

**APPENDIX C**

**YEAR 2020 CONDITIONS -  
LEVEL OF SERVICE CALCULATION WORKSHEETS**

## YEAR 2020 CUMULATIVE TRAFFIC CONDITIONS

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Magnolia Avenue at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.783  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

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Street Name:	Magnolia Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	0	0	0	0	0	1	1

Volume Module:

Base Vol:	64	162	0	0	273	78	0	0	0	198	1257	80
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	72	181	0	0	306	87	0	0	0	222	1408	90
Added Vol:	0	72	0	0	48	0	0	0	0	5	15	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	253	0	0	354	87	0	0	0	227	1423	91
User 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
PHF 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
PHF Volume:	72	253	0	0	354	87	0	0	0	227	1423	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	253	0	0	354	87	0	0	0	227	1423	91
PCE 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
MLF 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
FinalVolume:	72	253	0	0	354	87	0	0	0	227	1423	91

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.80	0.20	0.00	0.00	0.00	0.39	2.45	0.16
Final Sat.:	1600	1600	0	0	1283	317	0	0	0	625	3925	250

Capacity Analysis Module:

Vol/Sat:	0.04	0.16	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.36	0.36	0.36
Crit Moves:	****			****						****		

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AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #2 Pacific Avenue at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.733  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

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Street Name:	Pacific Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	1	0	0	0	1	0	2

Volume Module:

Base Vol:	59	192	0	0	439	68	0	0	0	227	1352	117
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	66	215	0	0	492	76	0	0	0	254	1514	131
Added Vol:	0	86	0	0	56	0	0	0	0	0	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	301	0	0	548	76	0	0	0	254	1534	131
User 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
PHF 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
PHF Volume:	66	301	0	0	548	76	0	0	0	254	1534	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	301	0	0	548	76	0	0	0	254	1534	131
PCE 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
MLF 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
FinalVolume:	66	301	0	0	548	76	0	0	0	254	1534	131

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.76	0.24	0.00	0.00	0.00	1.00	2.76	0.24
Final Sat.:	1600	3200	0	0	2809	391	0	0	0	1600	4422	378

Capacity Analysis Module:

Vol/Sat:	0.04	0.09	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.16	0.35	0.35
Crit Moves:	****			****						****		

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AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #3 Pine Avenue at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.633
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B

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Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Pine Avenue and 7th Street with various traffic movements and lane configurations.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume for various movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat. for various movements.

Capacity Analysis Module table showing Vol/Sat, Crit Moves for various movements.

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AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #4 Long Beach Boulevard at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.806  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D

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Street Name:	Long Beach Boulevard						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	2	0	0	0	1	0	3

Volume Module:

Base Vol:	197	397	0	0	447	101	0	0	0	161	1444	118
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	221	445	0	0	501	113	0	0	0	180	1617	132
Added Vol:	0	109	0	0	66	0	0	0	0	0	18	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	554	0	0	567	113	0	0	0	180	1635	139
User 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
PHF 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
PHF Volume:	221	554	0	0	567	113	0	0	0	180	1635	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	554	0	0	567	113	0	0	0	180	1635	139
PCE 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
MLF 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
FinalVolume:	221	554	0	0	567	113	0	0	0	180	1635	139

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00	3.00	1.00
Final Sat.:	1600	3200	0	0	3200	1600	0	0	0	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.14	0.17	0.00	0.00	0.18	0.07	0.00	0.00	0.00	0.11	0.34	0.09
Crit Moves:	****				****						****	

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AM Cumulative (Year 2020)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #5 Atlantic Avenue at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.760  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

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Street Name:	Atlantic Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	1	0	0	0	0	0	1	1	0	

Volume Module:

Base Vol:	66	335	0	0	360	81	0	0	0	126	1652	121
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	74	375	0	0	403	91	0	0	0	141	1850	136
Added Vol:	0	60	0	0	37	0	0	0	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	435	0	0	440	91	0	0	0	141	1875	136
User 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
PHF 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
PHF Volume:	74	435	0	0	440	91	0	0	0	141	1875	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	435	0	0	440	91	0	0	0	141	1875	136
PCE 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
MLF 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
FinalVolume:	74	435	0	0	440	91	0	0	0	141	1875	136

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	1.71	0.00	0.00	1.66	0.34	0.00	0.00	0.00	0.20	2.61	0.19
Final Sat.:	465	2735	0	0	2653	547	0	0	0	315	4183	302

Capacity Analysis Module:

Vol/Sat:	0.05	0.16	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.45	0.45	0.45
Crit Moves:	****				****					****		

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AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #6 Martin Luther King Boulevard at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.321  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

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Street Name:	Martin Luther King Boulevard						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	2	0	1	0	0	1	0	0

Volume Module:

Base Vol:	75	141	362	135	61	118	0	0	0	0	1687	36
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	84	158	405	151	68	132	0	0	0	0	1889	40
Added Vol:	0	21	0	0	14	0	0	0	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	179	405	151	82	132	0	0	0	0	1914	40
User 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
PHF 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
PHF Volume:	84	179	405	151	82	132	0	0	0	0	1914	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	179	405	151	82	132	0	0	0	0	1914	40
PCE 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
MLF 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
FinalVolume:	84	179	405	151	82	132	0	0	0	0	1914	40
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	0.38	0.62	0.00	0.00	0.00	0.00	1.96	0.04
Final Sat.:	1600	1600	3200	1600	614	986	0	0	0	0	3134	66

Capacity Analysis Module:

Vol/Sat:	0.05	0.11	0.13	0.09	0.13	0.13	0.00	0.00	0.00	0.00	0.61	0.61
OvlAdjV/S:	0.00											
Crit Moves:	****			****						****		

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AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #7 Alamitos Boulevard at 7th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.972  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: E

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Street Name:	Alamitos Boulevard						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	1

Volume Module:	Alamitos Boulevard			Alamitos Boulevard			7th Street			7th Street		
Base Vol:	68	350	104	58	437	126	51	477	9	234	1554	56
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	76	392	116	65	489	141	57	534	10	262	1740	63
Added Vol:	0	32	7	0	20	0	0	0	0	1	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	424	123	65	509	141	57	534	10	263	1765	63
User 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
PHF 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
PHF Volume:	76	424	123	65	509	141	57	534	10	263	1765	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	424	123	65	509	141	57	534	10	263	1765	63
PCE 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
MLF 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
FinalVolume:	76	424	123	65	509	141	57	534	10	263	1765	63

Saturation Flow Module:	Alamitos Boulevard			Alamitos Boulevard			7th Street			7th Street		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.57	0.43	1.00	1.96	0.04	1.00	1.93	0.07
Final Sat.:	1600	3200	1600	1600	2506	694	1600	3141	59	1600	3090	110

Capacity Analysis Module:	Alamitos Boulevard			Alamitos Boulevard			7th Street			7th Street		
Vol/Sat:	0.05	0.13	0.08	0.04	0.20	0.20	0.04	0.17	0.17	0.16	0.57	0.57
Crit Moves:	****			****						****		

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #8 Magnolia Avenue at 6th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.557

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: A

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Street Name: Magnolia Avenue 6th Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 1 0 1 0 1 0 0 0 1 1 1 0 0 0 0 0 0

Volume Module:

Base Vol: 0 151 63 78 423 0 78 421 42 0 0 0

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 169 71 87 474 0 87 472 47 0 0 0

Added Vol: 0 72 1 1 53 0 0 6 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 241 72 88 527 0 87 478 47 0 0 0

User 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

PHF 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

PHF Volume: 0 241 72 88 527 0 87 478 47 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 241 72 88 527 0 87 478 47 0 0 0

PCE 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

MLF 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

FinalVolume: 0 241 72 88 527 0 87 478 47 0 0 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.77 0.23 1.00 1.00 0.00 0.43 2.34 0.23 0.00 0.00 0.00

Final Sat.: 0 1234 366 1600 1600 0 685 3746 369 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.20 0.20 0.06 0.33 0.00 0.13 0.13 0.13 0.00 0.00 0.00

Crit Moves: \*\*\*\*

\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #9 Magnolia Avenue at 5th Street
\*\*\*\*\*

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: C[ 15.3]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for Magnolia Avenue and 5th Street.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with columns: Critical Gap Module, Critical Gp, FollowUpTim.

