29.8%	29.8%	33.2%	70.2%			37.1%	
Maximum Green (s)				25.0	25.0	25.0	28.0	66.0			32.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					1.03	0.40	1.19	0.25			0.89	
Control Delay (s/veh)					89.3	7.5	123.1	8.3			55.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					89.3	7.5	123.1	8.3			55.0	
Queue Length 50th (ft)					~304	0	~461	57			224	
Queue Length 95th (ft)					#500	54	#689	91			#382	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					413	460	591	1005			507	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					1.03	0.40	1.19	0.23			0.78	

Intersection Summary

Area Type: Other
Cycle Length: 102.5
Actuated Cycle Length: 98.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	169	653	217	0	0	266	100
Future Volume (veh/h)	0	0	0	394	0	169	653	217	0	0	266	100
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1775	1875	1633	1722	1539	0	0	1675	1619
Adj Flow Rate, veh/h				424	0	0	702	233	0	0	286	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				7	0	17	4	17	0	0	14	18
Cap, veh/h				479	0		703	963	0	0	413	
Arrive On Green				0.26	0.00	0.00	0.32	0.63	0.00	0.00	0.25	0.00
Sat Flow, veh/h				1785	0	1384	1640	1539	0	0	1675	0
Grp Volume(v), veh/h				424	0	0	702	233	0	0	286	0
Grp Sat Flow(s),veh/h/ln				1785	0	1384	1640	1539	0	0	1675	0
Q Serve(g_s), s				20.5	0.0	0.0	28.9	6.0	0.0	0.0	13.9	0.0
Cycle Q Clear(g_c), s				20.5	0.0	0.0	28.9	6.0	0.0	0.0	13.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				479	0		703	963	0	0	413	
V/C Ratio(X)				0.89	0.00		1.00	0.24	0.00	0.00	0.69	
Avail Cap(c_a), veh/h				518	0		703	1150	0	0	617	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				32.0	0.0	0.0	17.4	7.4	0.0	0.0	30.7	0.0
Incr Delay (d2), s/veh				15.9	0.0	0.0	33.7	0.5	0.0	0.0	7.3	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				16.3	0.0	0.0	22.1	3.2	0.0	0.0	10.2	0.0
Unsig. Movement Delay, s/veh						9.00						
LnGrp Delay(d), s/veh				47.9	0.0	9.0	51.1	7.9	0.0	0.0	38.0	0.0
LnGrp LOS				D		A	D	A			D	
Approach Vol, veh/h					575			935			286	
Approach Delay, s/veh					37.7			40.3			38.0	
Approach LOS					D			D			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	61.1	34.0	27.1	28.6
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	66.0	28.0	32.0	25.0
Max Q Clear Time (g_c+I1), s	8.5	31.4	16.4	22.5
Green Ext Time (p_c), s	6.8	0.0	4.7	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	39.1
HCM 7th LOS	D

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	0	338	0	0	0	0	800	672	169	490	0
Future Volume (vph)	70	0	338	0	0	0	0	800	672	169	490	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	26%	0%	7%	0%	0%	0%	0%	5%	3%	16%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	0	380	0	0	0	0	1654	0	190	551	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	14.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	0	338	0	0	0	0	800	672	169	490	0
Future Vol, veh/h	70	0	338	0	0	0	0	800	672	169	490	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	26	0	7	0	0	0	0	5	3	16	6	0
Mvmt Flow	79	0	380	0	0	0	0	899	755	190	551	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1829	-	551	-	0	0	899	0	0
Stage 1	930	-	-	-	-	-	-	-	-
Stage 2	899	-	-	-	-	-	-	-	-
Critical Hdwy	6.46	-	6.17	-	-	-	4.5	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	-	3.2	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	85	0	554	0	-	-	542	-	0
Stage 1	403	0	-	0	-	-	-	-	0
Stage 2	418	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 56	0	554	-	-	-	542	-	-
Mov Cap-2 Maneuver	~ 56	0	-	-	-	-	-	-	-
Stage 1	403	0	-	-	-	-	-	-	-
Stage 2	272	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	86.71	0	3.89
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	56	554	542	-
HCM Lane V/C Ratio	-	-	1.416	0.686	0.35	-
HCM Ctrl Dly (s/v)	-	-	$ 387.1	24.5	15.2	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	7.1	5.3	1.6	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	10	9	1467	809	20
Future Volume (vph)	5	10	9	1467	809	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	0%	5%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	1587	892	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	10	9	1467	809	20
Future Vol, veh/h	5	10	9	1467	809	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	11	0	5	9	6
Mvmt Flow	5	11	10	1577	870	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2477	881	891	0	-	0
Stage 1	881	-	-	-	-	-
Stage 2	1597	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.2	3	-	-	-
Pot Cap-1 Maneuver	35	347	586	-	-	-
Stage 1	452	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	30	347	586	-	-	-
Mov Cap-2 Maneuver	30	-	-	-	-	-
Stage 1	392	-	-	-	-	-
Stage 2	198	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	63.89	0.07	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	11	-	77	-	-
HCM Lane V/C Ratio	0.017	-	0.21	-	-
HCM Ctrl Dly (s/v)	11.2	0	63.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

