

ALL-WAY STOP CONTROL ANALYSIS									
General Information					Site Information				
Analyst	R Garland				Intersection	Morningside Dr/27th Street			
Agency/Co.	Hermosa Beach City School Dist				Jurisdiction	City of Hermosa Beach			
Date Performed	12/13/2015				Analysis Year	2018 Existing			
Analysis Time Period	AM Peak Half Hour								
Project ID North Elementary School									
East/West Street: 27th Street/Gould Avenue					North/South Street: Morningside Drive				
Volume Adjustments and Site Characteristics									
Approach	Eastbound			Westbound					
Movement	L	T	R	L	T	R			
Volume (veh/h)	10	125	5	5	100	20			
%Thrus Left Lane									
Approach	Northbound			Southbound					
Movement	L	T	R	L	T	R			
Volume (veh/h)	5	10	10	30	5	5			
%Thrus Left Lane									
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LTR		LTR		
PHF	0.50		0.50		0.50		0.50		
Flow Rate (veh/h)	280		250		50		80		
% Heavy Vehicles	0		0		0		0		
No. Lanes	1		1		1		1		
Geometry Group	1		1		1		1		
Duration, T	0.25								
Saturation Headway Adjustment Worksheet									
Prop. Left-Turns	0.1		0.0		0.2		0.8		
Prop. Right-Turns	0.0		0.2		0.4		0.1		
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0		
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
hadj, computed	-0.0		-0.1		-0.2		0.1		
Departure Headway and Service Time									
hd, initial value (s)	3.20		3.20		3.20		3.20		
x, initial	0.25		0.22		0.04		0.07		
hd, final value (s)	4.54		4.49		5.06		5.28		
x, final value	0.35		0.31		0.07		0.12		
Move-up time, m (s)	2.0		2.0		2.0		2.0		
Service Time, t _s (s)	2.5		2.5		3.1		3.3		
Capacity and Level of Service									
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Capacity (veh/h)	530		500		300		330		
Delay (s/veh)	9.99		9.52		8.44		8.98		
LOS	A		A		A		A		
Approach: Delay (s/veh)	9.99		9.52		8.44		8.98		
LOS	A		A		A		A		
Intersection Delay (s/veh)	9.57								
Intersection LOS	A								

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Park Avenue/25th Street		
Agency/Co.	Hermosa Beach City School Dist			Jurisdiction	City of Hermosa Beach		
Date Performed	12/13/2015			Analysis Year	2018 Existing		
Analysis Time Period	AM Peak Half Hour						
Project Description North Elementary School							
East/West Street: 25th Street				North/South Street: Park Avenue			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		15	5	5	15		
Peak-Hour Factor, PHF	1.00	0.50	0.50	0.50	0.50	1.00	
Hourly Flow Rate, HFR (veh/h)	0	30	10	10	30	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				10		10	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.50	1.00	0.50	
Hourly Flow Rate, HFR (veh/h)	0	0	0	20	0	20	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		LT		LR			
v (veh/h)		10		40			
C (m) (veh/h)		1551		941			
v/c		0.01		0.04			
95% queue length		0.02		0.13			
Control Delay (s/veh)		7.3		9.0			
LOS		A		A			
Approach Delay (s/veh)	--	--	9.0				
Approach LOS	--	--	A				

ALL-WAY STOP CONTROL ANALYSIS								
General Information					Site Information			
Analyst	R Garland				Intersection	Valley Drive/Gould Avenue		
Agency/Co.	Hermosa Beach City School Dist				Jurisdiction	City of Hermosa Beach		
Date Performed	12/13/2015				Analysis Year	2018 Existing		
Analysis Time Period								
Project ID North Elementary School								
East/West Street: Gould Avenue					North/South Street: Valley Drive			
Volume Adjustments and Site Characteristics								
Approach	Eastbound			Westbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	15	115	40	115	120	45		
%Thrus Left Lane								
Approach	Northbound			Southbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	5	35	70	40	85	5		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	L	TR	LT	R	LTR	
PHF	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
Flow Rate (veh/h)	260	80	230	330	80	140	260	
% Heavy Vehicles	0	0	0	0	0	0	0	
No. Lanes	2		2		2		1	
Geometry Group	5		5		5		4b	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1	0.0	1.0	0.0	0.1	0.0	0.3	
Prop. Right-Turns	0.0	1.0	0.0	0.3	0.0	1.0	0.0	
Prop. Heavy Vehicle	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
hLT-adj	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2
hRT-adj	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.1	-0.7	0.5	-0.2	0.1	-0.7	0.0	
Departure Headway and Service Time								
hd, initial value (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.23	0.07	0.20	0.29	0.07	0.12	0.23	
hd, final value (s)	7.32	6.55	7.43	6.72	7.81	7.04	7.41	
x, final value	0.53	0.15	0.47	0.62	0.17	0.27	0.54	
Move-up time, m (s)	2.3		2.3		2.3		2.3	
Service Time, t _s (s)	5.0	4.2	5.1	4.4	5.5	4.7	5.1	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	472	330	473	523	330	390	463	
Delay (s/veh)	17.94	10.36	16.66	19.63	12.15	12.37	18.34	
LOS	C	B	C	C	B	B	C	
Approach: Delay (s/veh)	16.16		18.41		12.29		18.34	
LOS	C		C		B		C	
Intersection Delay (s/veh)	16.86							
Intersection LOS	C							

TWO-WAY STOP CONTROL SUMMARY									
General Information					Site Information				
Analyst	R Garland				Intersection	Valley Drive/25th Street			
Agency/Co.	Hermosa Beach City School Dist				Jurisdiction	City of Hermosa Beach			
Date Performed	12/13/2015				Analysis Year	2018 Existing			
Analysis Time Period	AM Peak Half Hour								
Project Description North Elementary School									
East/West Street: 25th Street					North/South Street: Valley Drive				
Intersection Orientation: North-South					Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments									
Major Street	Northbound			Southbound					
Movement	1	2	3	4	5	6			
	L	T	R	L	T	R			
Volume (veh/h)	5	100			230	10			
Peak-Hour Factor, PHF	0.50	0.50	1.00	1.00	0.50	0.50			
Hourly Flow Rate, HFR (veh/h)	10	200	0	0	460	20			
Percent Heavy Vehicles	0	--	--	0	--	--			
Median Type	Undivided								
RT Channelized			0			0			
Lanes	0	1	0	0	1	0			
Configuration	LT					TR			
Upstream Signal		0			0				
Minor Street	Eastbound			Westbound					
Movement	7	8	9	10	11	12			
	L	T	R	L	T	R			
Volume (veh/h)	10		5						
Peak-Hour Factor, PHF	0.50	1.00	0.50	1.00	1.00	1.00			
Hourly Flow Rate, HFR (veh/h)	20	0	10	0	0	0			
Percent Heavy Vehicles	0	0	0	0	0	0			
Percent Grade (%)	0			0					
Flared Approach		N			N				
Storage		0			0				
RT Channelized			0			0			
Lanes	0	0	0	0	0	0			
Configuration		LR							
Delay, Queue Length, and Level of Service									
Approach	Northbound	Southbound	Westbound			Eastbound			
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	LT						LR		
v (veh/h)	10						30		
C (m) (veh/h)	1085						453		
v/c	0.01						0.07		
95% queue length	0.03						0.21		
Control Delay (s/veh)	8.3						13.5		
LOS	A						B		
Approach Delay (s/veh)	--	--				13.5			
Approach LOS	--	--				B			