Table with columns: Capacity Module, Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns: Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #10 Alamitos Boulevard at 4th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.802
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Alamitos Boulevard 4th Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0

Volume Module:
Base Vol: 51 407 55 141 701 40 42 206 26 138 421 87
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 57 456 62 158 785 45 47 231 29 155 472 97
Added Vol: 0 43 0 0 33 3 14 6 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 57 499 62 158 818 48 61 237 29 155 475 97
User 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
PHF 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
PHF Volume: 57 499 62 158 818 48 61 237 29 155 475 97
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 499 62 158 818 48 61 237 29 155 475 97
PCE 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
MLF 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
FinalVolume: 57 499 62 158 818 48 61 237 29 155 475 97

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.78 0.22 1.00 1.89 0.11 1.00 0.89 0.11 1.00 0.83 0.17
Final Sat.: 1600 2848 352 1600 3023 177 1600 1425 175 1600 1327 273

Capacity Analysis Module:
Vol/Sat: 0.04 0.18 0.18 0.10 0.27 0.27 0.04 0.17 0.17 0.10 0.36 0.36
Crit Moves: \*\*\*\*

\*\*\*\*\*

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #11 Magnolia Avenue at 3rd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Magnolia Avenue						3rd Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Vol:	45	104	0	0	358	107	0	0	0	155	1095	88
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	50	116	0	0	401	120	0	0	0	174	1226	99
Added Vol:	18	43	0	0	41	5	0	0	0	11	187	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	159	0	0	442	125	0	0	0	185	1413	126
User 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
PHF 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
PHF Volume:	68	159	0	0	442	125	0	0	0	185	1413	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	159	0	0	442	125	0	0	0	185	1413	126
PCE 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
MLF 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
FinalVolume:	68	159	0	0	442	125	0	0	0	185	1413	126

Saturation Flow Module:	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.56	0.44	0.00	0.00	0.00	0.32	2.46	0.22
Final Sat.:	1600	1600	0	0	2495	705	0	0	0	514	3936	350

Capacity Analysis Module:	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Vol/Sat:	0.04	0.10	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.36	0.36	0.36
Crit Moves:	****			****						****		

\*\*\*\*\*

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #12 Magnolia Avenue at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.563  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name:	Magnolia Avenue						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	1	2	0	0	0

Volume Module:

Base Vol:	0	107	140	106	387	0	33	840	347	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	120	157	119	433	0	37	941	389	0	0	0
Added Vol:	0	59	1	9	43	0	1	121	50	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	179	158	128	476	0	38	1062	439	0	0	0
User 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
PHF 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
PHF Volume:	0	179	158	128	476	0	38	1062	439	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	179	158	128	476	0	38	1062	439	0	0	0
PCE 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
MLF 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
FinalVolume:	0	179	158	128	476	0	38	1062	439	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.42	1.58	0.00	0.10	2.90	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	676	2524	0	166	4634	1600	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.06	0.10	0.08	0.19	0.00	0.23	0.23	0.27	0.00	0.00	0.00
Crit Moves:	****				****				****			

\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #13 Pacific Avenue at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.566
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Pacific Avenue and Broadway Avenue with North and South Bound movements.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #14 Pine Avenue at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.472  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name:	Pine Avenue						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	1	0	2	1	0	0

Volume Module:

Base Vol:	0	59	42	49	236	0	39	571	138	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	66	47	55	264	0	44	640	155	0	0	0
Added Vol:	0	21	0	37	14	0	22	156	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	87	47	92	278	0	66	796	155	0	0	0
User 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
PHF 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
PHF Volume:	0	87	47	92	278	0	66	796	155	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	87	47	92	278	0	66	796	155	0	0	0
PCE 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
MLF 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
FinalVolume:	0	87	47	92	278	0	66	796	155	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.65	0.35	1.00	1.00	0.00	1.00	2.51	0.49	0.00	0.00	0.00
Final Sat.:	0	1039	561	1600	1600	0	1600	4019	781	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.08	0.06	0.17	0.00	0.04	0.20	0.20	0.00	0.00	0.00
Crit Moves:	****			****			****					

\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #15 Alamitos Boulevard at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.872
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Alamitos Boulevard and Broadway Avenue with North, South, East, and West Bound movements.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows include Alamitos Boulevard and Broadway Avenue.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Alamitos Boulevard and Broadway Avenue.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves. Rows include Alamitos Boulevard and Broadway Avenue.

\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:Golden Shore Street/Golden Avenue Ocean Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 0 0 1 0 2 1 0 1 0 2 1 1

Volume Module:

Base Vol: 19 52 124 3 6 0 56 643 129 106 1590 663
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 21 58 139 3 7 0 63 720 144 119 1781 743
Added Vol: 0 0 0 0 0 0 0 0 8 0 0 1 184
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 58 139 3 7 0 63 728 144 119 1782 927
User 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
PHF 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
PHF Volume: 21 58 139 3 7 0 63 728 144 119 1782 927
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 21 58 139 3 7 0 63 728 144 119 1782 927
PCE 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
MLF 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
FinalVolume: 21 58 139 3 7 0 63 728 144 119 1782 927

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 2.50 0.50 1.00 2.63 1.37
Final Sat.: 1600 1600 1600 1600 1600 0 1600 4005 795 1600 4210 2190

Capacity Analysis Module:

Vol/Sat: 0.01 0.04 0.09 0.00 0.00 0.00 0.04 0.18 0.18 0.07 0.42 0.42
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Magnolia Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.920
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 111 Level Of Service: E

\*\*\*\*\*

Street Name: Magnolia Avenue Ocean Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Control, Rights, Min. Green, Y+R, Lanes for each approach. Values include Permitted, Include, and various timing parameters.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #18 Chestnut Place at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.662  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name:	Chestnut Place						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	3

Volume Module:	Chestnut Place			Chestnut Place			Ocean Boulevard			Ocean Boulevard		
Base Vol:	42	0	60	0	0	0	0	773	29	67	2011	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	47	0	67	0	0	0	0	866	32	75	2252	0
Added Vol:	41	0	28	0	0	0	0	54	9	6	162	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	0	95	0	0	0	0	920	41	81	2414	0
User 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
PHF 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
PHF Volume:	88	0	95	0	0	0	0	920	41	81	2414	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	0	95	0	0	0	0	920	41	81	2414	0
PCE 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
MLF 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
FinalVolume:	88	0	95	0	0	0	0	920	41	81	2414	0

Saturation Flow Module:	Chestnut Place			Chestnut Place			Ocean Boulevard			Ocean Boulevard		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.87	0.13	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4593	207	1600	4800	0

Capacity Analysis Module:	Chestnut Place			Chestnut Place			Ocean Boulevard			Ocean Boulevard		
Vol/Sat:	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.20	0.20	0.05	0.50	0.00
Crit Moves:	***			***			***			***		

\*\*\*\*\*

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Pacific Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Pacific Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0 0	2	0	0 0 1	1	0	2 1 0	1	0	3 0 1