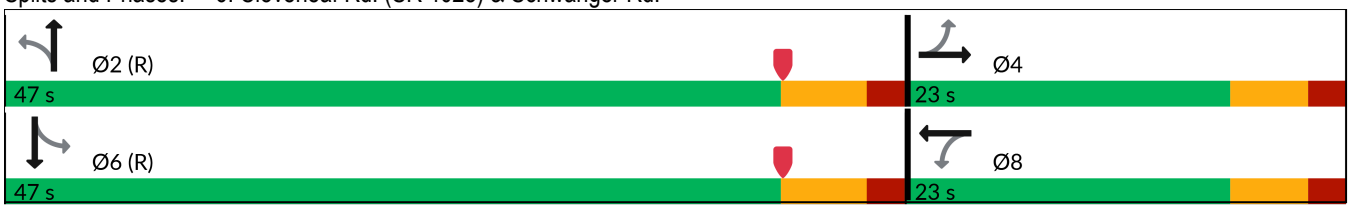
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	361	103	0	13	102	0	30	1142	0	19	864	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	23.0	23.0		23.0	23.0		47.0	47.0		47.0	47.0	
Total Split (%)	32.9%	32.9%		32.9%	32.9%		67.1%	67.1%		67.1%	67.1%	
Maximum Green (s)	17.0	17.0		17.0	17.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.20	0.22		0.04	0.22		0.17	1.18		0.20	0.91	
Control Delay (s/veh)	143.7	10.5		20.2	8.5		9.5	109.2		12.5	29.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	143.7	10.5		20.2	8.5		9.5	109.2		12.5	29.1	
Queue Length 50th (ft)	~192	11		4	6		5	~607		3	286	
Queue Length 95th (ft)	#345	46		17	40		19	#838		16	#563	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	302	472		293	465		173	970		97	946	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.20	0.22		0.04	0.22		0.17	1.18		0.20	0.91	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	361	35	37	13	18	69	30	1121	21	19	686	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	408	236	250	394	85	325	243	1051	20	107	833	194
Arrive On Green	0.26	0.26	0.24	0.26	0.26	0.24	0.59	0.59	0.58	0.59	0.59	0.58
Sat Flow, veh/h	1382	919	972	1243	329	1263	665	1773	33	513	1406	328
Grp Volume(v), veh/h	361	0	72	13	0	87	30	0	1142	19	0	846
Grp Sat Flow(s),veh/h/ln	1382	0	1891	1243	0	1592	665	0	1806	513	0	1734
Q Serve(g_s), s	15.5	0.0	2.1	0.6	0.0	3.0	2.6	0.0	41.5	0.5	0.0	27.2
Cycle Q Clear(g_c), s	18.0	0.0	2.1	2.1	0.0	3.0	29.3	0.0	41.5	41.5	0.0	27.2
Prop In Lane	1.00		0.51	1.00		0.79	1.00		0.02	1.00		0.19
Lane Grp Cap(c), veh/h	408	0	486	394	0	409	243	0	1071	107	0	1028
V/C Ratio(X)	0.88	0.00	0.15	0.03	0.00	0.21	0.12	0.00	1.07	0.18	0.00	0.82
Avail Cap(c_a), veh/h	408	0	486	394	0	409	243	0	1071	107	0	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	20.3	20.7	0.0	20.8	22.8	0.0	14.3	35.0	0.0	11.4
Incr Delay (d2), s/veh	20.1	0.0	0.1	0.0	0.0	0.3	1.0	0.0	47.0	3.6	0.0	7.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.8	0.0	1.6	0.3	0.0	2.0	0.8	0.0	36.2	0.7	0.0	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.5	0.0	20.4	20.8	0.0	21.0	23.9	0.0	61.3	38.6	0.0	18.9
LnGrp LOS	D		C	C		C	C		F	D		B
Approach Vol, veh/h		433			100			1172			865	
Approach Delay, s/veh		43.9			21.0			60.3			19.3	
Approach LOS		D			C			E			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	23.0	47.0	23.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	17.0	40.5	17.0
Max Q Clear Time (g_c+I1), s	43.5	20.5	29.2	5.0
Green Ext Time (p_c), s	0.0	0.0	9.8	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	42.2
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	255	1	22	187	5	0	5	39	44	5	26
Future Volume (vph)	14	255	1	22	187	5	0	5	39	44	5	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	2%	0%	5%	1%	0%	0%	0%	3%	5%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	291	0	25	219	0	0	50	0	0	86	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	255	1	22	187	5	0	5	39	44	5	26
Future Vol, veh/h	14	255	1	22	187	5	0	5	39	44	5	26
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	17	2	0	5	1	0	0	0	3	5	0	4
Mvmt Flow	16	290	1	25	213	6	0	6	44	50	6	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	291	0	0	588	591	290	591	589	216
Stage 1	-	-	-	-	-	-	322	322	-	266	266	-
Stage 2	-	-	-	-	-	-	265	269	-	324	323	-
Critical Hdwy	4.5	-	-	4.4	-	-	7.3	6.7	6.33	6.6	5.9	5.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	5.55	4.9	-
Follow-up Hdwy	3.2	-	-	3	-	-	3	4	3.1	3	4	3.1
Pot Cap-1 Maneuver	941	-	-	947	-	-	461	408	788	514	467	891
Stage 1	-	-	-	-	-	-	779	643	-	887	724	-
Stage 2	-	-	-	-	-	-	841	680	-	831	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	940	-	-	947	-	-	421	391	788	458	447	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	421	391	-	458	447	-
Stage 1	-	-	-	-	-	-	765	632	-	863	704	-
Stage 2	-	-	-	-	-	-	785	661	-	764	679	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.46	0.92	10.49	12.75
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	706	940	-	-	947	-	-	549
HCM Lane V/C Ratio	0.071	0.017	-	-	0.026	-	-	0.155
HCM Ctrl Dly (s/v)	10.5	8.9	-	-	8.9	-	-	12.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	38	10	18	55	17	23
Future Volume (vph)	38	10	18	55	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	2119			1252	852	
Travel Time (s)	36.1			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	19%	7%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	98	54	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	38	10	18	55	17	23
Future Vol, veh/h	38	10	18	55	17	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	16	0	19	7	0	5
Mvmt Flow	51	14	24	74	23	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	181	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.5	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	3.2	-	3	3.1
Pot Cap-1 Maneuver	-	-	1068	-	937	1076
Stage 1	-	-	-	-	1127	-
Stage 2	-	-	-	-	1050	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1068	-	915	1076
Mov Cap-2 Maneuver	-	-	-	-	915	-
Stage 1	-	-	-	-	1127	-
Stage 2	-	-	-	-	1025	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.08	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1001	-	-	444	-
HCM Lane V/C Ratio	0.054	-	-	0.023	-
HCM Ctrl Dly (s/v)	8.8	-	-	8.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	26	41	55	21	7	8
Future Volume (vph)	26	41	55	21	7	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		2%	-2%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1109	2119		324	
Travel Time (s)		18.9	36.1		8.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	25%	15%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	84	0	17	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	41	55	21	7	8
Future Vol, veh/h	26	41	55	21	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	2	-2	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	25	15	2	2	2
Mvmt Flow	29	46	61	23	8	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	84	0	-	0	176	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1123	-	-	-	942	1056
Stage 1	-	-	-	-	1108	-
Stage 2	-	-	-	-	1072	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1123	-	-	-	918	1056
Mov Cap-2 Maneuver	-	-	-	-	918	-
Stage 1	-	-	-	-	1079	-
Stage 2	-	-	-	-	1072	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.22	0	8.71
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	699	-	-	-	987
HCM Lane V/C Ratio	0.026	-	-	-	0.017
HCM Ctrl Dly (s/v)	8.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	49	0	5	58	0	0	72	18	0	34	7
Future Volume (vph)	24	49	0	5	58	0	0	72	18	0	34	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			-1%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1309			1109			278			356	
Travel Time (s)		22.3			18.9			7.6			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	25%	0%	2%	15%	0%	0%	33%	2%	0%	56%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	70	0	0	100	0	0	46	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	49	0	5	58	0	0	72	18	0	34	7
Future Vol, veh/h	24	49	0	5	58	0	0	72	18	0	34	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	25	0	2	15	0	0	33	2	0	56	2
Mvmt Flow	27	54	0	6	64	0	0	80	20	0	38	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	54	0	0	202	183	54	223	183	64
Stage 1	-	-	-	-	-	-	108	108	-	76	76	-
Stage 2	-	-	-	-	-	-	94	76	-	148	108	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.1	6.83	6.22	7.1	7.06	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.83	-	6.1	6.06	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.83	-	6.1	6.06	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.297	3.1	3	4.504	3.1
Pot Cap-1 Maneuver	1141	-	-	1150	-	-	875	659	1082	847	624	1068
Stage 1	-	-	-	-	-	-	1045	750	-	1089	738	-
Stage 2	-	-	-	-	-	-	1063	775	-	993	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1141	-	-	1150	-	-	792	640	1082	709	606	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	792	640	-	709	606	-
Stage 1	-	-	-	-	-	-	1020	732	-	1084	734	-
Stage 2	-	-	-	-	-	-	996	771	-	847	695	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.71	0.65	11.03	10.91
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	697	592	-	-	143	-	-	655
HCM Lane V/C Ratio	0.144	0.023	-	-	0.005	-	-	0.07
HCM Ctrl Dly (s/v)	11	8.2	0	-	8.1	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.2

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	169	217	0	0	0
Future Volume (vph)	0	169	217	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	184		118			92
Travel Time (s)	5.0		2.0			1.6
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	17%	17%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	182	233	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	169	217	0	0	0
Future Vol, veh/h	0	169	217	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	17	17	0	0	0
Mvmt Flow	0	182	233	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	233	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1088	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1088	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	8.97	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1088
HCM Lane V/C Ratio	-	0.167
HCM Ctrl Dly (s/v)	-	9
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	44	29	323	64	25	197
Future Volume (vph)	44	29	323	64	25	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-1%		1%			-1%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	40		40			35
Link Distance (ft)	1263		1057			908
Travel Time (s)	21.5		18.0			17.7
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	13%	5%	2%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	412	0	0	237
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	44	29	323	64	25	197
Future Vol, veh/h	44	29	323	64	25	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-1	-	1	-	-	-1
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	20	13	5	2	0	3
Mvmt Flow	47	31	344	68	27	210

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	640	378	0	0	412	0
Stage 1	378	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.4	6.23	-	-	4.3	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.2	3.2	-	-	3	-
Pot Cap-1 Maneuver	473	689	-	-	867	-
Stage 1	752	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	456	689	-	-	867	-
Mov Cap-2 Maneuver	456	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.01	0	1.05
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	527	203	-
HCM Lane V/C Ratio	-	-	0.147	0.031	-
HCM Ctrl Dly (s/v)	-	-	13	9.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	260	67	293	60	5	236
Future Volume (vph)	260	67	293	60	5	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	11	11	11	11
Grade (%)	-5%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	30		40			40
Link Distance (ft)	1042		715			1057
Travel Time (s)	23.7		12.2			18.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	2%	11%	46%	25%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	471	0	0	322
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	13.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	260	67	293	60	5	236
Future Vol, veh/h	260	67	293	60	5	236
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	2	-	-	-2
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	10	2	11	46	25	7
Mvmt Flow	347	89	391	80	7	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	759	431	0	0	471	0
Stage 1	431	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	5.5	5.72	-	-	4.6	-
Critical Hdwy Stg 1	4.5	-	-	-	-	-
Critical Hdwy Stg 2	4.5	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	-	-	3.2	-
Pot Cap-1 Maneuver	496	701	-	-	754	-
Stage 1	811	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	491	701	-	-	754	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	37.54	0	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	523	37	-
HCM Lane V/C Ratio	-	-	0.834	0.009	-
HCM Ctrl Dly (s/v)	-	-	37.5	9.8	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	8.5	0	-