Volume Module:

Base Vol:	3	2	3	86	0	289	166	655	7	25	1853	157
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	3	2	3	96	0	324	186	734	8	28	2075	176
Added Vol:	0	0	0	17	0	5	8	74	0	0	164	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	2	3	113	0	329	194	808	8	28	2239	195
User 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
PHF 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
PHF Volume:	3	2	3	113	0	329	194	808	8	28	2239	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	2	3	113	0	329	194	808	8	28	2239	195
PCE 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
MLF 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
FinalVolume:	3	2	3	113	0	329	194	808	8	28	2239	195
OvlAdjVol:	135											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.37	0.25	0.38	2.00	0.00	1.00	1.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	600	400	600	3200	0	1600	1600	4754	46	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.01	0.01	0.04	0.00	0.21	0.12	0.17	0.17	0.02	0.47	0.12
OvlAdjV/S:	0.08											
Crit Moves:	****			****			****			****		

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AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #20 Pine Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Pine Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	1	0	3

Volume Module:	Pine Avenue NB			Pine Avenue SB			Ocean Boulevard EB			Ocean Boulevard WB		
Base Vol:	36	24	19	27	65	65	34	672	74	95	2075	96
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	27	21	30	73	73	38	753	83	106	2324	108
Added Vol:	4	4	15	2	5	7	12	93	5	21	136	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	31	36	32	78	80	50	846	88	127	2460	114
User 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
PHF 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
PHF Volume:	44	31	36	32	78	80	50	846	88	127	2460	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	31	36	32	78	80	50	846	88	127	2460	114
PCE 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
MLF 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
FinalVolume:	44	31	36	32	78	80	50	846	88	127	2460	114

Saturation Flow Module:	Pine Avenue NB			Pine Avenue SB			Ocean Boulevard EB			Ocean Boulevard WB		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.29	0.71	1.00	1.00	2.72	0.28	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	469	1131	1600	1600	4348	452	1600	4800	1600

Capacity Analysis Module:	Pine Avenue NB			Pine Avenue SB			Ocean Boulevard EB			Ocean Boulevard WB		
Vol/Sat:	0.03	0.02	0.02	0.02	0.07	0.05	0.03	0.19	0.19	0.08	0.51	0.07
Crit Moves:	****			****			****			****		

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AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #21 Long Beach Boulevard at Ocean Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.851
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Long Beach Boulevard and Ocean Boulevard with various movement and control details.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #22 Atlantic Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.768
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Atlantic Avenue and Ocean Boulevard with North, South, East, and West bound movements.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

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AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #23 Shoreline Drive/Alamitos Boulevard at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.262
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Shoreline Drive/Alamitos Boulevard and Ocean Boulevard with various approach and movement details.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows include various volume and adjustment factors.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include saturation flow and adjustment factors.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves. Rows include volume to saturation ratio and critical moves.

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #24 Golden Shore Street at Seaside Way (2)

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: C[ 16.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes for Golden Shore Street and Seaside Way.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module table showing Critical Gp and FollowUpTim values.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

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 Intersection #25 Chestnut Place at Seaside Way  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.171  
 Loss Time (sec): 0 Average Delay (sec/veh): 8.7  
 Optimal Cycle: 0 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Chestnut Place						Seaside Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	95	61	13	8	50	38	14	35	1	45	58	27
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	106	68	15	9	56	43	16	39	1	50	65	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	68	15	9	56	43	16	39	1	50	65	30
User 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
PHF 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
PHF Volume:	106	68	15	9	56	43	16	39	1	50	65	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	68	15	9	56	43	16	39	1	50	65	30
PCE 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
MLF 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
FinalVolume:	106	68	15	9	56	43	16	39	1	50	65	30

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	0.57	0.43	0.29	0.71	1.00	0.69	0.89	0.42
Final Sat.:	622	574	122	609	401	305	177	442	723	424	590	285

Capacity Analysis Module:

Vol/Sat:	0.17	0.12	0.12	0.01	0.14	0.14	0.09	0.09	0.00	0.12	0.11	0.11
Crit Moves:	****			****			****			****		
Delay/Veh:	9.4	8.4	8.4	8.5	8.4	8.4	8.8	8.8	7.4	9.1	8.6	8.3
Delay 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
AdjDel/Veh:	9.4	8.4	8.4	8.5	8.4	8.4	8.8	8.8	7.4	9.1	8.6	8.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.0			8.4			8.7			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.0			8.4			8.7			8.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1

AM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #26 Pine Avenue at Seaside Way

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.290  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name:	Pine Avenue						Seaside Way					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	4	38	34	65	134	35	17	39	8	30	38	21
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	4	43	38	73	150	39	19	44	9	34	43	24
Added Vol:	0	22	0	0	31	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	65	38	73	181	39	19	44	9	34	43	24
User 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
PHF 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
PHF Volume:	4	65	38	73	181	39	19	44	9	34	43	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	65	38	73	181	39	19	44	9	34	43	24
PCE 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
MLF 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
FinalVolume:	4	65	38	73	181	39	19	44	9	34	43	24

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.64	0.36	1.00	0.83	0.17	1.00	1.00	1.00
Final Sat.:	1600	1600	1600	1600	2631	569	1600	1328	272	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.04	0.02	0.05	0.07	0.07	0.01	0.03	0.03	0.02	0.03	0.01
Crit Moves:	****			****			****			****		

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AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #27 Golden Shore Street at I-710 SB Off-Ramp
\*\*\*\*\*

Average Delay (sec/veh): 8.7 Worst Case Level Of Service: B[ 12.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include Golden Shore Street and I-710 SB Off-Ramp with various traffic parameters.

Table with columns for Volume Module parameters: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module parameters: Critical Gp, FollowUpTim.

Table with columns for Capacity Module parameters: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level Of Service Module parameters: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #28 Golden Shore Street at Shoreline Drive

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[ 12.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes for Golden Shore Street and Shoreline Drive.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module table showing Critical Gp and FollowUpTim values.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #29 Chestnut Place at Shoreline Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.367
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name: Chestnut Place Shoreline Drive

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 0 1 0 1 0 0 1 2 0 3 0 1 2 0 3 1 0

Volume Module:
Base Vol: 1 0 32 8 2 84 56 188 14 144 270 117
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 1 0 36 9 2 94 63 211 16 161 302 131
Added Vol: 0 0 0 0 0 0 0 0 57 38 0 41 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 1 0 36 9 2 94 63 268 54 161 343 131
User 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
PHF 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
PHF Volume: 1 0 36 9 2 94 63 268 54 161 343 131
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 0 36 9 2 94 63 268 54 161 343 131
PCE 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
MLF 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
FinalVolume: 1 0 36 9 2 94 63 268 54 161 343 131

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.80 0.20 1.00 2.00 3.00 1.00 2.00 3.00 1.00
Final Sat.: 3200 0 1600 1280 320 1600 3200 4800 1600 3200 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.02 0.01 0.01 0.06 0.02 0.06 0.03 0.05 0.07 0.08
Crit Moves: \*\*\*\*

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AM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #30 Pine Avenue at Shoreline Drive
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.402
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A
\*\*\*\*\*

Table with columns for Street Name (Pine Avenue, Shoreline Drive), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and various traffic volume and timing metrics like Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, and other capacity-related metrics.

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Magnolia Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name: Magnolia Avenue 7th Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 1 1 0

Volume Module:

Base Vol: 102 350 0 0 310 61 0 0 0 99 654 114

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 114 392 0 0 347 68 0 0 0 111 732 128

Added Vol: 0 66 0 0 79 0 0 0 0 1 13 1

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 114 458 0 0 426 68 0 0 0 112 745 129

User 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

PHF 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

PHF Volume: 114 458 0 0 426 68 0 0 0 112 745 129

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 114 458 0 0 426 68 0 0 0 112 745 129

PCE 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

MLF 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

FinalVolume: 114 458 0 0 426 68 0 0 0 112 745 129

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.00 0.00 0.00 0.86 0.14 0.00 0.00 0.00 0.34 2.27 0.39

Final Sat.: 1600 1600 0 0 1379 221 0 0 0 545 3629 626

Capacity Analysis Module:

Vol/Sat: 0.07 0.29 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.21 0.21 0.21

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #2 Pacific Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.590  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name:	Pacific Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	1	0	0	0	1	0	2

Volume Module:	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Vol:	64	522	0	0	374	60	0	0	0	120	777	121
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	72	585	0	0	419	67	0	0	0	134	870	136
Added Vol:	0	80	0	0	98	0	0	0	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	665	0	0	517	67	0	0	0	134	885	136
User 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
PHF 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
PHF Volume:	72	665	0	0	517	67	0	0	0	134	885	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	665	0	0	517	67	0	0	0	134	885	136
PCE 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
MLF 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
FinalVolume:	72	665	0	0	517	67	0	0	0	134	885	136

Saturation Flow Module:	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.77	0.23	0.00	0.00	0.00	1.00	2.60	0.40
Final Sat.:	1600	3200	0	0	2832	368	0	0	0	1600	4163	637

Capacity Analysis Module:	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Vol/Sat:	0.04	0.21	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.08	0.21	0.21
Crit Moves:	****			****						****		

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PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #3 Pine Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.542  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name:	Pine Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:	Pine Avenue			Pine Avenue			7th Street			7th Street		
Base Vol:	79	194	0	0	133	59	0	0	0	82	866	107
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	88	217	0	0	149	66	0	0	0	92	970	120
Added Vol:	9	49	0	0	64	0	0	0	0	3	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	266	0	0	213	66	0	0	0	95	976	120
User 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
PHF 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
PHF Volume:	97	266	0	0	213	66	0	0	0	95	976	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	266	0	0	213	66	0	0	0	95	976	120
PCE 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
MLF 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
FinalVolume:	97	266	0	0	213	66	0	0	0	95	976	120

Saturation Flow Module:	Pine Avenue			Pine Avenue			7th Street			7th Street		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.24	2.46	0.30
Final Sat.:	1600	1600	0	0	1600	1600	0	0	0	382	3935	483

Capacity Analysis Module:	Pine Avenue			Pine Avenue			7th Street			7th Street		
Vol/Sat:	0.06	0.17	0.00	0.00	0.13	0.04	0.00	0.00	0.00	0.25	0.25	0.25
Crit Moves:	****				****							****

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PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #4 Long Beach Boulevard at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.617  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name: Long Beach Boulevard 7th Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	2	0	0	0	1	0	3

Volume Module:

Base Vol:	160	517	0	0	382	85	0	0	0	145	778	79
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	179	579	0	0	428	95	0	0	0	162	871	88
Added Vol:	0	91	0	0	122	0	0	0	0	0	9	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	179	670	0	0	550	95	0	0	0	162	880	101
User 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
PHF 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
PHF Volume:	179	670	0	0	550	95	0	0	0	162	880	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	670	0	0	550	95	0	0	0	162	880	101
PCE 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
MLF 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
FinalVolume:	179	670	0	0	550	95	0	0	0	162	880	101

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00	3.00	1.00
Final Sat.:	1600	3200	0	0	3200	1600	0	0	0	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.21	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.10	0.18	0.06
Crit Moves:	****				****						****	

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PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #5 Atlantic Avenue at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.546
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Atlantic Avenue and 7th Street with various movement and lane configurations.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows include Atlantic Avenue and 7th Street.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Atlantic Avenue and 7th Street.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves. Rows include Atlantic Avenue and 7th Street.

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #6 Martin Luther King Boulevard at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.519
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound and South Bound for both East and West Bound directions.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

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PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #7 Alamitos Boulevard at 7th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Alamitos Boulevard and 7th Street with various movement and control details.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows show traffic volume and adjustment factors.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows show saturation flow and lane-related metrics.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves. Rows show capacity analysis and critical moves.

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #8 Magnolia Avenue at 6th Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.827
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Magnolia Avenue 6th Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 1 0 1 0 1 0 0 0 1 1 1 0 0 0 0 0 0

Volume Module:
Base Vol: 0 360 68 99 307 0 93 1169 60 0 0 0
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 0 403 76 111 344 0 104 1309 67 0 0 0
Added Vol: 0 66 5 1 79 0 0 20 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 469 81 112 423 0 104 1329 67 0 0 0
User 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
PHF 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
PHF Volume: 0 469 81 112 423 0 104 1329 67 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 469 81 112 423 0 104 1329 67 0 0 0
PCE 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
MLF 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
FinalVolume: 0 469 81 112 423 0 104 1329 67 0 0 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.85 0.15 1.00 1.00 0.00 0.21 2.66 0.13 0.00 0.00 0.00
Final Sat.: 0 1364 236 1600 1600 0 333 4252 215 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.34 0.07 0.26 0.00 0.31 0.31 0.31 0.00 0.00 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

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PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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 Intersection #9 Magnolia Avenue at 5th Street  
 \*\*\*\*\*

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: C[ 24.4]  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module:	Magnolia Avenue			Magnolia Avenue			5th Street			5th Street		
Base Vol:	11	390	14	24	310	51	14	24	16	11	11	45
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	12	437	16	27	347	57	16	27	18	12	12	50
Added Vol:	0	71	0	0	79	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	508	16	27	426	57	16	27	18	12	12	50
User 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
PHF 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
PHF Volume:	12	508	16	27	426	57	16	27	18	12	12	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	508	16	27	426	57	16	27	18	12	12	50

Critical Gap Module:	Magnolia Avenue			Magnolia Avenue			5th Street			5th Street		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Magnolia Avenue			Magnolia Avenue			5th Street			5th Street		
Cnflict Vol:	483	xxxx	xxxxx	523	xxxx	xxxxx	1080	1057	455	1071	1077	516
Potent Cap.:	1090	xxxx	xxxxx	1053	xxxx	xxxxx	197	227	610	200	221	563
Move Cap.:	1090	xxxx	xxxxx	1053	xxxx	xxxxx	167	219	610	171	213	563
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	0.09	0.12	0.03	0.07	0.06	0.09

Level Of Service Module:	Magnolia Avenue			Magnolia Avenue			5th Street			5th Street		
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.3	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	246	xxxxx	xxxx	342	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	xxxxx	0.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	24.4	xxxxx	xxxxx	18.5	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	C	*
ApproachDel:	xxxxxxx			xxxxxxx			24.4			18.5		
ApproachLOS:		*			*			C			C	

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #10 Alamitos Boulevard at 4th Street

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.998  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Street Name:	Alamitos Boulevard						4th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	43	977	183	174	465	43	56	423	22	62	272	45
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	48	1094	205	195	521	48	63	474	25	69	305	50
Added Vol:	0	38	0	0	55	7	12	5	0	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	1132	205	195	576	55	75	479	25	69	312	50
User 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
PHF 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
PHF Volume:	48	1132	205	195	576	55	75	479	25	69	312	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1132	205	195	576	55	75	479	25	69	312	50
PCE 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
MLF 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
FinalVolume:	48	1132	205	195	576	55	75	479	25	69	312	50

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	0.91	0.09	1.00	0.95	0.05	1.00	0.86	0.14
Final Sat.:	1600	2710	490	1600	1460	140	1600	1522	78	1600	1377	223