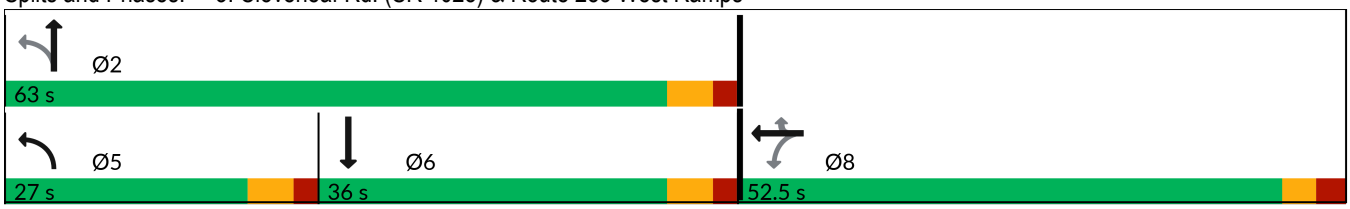
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	686	0	190	352	243	0	0	316	92
Future Volume (vph)	0	0	0	686	0	190	352	243	0	0	316	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	11	11	10	11	11	11	11	11	11
Grade (%)		0%			-2%			2%			-2%	
Storage Length (ft)	0		0	0		400	225		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		835			831			554			715	
Travel Time (s)		22.8			22.7			9.4			12.2	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	11%	6%	9%	0%	0%	6%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	715	198	367	253	0	0	425	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Detector Phase				8	8	8	5	2			6	
Switch Phase												
Minimum Initial (s)				3.0	3.0	3.0	7.0	12.0			12.0	
Minimum Split (s)				8.5	8.5	8.5	13.0	18.0			18.0	
Total Split (s)				52.5	52.5	52.5	27.0	63.0			36.0	
Total Split (%)				45.5%	45.5%	45.5%	23.4%	54.5%			31.2%	
Maximum Green (s)				47.0	47.0	47.0	21.0	57.0			30.0	
Yellow Time (s)				3.0	3.0	3.0	4.0	4.0			4.0	
All-Red Time (s)				2.5	2.5	2.5	2.0	2.0			2.0	
Lost Time Adjust (s)					-1.0	-1.0	-1.0	-1.0			-1.0	
Total Lost Time (s)					4.5	4.5	5.0	5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	6.0			6.0	
Minimum Gap (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Time Before Reduce (s)				0.0	0.0	0.0	0.0	13.0			13.0	
Time To Reduce (s)				0.0	0.0	0.0	0.0	12.0			12.0	
Recall Mode				None	None	None	None	Min			Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio					1.06	0.30	1.01	0.32			0.98	
Control Delay (s/veh)					86.1	4.2	78.3	18.4			80.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay					0.0	0.0	0.0	0.0			0.0	
Total Delay (s/veh)					86.1	4.2	78.3	18.4			80.4	
Queue Length 50th (ft)					~586	0	207	106			307	
Queue Length 95th (ft)					#818	44	#376	159			#518	
Internal Link Dist (ft)		755			751			474			635	
Turn Bay Length (ft)						400	225					
Base Capacity (vph)					673	655	365	793			433	
Starvation Cap Reductn					0	0	0	0			0	
Spillback Cap Reductn					0	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					1.06	0.30	1.01	0.32			0.98	

Intersection Summary

Area Type: Other
Cycle Length: 115.5
Actuated Cycle Length: 115.5
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	686	0	190	352	243	0	0	316	92
Future Volume (veh/h)	0	0	0	686	0	190	352	243	0	0	316	92
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1832	1875	1718	1693	1651	0	0	1789	1675
Adj Flow Rate, veh/h				715	0	0	367	253	0	0	329	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				3	0	11	6	9	0	0	6	14
Cap, veh/h				764	0		448	796	0	0	429	
Arrive On Green				0.42	0.00	0.00	0.19	0.48	0.00	0.00	0.24	0.00
Sat Flow, veh/h				1785	0	1456	1613	1651	0	0	1789	0
Grp Volume(v), veh/h				715	0	0	367	253	0	0	329	0
Grp Sat Flow(s),veh/h/ln				1785	0	1456	1613	1651	0	0	1789	0
Q Serve(g_s), s				40.4	0.0	0.0	16.9	9.9	0.0	0.0	18.1	0.0
Cycle Q Clear(g_c), s				40.4	0.0	0.0	16.9	9.9	0.0	0.0	18.1	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				764	0		448	796	0	0	429	
V/C Ratio(X)				0.94	0.00		0.82	0.32	0.00	0.00	0.77	
Avail Cap(c_a), veh/h				811	0		469	906	0	0	525	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				29.3	0.0	0.0	23.1	16.7	0.0	0.0	37.4	0.0
Incr Delay (d2), s/veh				17.4	0.0	0.0	10.7	0.8	0.0	0.0	10.6	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				28.2	0.0	0.0	11.7	6.7	0.0	0.0	13.8	0.0
Unsig. Movement Delay, s/veh						9.10						
LnGrp Delay(d), s/veh				46.7	0.0	9.1	33.8	17.6	0.0	0.0	48.0	0.0
LnGrp LOS				D		A	C	B			D	
Approach Vol, veh/h					854			620			329	
Approach Delay, s/veh					40.6			27.2			48.0	
Approach LOS					D			C			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	55.9	25.6	30.3	49.7
Change Period (Y+Rc), s	6.0	6.0	6.0	5.5
Max Green Setting (Gmax), s	57.0	21.0	30.0	47.0
Max Q Clear Time (g_c+I1), s	12.4	19.4	20.6	42.4
Green Ext Time (p_c), s	7.0	0.2	3.7	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	37.3
HCM 7th LOS	D

Notes

Unsignalized Delay for [WBR] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	0	605	0	0	0	0	497	501	156	847	0
Future Volume (vph)	99	0	605	0	0	0	0	497	501	156	847	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	100		0
Storage Lanes	1		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	1%	0%	0%	0%	0%	6%	4%	9%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	0	617	0	0	0	0	1018	0	159	864	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	80.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	0	605	0	0	0	0	497	501	156	847	0
Future Vol, veh/h	99	0	605	0	0	0	0	497	501	156	847	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	Yield	-	-	None
Storage Length	0	-	350	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	-1	-	-	-2	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	16	0	1	0	0	0	0	6	4	9	3	0
Mvmt Flow	101	0	617	0	0	0	0	507	511	159	864	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1690	-	864	-	0	0	507	0	0
Stage 1	1183	-	-	-	-	-	-	-	-
Stage 2	507	-	-	-	-	-	-	-	-
Critical Hdwy	6.36	-	6.11	-	-	-	4.4	-	-
Critical Hdwy Stg 1	5.36	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.36	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	3.1	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	111	0	~ 380	0	-	-	771	-	0
Stage 1	318	0	-	0	-	-	-	-	0
Stage 2	674	0	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 88	0	~ 380	-	-	-	771	-	-
Mov Cap-2 Maneuver	~ 88	0	-	-	-	-	-	-	-
Stage 1	318	0	-	-	-	-	-	-	-
Stage 2	535	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	$ 305.77	0	1.69
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	88	380	771	-
HCM Lane V/C Ratio	-	-	1.143	1.626	0.206	-
HCM Ctrl Dly (s/v)	-	-	226.2	$ 318.8	10.9	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	7	36.1	0.8	-

Notes

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

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	14	5	981	1451	1
Future Volume (vph)	17	14	5	981	1451	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	0%			-2%	1%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Link Speed (mph)	25			40	40	
Link Distance (ft)	507			2157	313	
Travel Time (s)	13.8			36.8	5.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	0%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	0	1038	1528	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	14	5	981	1451	1
Future Vol, veh/h	17	14	5	981	1451	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-2	1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	13	0	0	4	3	0
Mvmt Flow	18	15	5	1033	1527	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2571	1528	1528	0	-	0
Stage 1	1528	-	-	-	-	-
Stage 2	1043	-	-	-	-	-
Critical Hdwy	6.53	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.1	3.1	3	-	-	-
Pot Cap-1 Maneuver	27	150	342	-	-	-
Stage 1	200	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	26	150	342	-	-	-
Mov Cap-2 Maneuver	26	-	-	-	-	-
Stage 1	193	-	-	-	-	-
Stage 2	354	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	222.22	0.08	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	42	-	-
HCM Lane V/C Ratio	0.015	-	0.78	-	-
HCM Ctrl Dly (s/v)	15.7	0	222.2	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0	-	3	-	-