Capacity Analysis Module:

Vol/Sat:	0.03	0.42	0.42	0.12	0.39	0.39	0.05	0.31	0.31	0.04	0.23	0.23
Crit Moves:	****			****			****			****		

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PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #11 Magnolia Avenue at 3rd Street

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.658
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name: Magnolia Avenue 3rd Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 0 0 0 1 1 0 0 0 0 0 0 1 1 1 0

Volume Module:
Base Vol: 79 346 0 0 254 58 0 0 0 98 694 68
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 88 388 0 0 284 65 0 0 0 110 777 76
Added Vol: 27 47 0 0 56 2 0 0 0 2 149 22
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 115 435 0 0 340 67 0 0 0 112 926 98
User 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
PHF 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
PHF Volume: 115 435 0 0 340 67 0 0 0 112 926 98
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 115 435 0 0 340 67 0 0 0 112 926 98
PCE 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
MLF 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
FinalVolume: 115 435 0 0 340 67 0 0 0 112 926 98

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 1.67 0.33 0.00 0.00 0.00 0.29 2.45 0.26
Final Sat.: 1600 1600 0 0 2674 526 0 0 0 472 3913 415

Capacity Analysis Module:
Vol/Sat: 0.07 0.27 0.00 0.00 0.13 0.13 0.00 0.00 0.00 0.24 0.24 0.24
Crit Moves: \*\*\*\*

\*\*\*\*\*

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #12 Magnolia Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.593  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	1	0	1	2	0	0	0

Volume Module:

Base Vol:	0	323	69	58	279	0	90	988	176	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	362	77	65	312	0	101	1107	197	0	0	0
Added Vol:	0	68	10	13	45	0	6	276	112	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	430	87	78	357	0	107	1383	309	0	0	0
User 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
PHF 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
PHF Volume:	0	430	87	78	357	0	107	1383	309	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	430	87	78	357	0	107	1383	309	0	0	0
PCE 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
MLF 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
FinalVolume:	0	430	87	78	357	0	107	1383	309	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.36	1.64	0.00	0.22	2.78	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	573	2627	0	344	4456	1600	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.13	0.05	0.05	0.14	0.00	0.31	0.31	0.19	0.00	0.00	0.00
Crit Moves:	****			****			****					

\*\*\*\*\*

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #13 Pacific Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Pacific Avenue						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	0	1	1	0	0	0

Volume Module:	Pacific Avenue			Pacific Avenue			Broadway Avenue			Broadway Avenue		
Base Vol:	0	445	241	92	196	0	86	1238	97	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	498	270	103	220	0	96	1387	109	0	0	0
Added Vol:	0	21	0	24	28	0	24	243	5	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	519	270	127	248	0	120	1630	114	0	0	0
User 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
PHF 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
PHF Volume:	0	519	270	127	248	0	120	1630	114	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	519	270	127	248	0	120	1630	114	0	0	0
PCE 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
MLF 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
FinalVolume:	0	519	270	127	248	0	120	1630	114	0	0	0

Saturation Flow Module:	Pacific Avenue			Pacific Avenue			Broadway Avenue			Broadway Avenue		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.19	2.63	0.18	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	310	4197	293	0	0	0

Capacity Analysis Module:	Pacific Avenue			Pacific Avenue			Broadway Avenue			Broadway Avenue		
Vol/Sat:	0.00	0.16	0.17	0.08	0.08	0.00	0.39	0.39	0.39	0.00	0.00	0.00
Crit Moves:		****	****	****	****		****	****	****			

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #14 Pine Avenue at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name:	Pine Avenue						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	0	1	0	1	0	2	1	0	0

Volume Module:	Pine Avenue			Pine Avenue			Broadway Avenue			Broadway Avenue		
Base Vol:	0	216	96	83	149	0	46	1476	86	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	242	108	93	167	0	52	1653	96	0	0	0
Added Vol:	0	17	0	33	24	0	59	208	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	259	108	126	191	0	111	1861	96	0	0	0
User 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
PHF 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
PHF Volume:	0	259	108	126	191	0	111	1861	96	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	259	108	126	191	0	111	1861	96	0	0	0
PCE 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
MLF 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
FinalVolume:	0	259	108	126	191	0	111	1861	96	0	0	0

Saturation Flow Module:	Pine Avenue			Pine Avenue			Broadway Avenue			Broadway Avenue		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.71	0.29	1.00	1.00	0.00	1.00	2.85	0.15	0.00	0.00	0.00
Final Sat.:	0	1131	469	1600	1600	0	1600	4564	236	0	0	0

Capacity Analysis Module:	Pine Avenue			Pine Avenue			Broadway Avenue			Broadway Avenue		
Vol/Sat:	0.00	0.23	0.23	0.08	0.12	0.00	0.07	0.41	0.41	0.00	0.00	0.00
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #15 Alamitos Boulevard at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.809

Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Alamitos Boulevard Broadway Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Prot+Permit

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 1 1 0 1 0 1 0 0 2 0 2 0 1 1 0 0 0 1

Volume Module:

Base Vol: 0 839 37 58 404 0 550 550 117 118 0 153

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 940 41 65 452 0 616 616 131 132 0 171

Added Vol: 0 27 0 0 33 0 11 51 56 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 967 41 65 485 0 627 667 187 132 0 171

User 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

PHF 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

PHF Volume: 0 967 41 65 485 0 627 667 187 132 0 171

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 967 41 65 485 0 627 667 187 132 0 171

PCE 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

MLF 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

FinalVolume: 0 967 41 65 485 0 627 667 187 132 0 171

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 1.92 0.08 1.00 1.00 0.00 2.00 2.00 1.00 1.00 0.00 1.00

Final Sat.: 0 3068 132 1600 1600 0 3200 3200 1600 1600 0 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.32 0.32 0.04 0.30 0.00 0.20 0.21 0.12 0.08 0.00 0.11

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.832
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Golden Shore Street/Golden Avenue and Ocean Boulevard with sub-rows for North, South, East, and West Bound movements.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows include various traffic volume and adjustment factors.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include saturation flow and adjustment factors.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves. Rows include capacity analysis results.

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Magnolia Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.835
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Magnolia Avenue, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic volume and delay metrics.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #18 Chestnut Place at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.751
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Chestnut Place and Ocean Boulevard with various traffic parameters.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Rows include Chestnut Place and Ocean Boulevard.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Chestnut Place and Ocean Boulevard.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves. Rows include Chestnut Place and Ocean Boulevard.