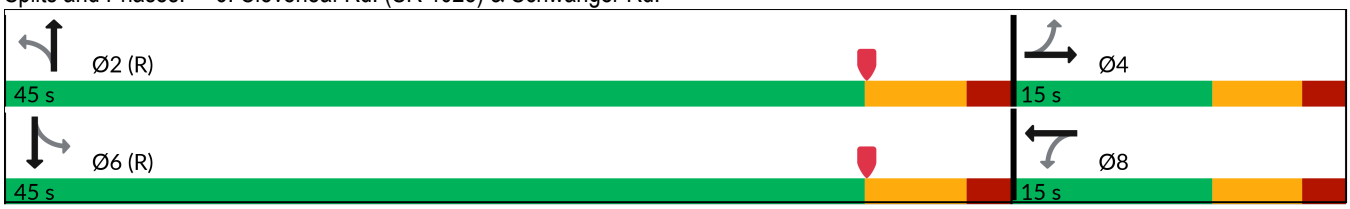
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	104	0	31	83	0	55	794	0	72	1428	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	15.0	15.0		15.0	15.0		45.0	45.0		45.0	45.0	
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%		75.0%	75.0%	
Maximum Green (s)	9.0	9.0		9.0	9.0		38.5	38.5		38.5	38.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.09	0.31		0.16	0.26		0.49	0.72		0.25	1.29	
Control Delay (s/veh)	120.3	14.7		23.9	17.7		24.7	11.3		6.8	152.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	120.3	14.7		23.9	17.7		24.7	11.3		6.8	152.8	
Queue Length 50th (ft)	~91	15		10	16		8	151		9	~681	
Queue Length 95th (ft)	#206	52		31	50		#60	273		26	#915	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	199	339		190	314		113	1105		292	1109	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.09	0.31		0.16	0.26		0.49	0.72		0.25	1.29	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	217	47	44	31	52	16	55	775	18	72	1080	332
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	318	164	153	282	223	68	123	1179	27	403	914	281
Arrive On Green	0.17	0.17	0.15	0.17	0.17	0.15	0.66	0.66	0.64	0.66	0.66	0.64
Sat Flow, veh/h	1406	982	919	1221	1335	411	389	1792	42	697	1388	427
Grp Volume(v), veh/h	217	0	91	31	0	68	55	0	793	72	0	1412
Grp Sat Flow(s),veh/h/ln	1406	0	1900	1221	0	1746	389	0	1833	697	0	1815
Q Serve(g_s), s	8.5	0.0	2.5	1.4	0.0	2.0	0.5	0.0	15.6	4.1	0.0	39.5
Cycle Q Clear(g_c), s	10.0	0.0	2.5	3.4	0.0	2.0	39.5	0.0	15.6	19.2	0.0	39.5
Prop In Lane	1.00		0.48	1.00		0.24	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	318	0	317	282	0	291	123	0	1207	403	0	1195
V/C Ratio(X)	0.68	0.00	0.29	0.11	0.00	0.23	0.45	0.00	0.66	0.18	0.00	1.18
Avail Cap(c_a), veh/h	318	0	317	282	0	291	123	0	1207	403	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	22.1	23.1	0.0	21.8	30.0	0.0	6.2	11.8	0.0	10.4
Incr Delay (d2), s/veh	5.8	0.0	0.5	0.2	0.0	0.4	11.3	0.0	2.8	1.0	0.0	90.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.1	0.0	1.9	0.7	0.0	1.4	2.0	0.0	7.6	1.1	0.0	55.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.0	0.0	22.6	23.3	0.0	22.2	41.2	0.0	9.0	12.8	0.0	100.9
LnGrp LOS	C		C	C		C	D		A	B		F
Approach Vol, veh/h		308			99			848			1484	
Approach Delay, s/veh		29.2			22.5			11.1			96.6	
Approach LOS		C			C			B			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	15.0	45.0	15.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	38.5	9.0	38.5	9.0
Max Q Clear Time (g_c+I1), s	17.6	12.5	41.5	5.9
Green Ext Time (p_c), s	16.1	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	59.9
HCM 7th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	299	5	91	250	47	1	9	38	20	9	18
Future Volume (vph)	26	299	5	91	250	47	1	9	38	20	9	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	14	14	14	16	16	16
Grade (%)		0%			-1%			1%			-3%	
Storage Length (ft)	175		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		885			2071			354			527	
Travel Time (s)		17.2			40.3			6.9			10.3	
Confl. Peds. (#/hr)	1					1			1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	1%	1%	2%	0%	13%	3%	6%	13%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	338	0	101	330	0	0	53	0	0	52	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	299	5	91	250	47	1	9	38	20	9	18
Future Vol, veh/h	26	299	5	91	250	47	1	9	38	20	9	18
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	1	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	1	1	2	0	13	3	6	13	6
Mvmt Flow	29	332	6	101	278	52	1	10	42	22	10	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	331	0	0	338	0	0	878	926	336	903	903	305
Stage 1	-	-	-	-	-	-	393	393	-	507	507	-
Stage 2	-	-	-	-	-	-	485	533	-	396	396	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.3	6.83	6.33	6.56	6.03	5.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.83	-	5.56	5.03	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.117	3.1	3.1	4.117	3.2
Pot Cap-1 Maneuver	925	-	-	920	-	-	285	245	741	322	309	775
Stage 1	-	-	-	-	-	-	708	575	-	655	567	-
Stage 2	-	-	-	-	-	-	624	492	-	743	626	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	924	-	-	920	-	-	232	211	740	251	266	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	211	-	251	266	-
Stage 1	-	-	-	-	-	-	685	557	-	582	504	-
Stage 2	-	-	-	-	-	-	531	438	-	666	606	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.71	2.2	13.28	17.35
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	488	924	-	-	920	-	-	344
HCM Lane V/C Ratio	0.109	0.031	-	-	0.11	-	-	0.152
HCM Ctrl Dly (s/v)	13.3	9	-	-	9.4	-	-	17.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.4	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	86	26	30	37	10	26
Future Volume (vph)	86	26	30	37	10	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10
Grade (%)	-2%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Link Speed (mph)	40			40	35	
Link Distance (ft)	2125			1252	852	
Travel Time (s)	36.2			21.3	16.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	0%	15%	3%	25%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	128	0	0	76	41	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	26	30	37	10	26
Future Vol, veh/h	86	26	30	37	10	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	0	15	3	25	4
Mvmt Flow	98	30	34	42	11	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	127	0	223	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.5	-	6.65	6.24
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	3.1	-	3.2	3.1
Pot Cap-1 Maneuver	-	-	1046	-	822	1003
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1046	-	794	1003
Mov Cap-2 Maneuver	-	-	-	-	794	-
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	960	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.83	9.03
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	935	-	-	806	-
HCM Lane V/C Ratio	0.044	-	-	0.033	-
HCM Ctrl Dly (s/v)	9	-	-	8.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	86	39	7	26	32
Future Volume (vph)	9	86	39	7	26	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		2%	-2%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Link Speed (mph)		40	40		25	
Link Distance (ft)		1141	2125		293	
Travel Time (s)		19.4	36.2		8.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	8%	15%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	106	51	0	65	0
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	86	39	7	26	32
Future Vol, veh/h	9	86	39	7	26	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	2	-2	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	8	15	2	2	2
Mvmt Flow	10	96	43	8	29	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	51	0	-	0	163	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	4.3	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	3	-	-	-	3	3.1
Pot Cap-1 Maneuver	1153	-	-	-	960	1092
Stage 1	-	-	-	-	1140	-
Stage 2	-	-	-	-	1058	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1153	-	-	-	951	1092
Mov Cap-2 Maneuver	-	-	-	-	951	-
Stage 1	-	-	-	-	1129	-
Stage 2	-	-	-	-	1058	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.77	0	8.75
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	171	-	-	-	1024
HCM Lane V/C Ratio	0.009	-	-	-	0.063
HCM Ctrl Dly (s/v)	8.1	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	89	0	22	49	0	0	39	6	0	79	29
Future Volume (vph)	8	89	0	22	49	0	0	39	6	0	79	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			-1%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1263			1141			424			360	
Travel Time (s)		21.5			19.4			11.6			9.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	8%	0%	2%	15%	0%	0%	59%	2%	0%	27%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	78	0	0	50	0	0	120	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	89	0	22	49	0	0	39	6	0	79	29
Future Vol, veh/h	8	89	0	22	49	0	0	39	6	0	79	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-1	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	8	0	2	15	0	0	59	2	0	27	2
Mvmt Flow	9	99	0	24	54	0	0	43	7	0	88	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	99	0	0	264	220	99	242	220	54
Stage 1	-	-	-	-	-	-	117	117	-	103	103	-
Stage 2	-	-	-	-	-	-	147	103	-	138	117	-
Critical Hdwy	4.3	-	-	4.3	-	-	7.1	7.09	6.22	7.1	6.77	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.09	-	6.1	5.77	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.09	-	6.1	5.77	-
Follow-up Hdwy	3	-	-	3	-	-	3	4.531	3.1	3	4.243	3.1
Pot Cap-1 Maneuver	1150	-	-	1111	-	-	794	590	1021	823	637	1082
Stage 1	-	-	-	-	-	-	1033	701	-	1051	764	-
Stage 2	-	-	-	-	-	-	994	711	-	1005	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1150	-	-	1111	-	-	644	572	1021	734	617	1082
Mov Cap-2 Maneuver	-	-	-	-	-	-	644	572	-	734	617	-
Stage 1	-	-	-	-	-	-	1025	696	-	1027	746	-
Stage 2	-	-	-	-	-	-	831	695	-	929	747	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.67	2.58	11.46	11.23
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	607	148	-	-	558	-	-	698
HCM Lane V/C Ratio	0.082	0.008	-	-	0.022	-	-	0.172
HCM Ctrl Dly (s/v)	11.5	8.2	0	-	8.3	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	190	243	0	0	0
Future Volume (vph)	0	190	243	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-2%		2%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	278		122			129
Travel Time (s)	7.6		2.1			2.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	9%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	198	253	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	243	0	0	0
Future Vol, veh/h	0	190	243	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	11	9	0	0	0
Mvmt Flow	0	198	253	0	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	-	253	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	5	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	2.6	-	-
Pot Cap-1 Maneuver	0	1066	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	1066	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Ctrl Dly, s/v	9.15	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBT	WBLn1
Capacity (veh/h)	-	1066
HCM Lane V/C Ratio	-	0.186
HCM Ctrl Dly (s/v)	-	9.1
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0.7

2035 Projected (Build) Conditions W IMP

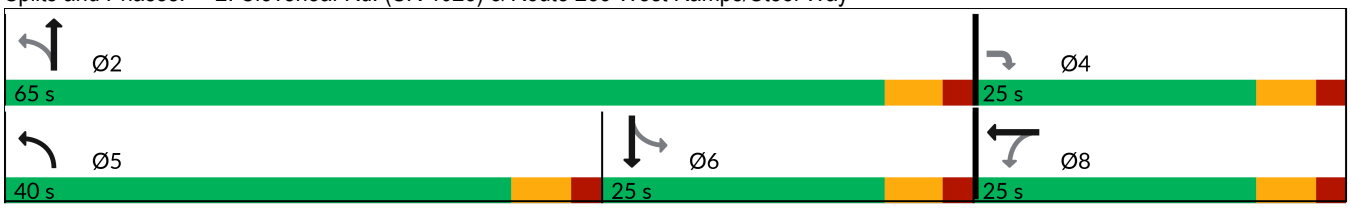
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	394	46	16	1	653	190	176	18	237	84
Future Volume (vph)	0	0	394	46	16	1	653	190	176	18	237	84
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	14	14	12	11	11	11	11	12
Grade (%)		0%			-5%			2%			-2%	
Storage Length (ft)	0		0	0		0	700		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	1455	0	1322	0	1628	1359	0	1670	1521	0
Flt Permitted					0.965		0.238			0.530		
Satd. Flow (perm)	0	0	1455	0	1322	0	408	1359	0	931	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			787		1			111			18	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		523			1042			715			1084	
Travel Time (s)		14.3			23.7			12.2			18.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	7%	44%	44%	0%	4%	21%	14%	0%	11%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	424	0	67	0	702	393	0	19	345	0
Turn Type			Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases			4	8			2			6		
Detector Phase			4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)			5.0	5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)			11.0	11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)			25.0	25.0	25.0		40.0	65.0		25.0	25.0	
Total Split (%)			27.8%	27.8%	27.8%		44.4%	72.2%		27.8%	27.8%	
Maximum Green (s)			19.0	19.0	19.0		34.0	59.0		19.0	19.0	
Yellow Time (s)			4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)			2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0		-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)			6.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode			None	None	None		None	Min		Min	Min	
Walk Time (s)												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			9.3		10.3		60.1	60.1		20.0	20.0	
Actuated g/C Ratio			0.12		0.13		0.75	0.75		0.25	0.25	
v/c Ratio			0.49		0.39		0.84	0.38		0.08	0.88	
Control Delay (s/veh)			2.0		38.5		23.5	3.9		25.7	54.0	
Queue Delay			0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)			2.0		38.5		23.5	3.9		25.7	54.0	
LOS			A		D		C	A		C	D	
Approach Delay (s/veh)		2.0			38.5			16.5			52.5	
Approach LOS		A			D			B			D	
Queue Length 50th (ft)			0		31		213	35		7	159	
Queue Length 95th (ft)			0		69		#481	86		26	#335	
Internal Link Dist (ft)		443			962			635			1004	
Turn Bay Length (ft)							700			100		
Base Capacity (vph)			945		330		836	1043		231	392	
Starvation Cap Reductn			0		0		0	0		0	0	
Spillback Cap Reductn			0		0		0	0		0	0	
Storage Cap Reductn			0		0		0	0		0	0	
Reduced v/c Ratio			0.45		0.20		0.84	0.38		0.08	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 80.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay (s/veh): 20.8 Intersection LOS: C
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps/Steel Way



HCM 7th Edition methodology does not support Non-NEMA phasing.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	169	872	0	0	560
Future Volume (vph)	0	169	872	0	0	560
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	10	11	11	11	11
Grade (%)	-2%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	831		554			715
Travel Time (s)	22.7		9.4			12.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	17%	7%	0%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	182	938	0	0	602
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	169	872	0	0	560
Future Vol, veh/h	0	169	872	0	0	560
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	-2
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	17	7	0	0	11
Mvmt Flow	0	182	938	0	0	602

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	938	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	2.6	-	-	-	-
Pot Cap-1 Maneuver	0	518	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	518	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.65	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	518	-
HCM Lane V/C Ratio	-	0.351	-
HCM Ctrl Dly (s/v)	-	15.7	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1.6	-

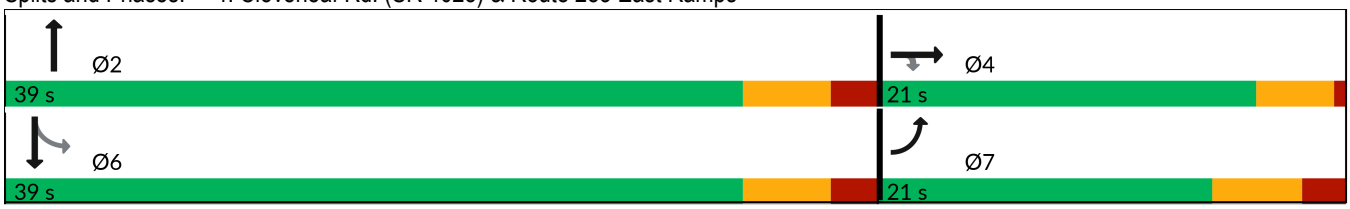
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	0	338	0	0	0	0	801	672	169	490	0
Future Volume (vph)	71	0	338	0	0	0	0	801	672	169	490	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	200		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	26%	0%	7%	0%	0%	0%	0%	5%	3%	16%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	380	0	0	0	0	1655	0	190	551	0
Turn Type	Prot	NA	Perm					NA		Perm	NA	
Protected Phases	7	4						2			6	
Permitted Phases			4							6		
Detector Phase	7	4	4					2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0					10.0		10.0	10.0	
Minimum Split (s)	11.0	20.0	20.0					16.0		16.0	16.0	
Total Split (s)	21.0	21.0	21.0					39.0		39.0	39.0	
Total Split (%)	35.0%	35.0%	35.0%					65.0%		65.0%	65.0%	
Maximum Green (s)	15.0	17.0	17.0					33.0		33.0	33.0	
Yellow Time (s)	4.0	3.5	3.5					4.0		4.0	4.0	
All-Red Time (s)	2.0	0.5	0.5					2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	-1.0					-1.0		-1.0	-1.0	
Total Lost Time (s)		4.0	3.0					5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Recall Mode	None	None	None					Min		Min	Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.22	0.59					1.70		1.83	0.55	
Control Delay (s/veh)		18.3	8.5					337.1		427.1	9.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay (s/veh)		18.3	8.5					337.1		427.1	9.8	
Queue Length 50th (ft)		22	19					~920		~86	89	
Queue Length 95th (ft)		51	78					#1145		#110	110	
Internal Link Dist (ft)		826			679			233			474	
Turn Bay Length (ft)			350							200		
Base Capacity (vph)		361	690					974		104	1008	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.22	0.55					1.70		1.83	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 58.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Cloverleaf Rd. (SR 4025) & Route 283 East Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	0	338	0	0	0	0	801	672	169	490	0
Future Volume (veh/h)	71	0	338	0	0	0	0	801	672	169	490	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.04	1.04	1.04				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1526	1911	1807				0	1766	1795	1647	1789	0
Adj Flow Rate, veh/h	80	0	0				0	900	0	190	551	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	26	0	7				0	5	3	16	6	0
Cap, veh/h	124	0					0	1243		365	1259	0
Arrive On Green	0.09	0.00	0.00				0.00	0.70	0.00	0.70	0.70	0.00
Sat Flow, veh/h	1820	0	1532				0	1766	0	545	1789	0
Grp Volume(v), veh/h	80	0	0				0	900	0	190	551	0
Grp Sat Flow(s),veh/h/ln	1820	0	1532				0	1766	0	545	1789	0
Q Serve(g_s), s	2.1	0.0	0.0				0.0	14.8	0.0	15.6	6.4	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0				0.0	14.8	0.0	30.4	6.4	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	124	0					0	1243		365	1259	0
V/C Ratio(X)	0.65	0.00					0.00	0.72		0.52	0.44	0.00
Avail Cap(c_a), veh/h	566	0					0	1244		365	1260	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.4	0.0	0.0				0.0	4.3	0.0	13.5	3.1	0.0
Incr Delay (d2), s/veh	5.5	0.0	0.0				0.0	2.1	0.0	1.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.0				0.0	3.4	0.0	2.7	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.9	0.0	0.0				0.0	6.4	0.0	14.8	3.3	0.0
LnGrp LOS	C							A		B	A	
Approach Vol, veh/h		80						900			741	
Approach Delay, s/veh		26.9						6.4			6.3	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	39.0	9.3	39.0
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	33.0	15.0	33.0
Max Q Clear Time (g_c+I1), s	17.3	4.6	32.9
Green Ext Time (p_c), s	5.8	0.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.3
HCM 7th LOS	A