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Pacific Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name: Pacific Avenue Ocean Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Prot+Permit Prot+Permit
Rights: Include Ovl Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1! 0 0 2 0 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:

Base Vol: 13 5 18 133 0 152 198 2030 10 30 1110 180
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 15 6 20 149 0 170 222 2274 11 34 1243 202
Added Vol: 0 0 0 25 0 8 6 112 0 0 134 15
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 15 6 20 174 0 178 228 2386 11 34 1377 217
User 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
PHF 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
PHF Volume: 15 6 20 174 0 178 228 2386 11 34 1377 217
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 15 6 20 174 0 178 228 2386 11 34 1377 217
PCE 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
MLF 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
FinalVolume: 15 6 20 174 0 178 228 2386 11 34 1377 217
OvlAdjVol: 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.36 0.14 0.50 2.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
Final Sat.: 578 222 800 3200 0 1600 1600 4778 22 1600 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.01 0.03 0.03 0.05 0.00 0.11 0.14 0.50 0.50 0.02 0.29 0.14
OvlAdjV/S: 0.00
Crit Moves: \*\*\*\*

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #20 Pine Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.897
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 98 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Pine Avenue, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #21 Long Beach Boulevard at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.668

Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name: Long Beach Boulevard Ocean Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Prot+Permit Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 1 0 1! 0 1 1 0 3 0 0 0 0 0 3 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 118 0 174 155 1934 0 0 1073 175

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bse: 0 0 0 132 0 195 174 2166 0 0 1202 196

Added Vol: 0 0 0 5 0 41 32 90 0 0 121 3

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 137 0 236 206 2256 0 0 1323 199

User 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

PHF 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

PHF Volume: 0 0 0 137 0 236 206 2256 0 0 1323 199

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 137 0 236 206 2256 0 0 1323 199

PCE 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

MLF 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

FinalVolume: 0 0 0 137 0 236 206 2256 0 0 1323 199

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.10 xxxx 1.90 1.00 3.00 0.00 0.00 3.00 1.00

Final Sat.: 0 0 0 1765 0 3035 1600 4800 0 0 4800 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.08 0.00 0.08 0.13 0.47 0.00 0.00 0.28 0.12

Crit Moves: \*\*\*\*

\*\*\*\*\*

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #22 Atlantic Avenue at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Atlantic Avenue						Ocean Boulevard									
	North Bound			South Bound			East Bound			West Bound						
Approach:	L - T - R			L - T - R			L - T - R			L - T - R						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Permitted			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	0	1	0	0	0	0	0	1	0	0	1	1	0	2	1	0

Volume Module:												
Base Vol:	4	2	0	108	4	145	151	1881	4	19	1075	64
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	4	2	0	121	4	162	169	2107	4	21	1204	72
Added Vol:	0	0	0	7	0	24	18	77	0	0	101	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	2	0	128	4	186	187	2184	4	21	1305	78
User 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
PHF 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
PHF Volume:	4	2	0	128	4	186	187	2184	4	21	1305	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	2	0	128	4	186	187	2184	4	21	1305	78
PCE 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
MLF 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
FinalVolume:	4	2	0	128	4	186	187	2184	4	21	1305	78

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.33	0.00	0.97	0.03	1.00	1.00	2.99	0.01	1.00	2.83	0.17
Final Sat.:	1067	533	0	1546	54	1600	1600	4790	10	1600	4530	270

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.08	0.08	0.12	0.12	0.46	0.46	0.01	0.29	0.29
Crit Moves:	****					****		****		****		

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #23 Shoreline Drive/Alamitos Boulevard at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.193
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound.

Table with columns for Volume Module and rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns for Saturation Flow Module and rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module and rows for Vol/Sat, Crit Moves.

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #24 Golden Shore Street at Seaside Way (2)  
 \*\*\*\*\*

Average Delay (sec/veh): 7.8 Worst Case Level Of Service: D[ 26.2]  
 \*\*\*\*\*

Street Name:	Golden Shore Street						Seaside Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	1	0	0	0	1	0	0	1

Volume Module:	Golden Shore Street			Golden Shore Street			Seaside Way			Seaside Way		
Base Vol:	4	388	23	30	66	7	36	2	3	5	1	341
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	4	435	26	34	74	8	40	2	3	6	1	382
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	10	0	0	0	0	4	79	0	30	0	0	0
Initial Fut:	14	435	26	34	74	12	119	2	33	6	1	382
User 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
PHF 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
PHF Volume:	14	435	26	34	74	12	119	2	33	6	1	382
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	435	26	34	74	12	119	2	33	6	1	382

Critical Gap Module:	Golden Shore Street			Golden Shore Street			Seaside Way			Seaside Way		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Golden Shore Street			Golden Shore Street			Seaside Way			Seaside Way		
Cnflct Vol:	86	xxxx	xxxxx	460	xxxx	xxxxx	394	636	43	582	629	230
Potent Cap.:	1523	xxxx	xxxxx	1111	xxxx	xxxxx	545	398	1025	401	402	778
Move Cap.:	1523	xxxx	xxxxx	1111	xxxx	xxxxx	269	382	1025	374	386	778
Volume/Cap:	0.01	xxxx	xxxxx	0.03	xxxx	xxxxx	0.44	0.01	0.03	0.01	0.00	0.49

Level Of Service Module:	Golden Shore Street			Golden Shore Street			Seaside Way			Seaside Way		
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	1.0
Control Del:	7.4	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.7	xxxx	11.1
LOS by Move:	A	*	*	A	*	*	*	*	*	B	*	B
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	321	xxxxx	xxxx	762	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.5	xxxxx	xxxxx	1.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	26.2	xxxxx	xxxxx	11.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	26.2	xxxxxx	xxxxxx	11.3	xxxxxx	
ApproachLOS:	*	*	*	*	*	*	D	*	*	B	B	

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #25 Chestnut Place at Seaside Way
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.286
Loss Time (sec): 0 Average Delay (sec/veh): 8.8
Optimal Cycle: 0 Level Of Service: A
\*\*\*\*\*

Table with columns for Street Name (Chestnut Place, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign), Rights (Include), Min. Green, and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume across various movements.

Table for Saturation Flow Module showing Adjustment, Lanes, and Final Sat. for different movements.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

PM Cumulative (Year 2020)  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #26 Pine Avenue at Seaside Way  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.345  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name: Pine Avenue			Seaside Way									
Approach: North Bound			South Bound			East Bound			West Bound			
Movement: L - T - R			L - T - R			L - T - R			L - T - R			
Control: Protected			Protected			Permitted			Permitted			
Rights: Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	2	153	13	23	215	37	36	50	7	22	41	28
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	171	15	26	241	41	40	56	8	25	46	31
Added Vol:	0	29	0	0	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	200	15	26	268	41	40	56	8	25	46	31
User 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
PHF 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
PHF Volume:	2	200	15	26	268	41	40	56	8	25	46	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	200	15	26	268	41	40	56	8	25	46	31
PCE 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
MLF 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
FinalVolume:	2	200	15	26	268	41	40	56	8	25	46	31

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.73	0.27	1.00	0.88	0.12	1.00	1.00	1.00
Final Sat.:	1600	1600	1600	1600	2771	429	1600	1404	196	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.13	0.01	0.02	0.10	0.10	0.03	0.04	0.04	0.02	0.03	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #27 Golden Shore Street at I-710 SB Off-Ramp
\*\*\*\*\*

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: A[ 9.7]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes. Rows include Golden Shore Street and I-710 SB Off-Ramp with various traffic details.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module table with columns for Critical Gp, FollowUpTim.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #28 Golden Shore Street at Shoreline Drive
\*\*\*\*\*

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[ 12.8]
\*\*\*\*\*

Table with columns for Street Name (Golden Shore Street, Shoreline Drive), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module: Table with columns for Critical Gap, FollowUpTim, and various performance metrics.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #29 Chestnut Place at Shoreline Drive
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.629
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name (Chestnut Place, Shoreline Drive), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include), and various traffic volume and timing metrics.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves values for each approach.

\*\*\*\*\*

PM Cumulative (Year 2020)
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #30 Pine Avenue at Shoreline Drive

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.525
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name: Pine Avenue Shoreline Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 2 0 3 0 1 1 0 3 0 1

Volume Module:
Base Vol: 21 22 43 94 33 71 80 981 32 25 194 63
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 24 25 48 105 37 80 90 1099 36 28 217 71
Added Vol: 0 0 0 0 0 27 29 14 0 0 14 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 25 48 105 37 107 119 1113 36 28 231 71
User 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
PHF 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
PHF Volume: 24 25 48 105 37 107 119 1113 36 28 231 71
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 25 48 105 37 107 119 1113 36 28 231 71
PCE 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
MLF 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
FinalVolume: 24 25 48 105 37 107 119 1113 36 28 231 71

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 1600 1600 1600 3200 4800 1600 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.07 0.02 0.07 0.04 0.23 0.02 0.02 0.05 0.04
Crit Moves: \*\*\*\* \* 0.02 0.05 0.04

\*\*\*\*\*

## YEAR 2020 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1 Magnolia Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.800  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Magnolia Avenue				7th Street																
North Bound		South Bound		East Bound		West Bound														
L	T	R	L	T	R	L	T	R	L	T	R									
Control: Permitted				Permitted				Split Phase				Split Phase								
Rights: Include				Include				Include				Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0

Volume Module:

Base Vol:	64	162	0	0	273	78	0	0	0	198	1257	80
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	72	181	0	0	306	87	0	0	0	222	1408	90
Added Vol:	0	93	0	0	63	0	0	0	0	39	15	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	274	0	0	369	87	0	0	0	261	1423	91
User 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
PHF 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
PHF Volume:	72	274	0	0	369	87	0	0	0	261	1423	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	274	0	0	369	87	0	0	0	261	1423	91
PCE 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
MLF 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
FinalVolume:	72	274	0	0	369	87	0	0	0	261	1423	91

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.44	2.41	0.15
Final Sat.:	1600	1600	0	0	1294	306	0	0	0	705	3849	245

Capacity Analysis Module:

Vol/Sat:	0.04	0.17	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.37	0.37	0.37
Crit Moves:	****				****					****		

\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #2 Pacific Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.744  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Pacific Avenue						7th Street					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	0	1	0	0	0	1	0	2

Volume Module:

Base Vol:	59	192	0	0	439	68	0	0	0	227	1352	117
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	66	215	0	0	492	76	0	0	0	254	1514	131
Added Vol:	0	107	0	0	69	0	0	0	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	322	0	0	561	76	0	0	0	254	1568	131
User 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
PHF 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
PHF Volume:	66	322	0	0	561	76	0	0	0	254	1568	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	322	0	0	561	76	0	0	0	254	1568	131
PCE 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
MLF 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
FinalVolume:	66	322	0	0	561	76	0	0	0	254	1568	131

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.76	0.24	0.00	0.00	0.00	1.00	2.77	0.23
Final Sat.:	1600	3200	0	0	2817	383	0	0	0	1600	4430	370

Capacity Analysis Module:

Vol/Sat:	0.04	0.10	0.00	0.00	0.20	0.20	0.00	0.00	0.00	0.16	0.35	0.35
Crit Moves:	****				****						****	

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #3 Pine Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.640  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Approach:	Pine Avenue						7th Street					
	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:												
Base Vol:	39	77	0	0	82	38	0	0	0	72	1650	78
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	44	86	0	0	92	43	0	0	0	81	1848	87
Added Vol:	5	57	0	0	35	0	0	0	0	2	49	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	143	0	0	127	43	0	0	0	83	1897	87
User 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
PHF 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
PHF Volume:	49	143	0	0	127	43	0	0	0	83	1897	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	143	0	0	127	43	0	0	0	83	1897	87
PCE 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
MLF 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
FinalVolume:	49	143	0	0	127	43	0	0	0	83	1897	87

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.12	2.75	0.13
Final Sat.:	1600	1600	0	0	1600	1600	0	0	0	192	4405	203

Capacity Analysis Module:												
Vol/Sat:	0.03	0.09	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.43	0.43	0.43
Crit Moves:	****				****							****

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #4 Long Beach Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D

Street Name:		Long Beach Boulevard						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Permitted			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	0	2	0	0	0	1	0	3	

Volume Module:												
Base Vol:	197	397	0	0	447	101	0	0	0	161	1444	118
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	221	445	0	0	501	113	0	0	0	180	1617	132
Added Vol:	0	131	0	0	83	0	0	0	0	0	51	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	576	0	0	584	113	0	0	0	180	1668	139
User 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
PHF 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
PHF Volume:	221	576	0	0	584	113	0	0	0	180	1668	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	576	0	0	584	113	0	0	0	180	1668	139
PCE 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
MLF 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
FinalVolume:	221	576	0	0	584	113	0	0	0	180	1668	139

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00	3.00	1.00
Final Sat.:	1600	3200	0	0	3200	1600	0	0	0	1600	4800	1600

Capacity Analysis Module:												
Vol/Sat:	0.14	0.18	0.00	0.00	0.18	0.07	0.00	0.00	0.00	0.11	0.35	0.09
Crit Moves:	****				****					****		

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #5 Atlantic Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.773  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Atlantic Avenue						7th Street									
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Split Phase			Split Phase						
Rights:	Include			Include			Include			Include						
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0

Volume Module:

Base Vol:	66	335	0	0	360	81	0	0	0	126	1652	121
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	74	375	0	0	403	91	0	0	0	141	1850	136
Added Vol:	0	82	0	0	56	0	0	0	0	0	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	457	0	0	459	91	0	0	0	141	1909	136
User 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
PHF 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
PHF Volume:	74	457	0	0	459	91	0	0	0	141	1909	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	457	0	0	459	91	0	0	0	141	1909	136
PCE 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
MLF 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
FinalVolume:	74	457	0	0	459	91	0	0	0	141	1909	136

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	1.72	0.00	0.00	1.67	0.33	0.00	0.00	0.00	0.19	2.62	0.19
Final Sat.:	445	2755	0	0	2672	528	0	0	0	310	4193	298

Capacity Analysis Module:

Vol/Sat:	0.05	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.46	0.46	0.46
Crit Moves:	****				****					****		

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #6 Martin Luther King Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.321  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A

\*\*\*\*\*

Street Name: Martin Luther King Boulevard						7th Street					
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Permitted			Permitted			Split Phase			Split Phase		
Rights: Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	2	1	0	0	1	0	0

\*\*\*\*\*

Volume Module:

Base Vol:	75	141	362	135	61	118	0	0	0	0	1687	36
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	84	158	405	151	68	132	0	0	0	0	1889	40
Added Vol:	0	21	0	0	14	0	0	0	0	0	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	179	405	151	82	132	0	0	0	0	1948	40
User 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
PHF 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
PHF Volume:	84	179	405	151	82	132	0	0	0	0	1948	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	179	405	151	82	132	0	0	0	0	1948	40
PCE 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
MLF 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
FinalVolume:	84	179	405	151	82	132	0	0	0	0	1948	40
OvlAdjVol:	0											

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	0.38	0.62	0.00	0.00	0.00	0.00	1.96	0.04
Final Sat.:	1600	1600	3200	1600	614	986	0	0	0	0	3135	65

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.05	0.11	0.13	0.09	0.13	0.13	0.00	0.00	0.00	0.00	0.62	0.62
OvlAdjV/S:	0.00											
Crit Moves:	****			****			****					

\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #7 Alamitos Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.993  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Street Name: Alamitos Boulevard						7th Street					
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Permitted			Permitted			Permitted			Protected		
Rights: Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	68	350	104	58	437	126	51	477	9	234	1554	56
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	76	392	116	65	489	141	57	534	10	262	1740	63
Added Vol:	0	75	98	0	51	0	0	0	0	32	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	467	214	65	540	141	57	534	10	294	1799	63
User 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
PHF 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
PHF Volume:	76	467	214	65	540	141	57	534	10	294	1799	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	467	214	65	540	141	57	534	10	294	1799	63
PCE 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
MLF 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
FinalVolume:	76	467	214	65	540	141	57	534	10	294	1799	63

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	1.96	0.04	1.00	1.93	0.07
Final Sat.:	1600	3200	1600	1600	2537	663	1600	3141	59	1600	3092	108

Capacity Analysis Module:

Vol/Sat:	0.05	0.15	0.13	0.04	0.21	0.21	0.04	0.17	0.17	0.18	0.58	0.58
Crit Moves:	****				****					****		

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #8 Magnolia Avenue at 6th Street
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.587
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A
\*\*\*\*\*

Table with columns for Street Name (Magnolia Avenue, 6th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Split Phase), Rights (Include), and various traffic volume and timing parameters.