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

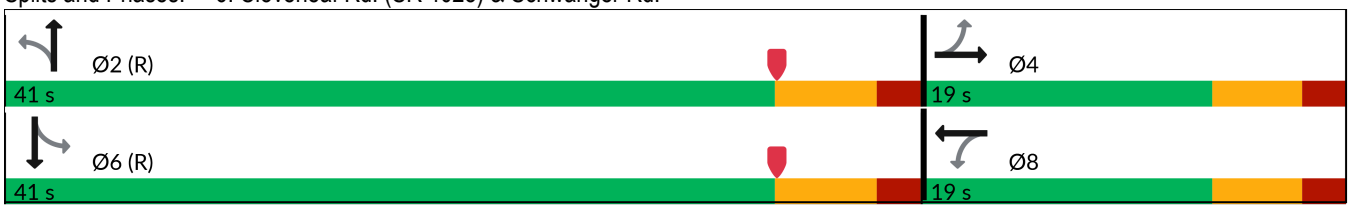
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	361	103	0	13	102	0	30	1142	0	19	864	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	19.0	19.0		19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%		31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	
Maximum Green (s)	13.0	13.0		13.0	13.0		34.5	34.5		34.5	34.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.32	0.24		0.05	0.24		0.17	1.18		0.17	0.91	
Control Delay (s/veh)	191.9	10.3		18.6	8.5		8.4	109.0		9.8	27.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	191.9	10.3		18.6	8.5		8.4	109.0		9.8	27.7	
Queue Length 50th (ft)	~174	10		4	5		4	~516		3	233	
Queue Length 95th (ft)	#316	43		15	37		17	#737		13	#498	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	274	435		266	429		178	968		114	946	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.32	0.24		0.05	0.24		0.17	1.18		0.17	0.91	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	361	35	37	13	18	69	30	1121	21	19	686	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	392	214	227	382	77	295	260	1049	20	124	832	194
Arrive On Green	0.23	0.23	0.22	0.23	0.23	0.22	0.59	0.59	0.57	0.59	0.59	0.57
Sat Flow, veh/h	1382	919	972	1243	329	1263	665	1773	33	513	1406	328
Grp Volume(v), veh/h	361	0	72	13	0	87	30	0	1142	19	0	846
Grp Sat Flow(s),veh/h/ln	1382	0	1891	1243	0	1592	665	0	1806	513	0	1734
Q Serve(g_s), s	11.8	0.0	1.8	0.5	0.0	2.7	2.2	0.0	35.5	0.5	0.0	23.4
Cycle Q Clear(g_c), s	14.0	0.0	1.8	1.8	0.0	2.7	25.2	0.0	35.5	35.5	0.0	23.4
Prop In Lane	1.00		0.51	1.00		0.79	1.00		0.02	1.00		0.19
Lane Grp Cap(c), veh/h	392	0	441	382	0	372	260	0	1069	124	0	1026
V/C Ratio(X)	0.92	0.00	0.16	0.03	0.00	0.23	0.12	0.00	1.07	0.15	0.00	0.82
Avail Cap(c_a), veh/h	392	0	441	382	0	372	260	0	1069	124	0	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	18.5	18.9	0.0	19.0	19.6	0.0	12.3	29.9	0.0	9.9
Incr Delay (d2), s/veh	26.8	0.0	0.2	0.0	0.0	0.3	0.9	0.0	47.8	2.6	0.0	7.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.4	0.0	1.4	0.2	0.0	1.7	0.7	0.0	32.8	0.6	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.4	0.0	18.7	18.9	0.0	19.3	20.5	0.0	60.1	32.5	0.0	17.4
LnGrp LOS	D		B	B		B	C		F	C		B
Approach Vol, veh/h		433			100			1172			865	
Approach Delay, s/veh		46.8			19.3			59.1			17.7	
Approach LOS		D			B			E			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.0	19.0	41.0	19.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	34.5	13.0	34.5	13.0
Max Q Clear Time (g_c+I1), s	37.5	16.5	25.4	4.7
Green Ext Time (p_c), s	0.0	0.0	8.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	41.5
HCM 7th LOS	D

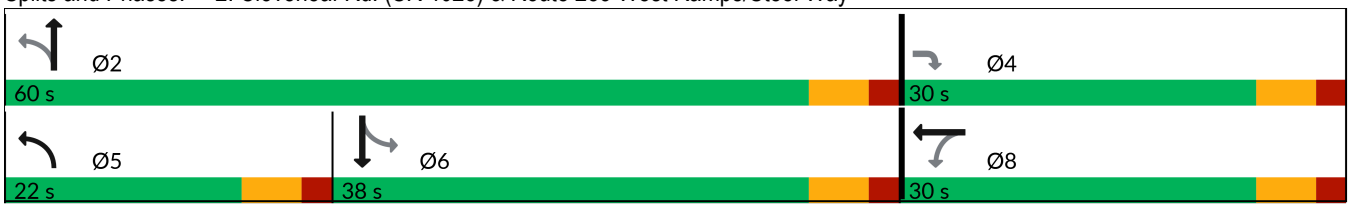
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	686	212	48	67	352	293	60	5	192	44
Future Volume (vph)	0	0	686	212	48	67	352	293	60	5	192	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	12	14	12	11	11	11	11	12
Grade (%)		0%			-5%			2%			-2%	
Storage Length (ft)	0		0	0		0	700		0	100		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	1512	0	1610	0	1597	1436	0	1336	1596	0
Flt Permitted					0.969		0.300			0.493		
Satd. Flow (perm)	0	0	1512	0	1610	0	504	1436	0	693	1596	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			660		14			21			15	
Link Speed (mph)		25			30			40			40	
Link Distance (ft)		424			1042			715			1057	
Travel Time (s)		11.6			23.7			12.2			18.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	10%	10%	0%	6%	11%	46%	25%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	915	0	436	0	469	471	0	7	315	0
Turn Type			Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases			4	8			2			6		
Detector Phase			4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)			5.0	5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)			11.0	11.0	11.0		11.0	16.0		16.0	16.0	
Total Split (s)			30.0	30.0	30.0		22.0	60.0		38.0	38.0	
Total Split (%)			33.3%	33.3%	33.3%		24.4%	66.7%		42.2%	42.2%	
Maximum Green (s)			24.0	24.0	24.0		16.0	54.0		32.0	32.0	
Yellow Time (s)			4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)			2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0		-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)			6.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)			3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)			0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode			None	None	None		None	Min		Min	Min	
Walk Time (s)												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)			24.1		25.1		42.8	42.8		20.7	20.7	
Actuated g/C Ratio			0.31		0.32		0.55	0.55		0.27	0.27	
v/c Ratio			0.99		0.83		0.91	0.59		0.04	0.73	
Control Delay (s/veh)			38.0		40.5		37.1	14.5		20.4	34.7	
Queue Delay			0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)			38.0		40.5		37.1	14.5		20.4	34.7	
LOS			D		D		D	B		C	C	
Approach Delay (s/veh)		38.0			40.5			25.8			34.4	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)			145		187		134	134		3	132	
Queue Length 95th (ft)			#264		#291		#173	160		10	167	
Internal Link Dist (ft)		344			962			635			977	
Turn Bay Length (ft)							700			100		
Base Capacity (vph)			923		528		516	1024		294	687	
Starvation Cap Reductn			0		0		0	0		0	0	
Spillback Cap Reductn			0		0		0	0		0	0	
Storage Cap Reductn			0		0		0	0		0	0	
Reduced v/c Ratio			0.99		0.83		0.91	0.46		0.02	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay (s/veh): 33.6 Intersection LOS: C
Intersection Capacity Utilization 91.0% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Cloverleaf Rd. (SR 4025) & Route 283 West Ramps/Steel Way



HCM 7th Edition methodology does not support Non-NEMA phasing.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	190	595	0	0	910
Future Volume (vph)	0	190	595	0	0	910
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	10	11	11	11	11
Grade (%)	-2%		2%			-2%
Storage Length (ft)	0	0		0	0	
Storage Lanes	0	1		0	0	
Taper Length (ft)	25				25	
Link Speed (mph)	25		40			40
Link Distance (ft)	831		554			715
Travel Time (s)	22.7		9.4			12.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	11%	7%	0%	0%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	198	620	0	0	948
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	595	0	0	910
Future Vol, veh/h	0	190	595	0	0	910
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-2	-	2	-	-	-2
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	11	7	0	0	5
Mvmt Flow	0	198	620	0	0	948

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	620	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	2.6	-	-	-	-
Pot Cap-1 Maneuver	0	726	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	726	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	726	-
HCM Lane V/C Ratio	-	0.273	-
HCM Ctrl Dly (s/v)	-	11.8	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	1.1	-

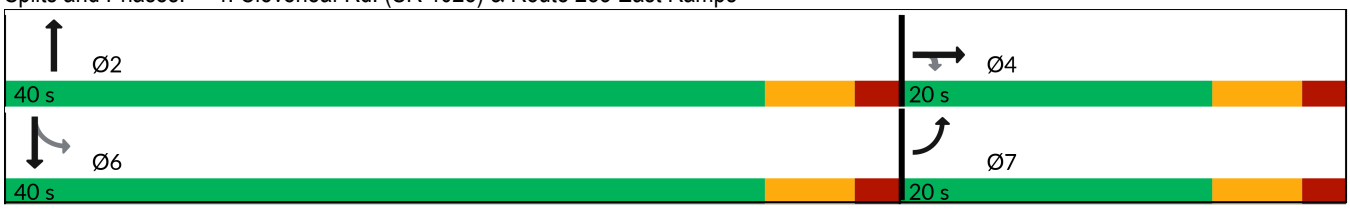
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	0	605	0	0	0	0	497	501	156	847	0
Future Volume (vph)	99	0	605	0	0	0	0	497	501	156	847	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	14	12	12	12	11	11	11	11	12	12
Grade (%)		-1%			0%			-1%			-2%	
Storage Length (ft)	0		350	0		0	0		0	200		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			40			40	
Link Distance (ft)		906			759			313			554	
Travel Time (s)		24.7			20.7			5.3			9.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	16%	0%	1%	0%	0%	0%	0%	6%	4%	9%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	617	0	0	0	0	1018	0	159	864	0
Turn Type	Prot	NA	Perm					NA		Perm	NA	
Protected Phases	7	4						2			6	
Permitted Phases			4							6		
Detector Phase	7	4	4					2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	4.0	4.0					10.0		10.0	10.0	
Minimum Split (s)	11.0	20.0	20.0					16.0		16.0	16.0	
Total Split (s)	20.0	20.0	20.0					40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%	33.3%					66.7%		66.7%	66.7%	
Maximum Green (s)	14.0	14.0	14.0					34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0	-1.0					-1.0		-1.0	-1.0	
Total Lost Time (s)		5.0	5.0					5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Recall Mode	None	None	None					Min		Min	Min	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.26	1.18					1.05		1.49	0.84	
Control Delay (s/veh)		20.4	120.8					59.5		282.2	19.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay (s/veh)		20.4	120.8					59.5		282.2	19.0	
Queue Length 50th (ft)		29	~231					~393		~73	196	
Queue Length 95th (ft)		64	#412					#606		#116	285	
Internal Link Dist (ft)		826			679			233			474	
Turn Bay Length (ft)			350							200		
Base Capacity (vph)		382	522					965		107	1029	
Starvation Cap Reductn		0	0					0		0	0	
Spillback Cap Reductn		0	0					0		0	0	
Storage Cap Reductn		0	0					0		0	0	
Reduced v/c Ratio		0.26	1.18					1.05		1.49	0.84	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Cloverleaf Rd. (SR 4025) & Route 283 East Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	0	605	0	0	0	0	497	501	156	847	0
Future Volume (veh/h)	99	0	605	0	0	0	0	497	501	156	847	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.04	1.04	1.04				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1674	1911	1896				0	1752	1780	1747	1832	0
Adj Flow Rate, veh/h	101	0	0				0	507	0	159	864	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	16	0	1				0	6	4	9	3	0
Cap, veh/h	206	0					0	1086		580	1135	0
Arrive On Green	0.11	0.00	0.00				0.00	0.62	0.00	0.62	0.62	0.00
Sat Flow, veh/h	1820	0	1607				0	1752	0	833	1832	0
Grp Volume(v), veh/h	101	0	0				0	507	0	159	864	0
Grp Sat Flow(s),veh/h/ln	1820	0	1607				0	1752	0	833	1832	0
Q Serve(g_s), s	2.0	0.0	0.0				0.0	5.8	0.0	4.7	12.7	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0				0.0	5.8	0.0	10.5	12.7	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	206	0					0	1086		580	1135	0
V/C Ratio(X)	0.49	0.00					0.00	0.47		0.27	0.76	0.00
Avail Cap(c_a), veh/h	728	0					0	1635		841	1710	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.6	0.0	0.0				0.0	3.8	0.0	6.6	5.1	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	0.3	0.0	0.3	1.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.0	0.0				0.0	1.0	0.0	0.9	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.4	0.0	0.0				0.0	4.1	0.0	6.9	6.2	0.0
LnGrp LOS	B							A		A	A	
Approach Vol, veh/h		101						507			1023	
Approach Delay, s/veh		17.4						4.1			6.3	
Approach LOS		B						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	28.2	9.3	28.2
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	14.0	34.0
Max Q Clear Time (g_c+I1), s	8.3	4.5	15.2
Green Ext Time (p_c), s	3.1	0.3	7.0

Intersection Summary	
HCM 7th Control Delay, s/veh	6.3
HCM 7th LOS	A

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

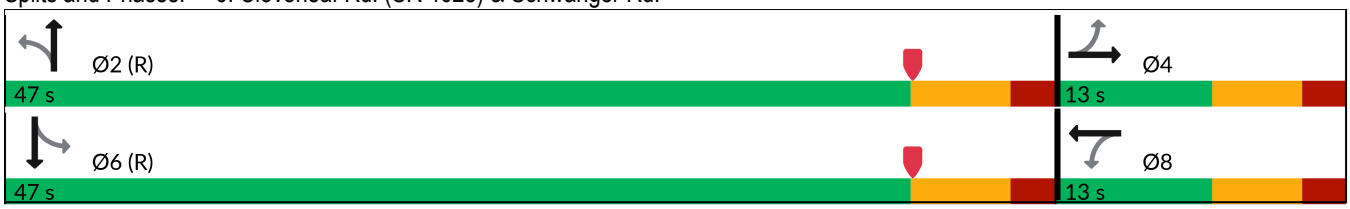
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	104	0	31	83	0	55	794	0	72	1428	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	13.0	13.0		13.0	13.0		47.0	47.0		47.0	47.0	
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%		78.3%	78.3%	
Maximum Green (s)	7.0	7.0		7.0	7.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.36	0.37		0.20	0.32		0.49	0.68		0.22	1.23	
Control Delay (s/veh)	226.7	17.1		26.9	20.3		23.8	9.2		5.3	125.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	226.7	17.1		26.9	20.3		23.8	9.2		5.3	125.1	
Queue Length 50th (ft)	~107	15		10	17		7	130		7	~658	
Queue Length 95th (ft)	#222	54		32	52		#60	235		21	#892	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	159	282		152	257		113	1161		327	1164	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.36	0.37		0.20	0.32		0.49	0.68		0.22	1.23	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	217	47	44	31	52	16	55	775	18	72	1080	332
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	270	131	123	239	178	55	123	1239	29	444	960	295
Arrive On Green	0.13	0.13	0.12	0.13	0.13	0.12	0.69	0.69	0.68	0.69	0.69	0.68
Sat Flow, veh/h	1406	982	919	1221	1335	411	389	1792	42	697	1388	427
Grp Volume(v), veh/h	217	0	91	31	0	68	55	0	793	72	0	1412
Grp Sat Flow(s),veh/h/ln	1406	0	1900	1221	0	1746	389	0	1833	697	0	1815
Q Serve(g_s), s	6.4	0.0	2.6	1.4	0.0	2.1	0.5	0.0	14.1	3.7	0.0	41.5
Cycle Q Clear(g_c), s	8.0	0.0	2.6	3.5	0.0	2.1	41.5	0.0	14.1	17.3	0.0	41.5
Prop In Lane	1.00		0.48	1.00		0.24	1.00		0.02	1.00		0.24
Lane Grp Cap(c), veh/h	270	0	253	239	0	233	123	0	1268	444	0	1256
V/C Ratio(X)	0.80	0.00	0.36	0.13	0.00	0.29	0.45	0.00	0.63	0.16	0.00	1.12
Avail Cap(c_a), veh/h	270	0	253	239	0	233	123	0	1268	444	0	1256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	23.9	25.1	0.0	23.6	30.0	0.0	5.0	9.6	0.0	9.4
Incr Delay (d2), s/veh	16.2	0.0	0.9	0.2	0.0	0.7	11.3	0.0	2.3	0.8	0.0	66.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	2.1	0.7	0.0	1.5	2.0	0.0	6.0	1.0	0.0	44.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	0.0	24.8	25.3	0.0	24.2	41.2	0.0	7.4	10.4	0.0	76.3
LnGrp LOS	D		C	C		C	D		A	B		F
Approach Vol, veh/h		308			99			848			1484	
Approach Delay, s/veh		38.3			24.6			9.6			73.1	
Approach LOS		D			C			A			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	13.0	47.0	13.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	7.0	40.5	7.0
Max Q Clear Time (g_c+I1), s	16.1	10.5	43.5	6.0
Green Ext Time (p_c), s	18.4	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	47.7
HCM 7th LOS	D

2035 Projected (Build) Conditions W IMP Supplemental

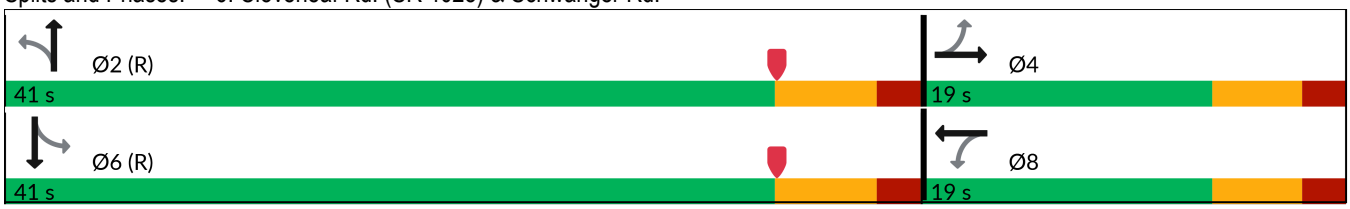
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (vph)	339	33	64	12	17	79	28	1054	20	18	645	167
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	7%	0%	0%	3%	0%	7%	43%	0%	11%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	361	103	0	13	102	0	30	1142	0	19	864	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	19.0	19.0		19.0	19.0		41.0	41.0		41.0	41.0	
Total Split (%)	31.7%	31.7%		31.7%	31.7%		68.3%	68.3%		68.3%	68.3%	
Maximum Green (s)	13.0	13.0		13.0	13.0		34.5	34.5		34.5	34.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.32	0.24		0.05	0.24		0.10	0.62		0.09	0.48	
Control Delay (s/veh)	191.9	10.3		18.6	8.5		6.3	9.7		6.7	7.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	191.9	10.3		18.6	8.5		6.3	9.7		6.7	7.2	
Queue Length 50th (ft)	~174	10		4	5		4	121		3	70	
Queue Length 95th (ft)	#316	43		15	37		14	175		11	107	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	274	435		266	429		304	1840		203	1806	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.32	0.24		0.05	0.24		0.10	0.62		0.09	0.48	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Future Volume (veh/h)	339	33	64	12	17	79	28	1054	20	18	645	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	1962	1750	1820	1776	1912	1812	1300	1949	1793	1906
Adj Flow Rate, veh/h	361	35	37	13	18	69	30	1121	21	19	686	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	7	0	0	3	0	7	43	0	11	3
Cap, veh/h	392	214	227	382	77	295	423	2046	38	323	1622	378
Arrive On Green	0.23	0.23	0.22	0.23	0.23	0.22	0.59	0.59	0.57	0.59	0.59	0.57
Sat Flow, veh/h	1382	919	972	1243	329	1263	665	3457	65	513	2742	639
Grp Volume(v), veh/h	361	0	72	13	0	87	30	558	584	19	426	420
Grp Sat Flow(s),veh/h/ln	1382	0	1891	1243	0	1592	665	1722	1801	513	1703	1678
Q Serve(g_s), s	11.8	0.0	1.8	0.5	0.0	2.7	1.5	11.8	11.8	1.4	8.2	8.3
Cycle Q Clear(g_c), s	14.0	0.0	1.8	1.8	0.0	2.7	9.7	11.8	11.8	13.1	8.2	8.3
Prop In Lane	1.00		0.51	1.00		0.79	1.00		0.04	1.00		0.38
Lane Grp Cap(c), veh/h	392	0	441	382	0	372	423	1019	1065	323	1008	993
V/C Ratio(X)	0.92	0.00	0.16	0.03	0.00	0.23	0.07	0.55	0.55	0.06	0.42	0.42
Avail Cap(c_a), veh/h	392	0	441	382	0	372	423	1019	1065	323	1008	993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	18.5	18.9	0.0	19.0	9.3	7.4	7.4	11.4	6.7	6.8
Incr Delay (d2), s/veh	26.8	0.0	0.2	0.0	0.0	0.3	0.3	2.1	2.0	0.3	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.4	0.0	1.4	0.2	0.0	1.7	0.4	6.2	6.5	0.3	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.4	0.0	18.7	18.9	0.0	19.3	9.6	9.5	9.4	11.7	8.0	8.1
LnGrp LOS	D		B	B		B	A	A	A	B	A	A
Approach Vol, veh/h		433			100			1172			865	
Approach Delay, s/veh		46.8			19.3			9.5			8.1	
Approach LOS		D			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.0	19.0	41.0	19.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	34.5	13.0	34.5	13.0
Max Q Clear Time (g_c+I1), s	14.3	16.5	10.7	4.7
Green Ext Time (p_c), s	18.0	0.0	17.5	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	15.7
HCM 7th LOS	B

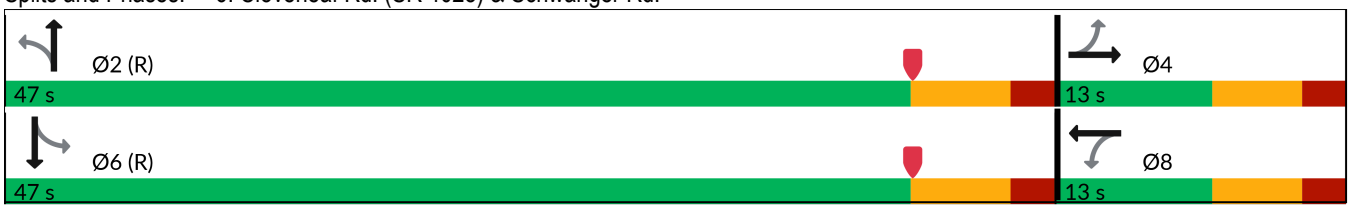
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (vph)	206	45	54	29	49	29	52	736	18	68	1026	331
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	13	13	10	13	13	10	11	11	10	11	11
Grade (%)		-5%			3%			-3%			-4%	
Storage Length (ft)	225		0	75		0	100		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			75			75			75		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		2071			2145			626			2157	
Travel Time (s)		40.3			41.8			10.7			36.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	5%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	104	0	31	83	0	55	794	0	72	1428	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.5	18.5		18.5	18.5	
Total Split (s)	13.0	13.0		13.0	13.0		47.0	47.0		47.0	47.0	
Total Split (%)	21.7%	21.7%		21.7%	21.7%		78.3%	78.3%		78.3%	78.3%	
Maximum Green (s)	7.0	7.0		7.0	7.0		40.5	40.5		40.5	40.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		14.0	14.0		14.0	14.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.36	0.37		0.20	0.32		0.31	0.36		0.18	0.64	
Control Delay (s/veh)	226.7	17.1		26.9	20.3		9.1	4.3		4.5	6.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	226.7	17.1		26.9	20.3		9.1	4.3		4.5	6.0	
Queue Length 50th (ft)	~107	15		10	17		6	47		7	98	
Queue Length 95th (ft)	#222	54		32	52		24	70		20	148	
Internal Link Dist (ft)		1991			2065			546			2077	
Turn Bay Length (ft)	225			75			100			75		
Base Capacity (vph)	159	282		152	257		179	2207		403	2227	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.36	0.37		0.20	0.32		0.31	0.36		0.18	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Cloverleaf Rd. (SR 4025) & Schwanger Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Future Volume (veh/h)	206	45	54	29	49	29	52	736	18	68	1026	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1972	2066	2066	1750	1820	1820	1912	1841	1912	1906	1892	1935
Adj Flow Rate, veh/h	217	47	44	31	52	16	55	775	18	72	1080	332
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	0	0	0	0	5	0	3	4	1
Cap, veh/h	270	131	123	239	178	55	310	2416	56	541	1878	571
Arrive On Green	0.13	0.13	0.12	0.13	0.13	0.12	0.69	0.69	0.68	0.69	0.69	0.68
Sat Flow, veh/h	1406	982	919	1221	1335	411	389	3494	81	697	2715	826
Grp Volume(v), veh/h	217	0	91	31	0	68	55	388	405	72	711	701
Grp Sat Flow(s),veh/h/ln	1406	0	1900	1221	0	1746	389	1749	1826	697	1798	1744
Q Serve(g_s), s	6.4	0.0	2.6	1.4	0.0	2.1	5.0	5.3	5.3	2.7	12.1	12.7
Cycle Q Clear(g_c), s	8.0	0.0	2.6	3.5	0.0	2.1	17.2	5.3	5.3	8.0	12.1	12.7
Prop In Lane	1.00		0.48	1.00		0.24	1.00		0.04	1.00		0.47
Lane Grp Cap(c), veh/h	270	0	253	239	0	233	310	1209	1263	541	1243	1206
V/C Ratio(X)	0.80	0.00	0.36	0.13	0.00	0.29	0.18	0.32	0.32	0.13	0.57	0.58
Avail Cap(c_a), veh/h	270	0	253	239	0	233	310	1209	1263	541	1243	1206
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	23.9	25.1	0.0	23.6	9.1	3.7	3.7	5.3	4.7	4.9
Incr Delay (d2), s/veh	16.2	0.0	0.9	0.2	0.0	0.7	1.2	0.7	0.7	0.5	1.9	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.5	0.0	2.1	0.7	0.0	1.5	0.8	2.0	2.1	0.6	5.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	0.0	24.8	25.3	0.0	24.2	10.4	4.4	4.3	5.8	6.6	7.0
LnGrp LOS	D		C	C		C	B	A	A	A	A	A
Approach Vol, veh/h		308			99			848			1484	
Approach Delay, s/veh		38.3			24.6			4.7			6.8	
Approach LOS		D			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	47.0	13.0	47.0	13.0
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0
Max Green Setting (Gmax), s	40.5	7.0	40.5	7.0
Max Q Clear Time (g_c+I1), s	7.8	10.5	14.7	6.0
Green Ext Time (p_c), s	20.7	0.0	24.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	10.3
HCM 7th LOS	B