Volume Module: Table showing traffic volume adjustments including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing Sat/Lane, Adjustment, Lanes, and Final Sat values for each approach.

Capacity Analysis Module: Table showing Vol/Sat and Crit Moves for each approach.

\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #9 Magnolia Avenue at 5th Street  
 \*\*\*\*\*

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[ 17.2]  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						5th Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	5	193	4	10	430	29	6	3	22	8	3	10
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	6	216	4	11	482	32	7	3	25	9	3	11
Added Vol:	0	140	0	0	102	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	356	4	11	584	32	7	3	25	9	3	11
User 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
PHF 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
PHF Volume:	6	356	4	11	584	32	7	3	25	9	3	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	356	4	11	584	32	7	3	25	9	3	11

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	616	xxxx	xxxxxx	361	xxxx	xxxxxx	999	994	600	1006	1008	358
Potent Cap.:	974	xxxx	xxxxxx	1209	xxxx	xxxxxx	224	247	505	222	242	690
Move Cap.:	974	xxxx	xxxxxx	1209	xxxx	xxxxxx	216	243	505	206	239	690
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.03	0.01	0.05	0.04	0.01	0.02

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	8.7	xxxx	xxxxxx	8.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	370	xxxxxx	xxxx	319	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	0.2	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	15.7	xxxxxx	xxxxxx	17.2	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx				15.7			17.2	
ApproachLOS:	*			*				C			C	

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #10 Alamitos Boulevard at 4th Street
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.821
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Alamitos Boulevard, 4th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #11 Magnolia Avenue at 3rd Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

Street Name: Magnolia Avenue				3rd Street				
Approach: North Bound		South Bound		East Bound		West Bound		
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	
Control:	Protected		Permitted		Split Phase		Split Phase	
Rights:	Include		Include		Include		Include	
Min. Green:	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	0	0	0

Volume Module:												
Base Vol:	45	104	0	0	358	107	0	0	0	155	1095	88
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	50	116	0	0	401	120	0	0	0	174	1226	99
Added Vol:	18	110	0	0	92	5	0	0	0	12	187	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	226	0	0	493	125	0	0	0	186	1413	126
User 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
PHF 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
PHF Volume:	68	226	0	0	493	125	0	0	0	186	1413	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	226	0	0	493	125	0	0	0	186	1413	126
PCE 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
MLF 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
FinalVolume:	68	226	0	0	493	125	0	0	0	186	1413	126

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.60	0.40	0.00	0.00	0.00	0.32	2.46	0.22
Final Sat.:	1600	1600	0	0	2553	647	0	0	0	517	3934	349

Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.36	0.36	0.36
Crit Moves:	****				****					****		

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #12 Magnolia Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.579  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						Broadway Avenue													
	North Bound			South Bound			East Bound			West Bound										
Approach:	L - T - R			L - T - R			L - T - R			L - T - R										
Control:	Permitted			Permitted			Split Phase			Split Phase										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	2	0	1	0	1	1	0	0	0	1	2	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	107	140	106	387	0	33	840	347	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	120	157	119	433	0	37	941	389	0	0	0
Added Vol:	0	127	1	9	95	0	1	121	50	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	247	158	128	528	0	38	1062	439	0	0	0
User 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
PHF 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
PHF Volume:	0	247	158	128	528	0	38	1062	439	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	247	158	128	528	0	38	1062	439	0	0	0
PCE 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
MLF 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
FinalVolume:	0	247	158	128	528	0	38	1062	439	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.39	1.61	0.00	0.10	2.90	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	623	2577	0	166	4634	1600	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.10	0.08	0.21	0.00	0.23	0.23	0.27	0.00	0.00	0.00
Crit Moves:	****			****			****					

AM Cumulative (2020) + Project  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #13 Pacific Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.571  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Pacific Avenue						Broadway Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	0	189	58	70	442	0	43	627	274	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	212	65	78	495	0	48	702	307	0	0	0
Added Vol:	0	49	0	30	30	0	21	148	6	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	261	65	108	525	0	69	850	313	0	0	0
User 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
PHF 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
PHF Volume:	0	261	65	108	525	0	69	850	313	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	261	65	108	525	0	69	850	313	0	0	0
PCE 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
MLF 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
FinalVolume:	0	261	65	108	525	0	69	850	313	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.17	2.07	0.76	0.00	0.00	0.00
Final Sat.:	0	3200	1600	1600	3200	0	269	3312	1219	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.04	0.07	0.16	0.00	0.26	0.26	0.26	0.00	0.00	0.00
Crit Moves:					****				****			

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #14 Pine Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.472  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Pine Avenue						Broadway Avenue													
	North Bound			South Bound			East Bound			West Bound										
Approach:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Permitted						Permitted						Split Phase			Split Phase				
Rights:	Include						Include						Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	0	0	0	1	0	1	0	1	0	0	1	0	2	1	0	0	0	0	0	0

Volume Module:

Base Vol:	0	59	42	49	236	0	39	571	138	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	66	47	55	264	0	44	640	155	0	0	0
Added Vol:	0	21	0	37	14	0	22	156	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	87	47	92	278	0	66	796	155	0	0	0
User 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
PHF 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
PHF Volume:	0	87	47	92	278	0	66	796	155	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	87	47	92	278	0	66	796	155	0	0	0
PCE 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
MLF 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
FinalVolume:	0	87	47	92	278	0	66	796	155	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.65	0.35	1.00	1.00	0.00	1.00	2.51	0.49	0.00	0.00	0.00
Final Sat.:	0	1039	561	1600	1600	0	1600	4019	781	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.08	0.08	0.06	0.17	0.00	0.04	0.20	0.20	0.00	0.00	0.00
Crit Moves:	****			****			****					

\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #15 Alamitos Boulevard at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.910  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 112 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Alamitos Boulevard						Broadway Avenue													
	North Bound			South Bound			East Bound			West Bound										
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Permitted			Permitted			Protected			Prot+Permit										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	1	1	0	1	0	1	0	0	2	0	2	0	1	1	0	0	0	1

Volume Module:

Base Vol:	0	405	39	29	473	0	123	238	34	406	0	425
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	454	44	32	530	0	138	267	38	455	0	476
Added Vol:	0	120	0	0	82	0	11	32	15	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	574	44	32	612	0	149	299	53	455	0	476
User 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
PHF 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
PHF Volume:	0	574	44	32	612	0	149	299	53	455	0	476
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	574	44	32	612	0	149	299	53	455	0	476
PCE 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
MLF 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
FinalVolume:	0	574	44	32	612	0	149	299	53	455	0	476

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.86	0.14	1.00	1.00	0.00	2.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	2974	226	1600	1600	0	3200	3200	1600	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.19	0.02	0.38	0.00	0.05	0.09	0.03	0.28	0.00	0.30
Crit Moves:	****			****			****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
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Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound movements and their respective traffic control details.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows list various traffic volume and adjustment factors.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows show saturation flow rates and adjustments for different movements.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves. Rows show volume-to-saturation ratios and critical movement indicators.

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #17 Magnolia Avenue at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.001
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name (Magnolia Avenue, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #18 Chestnut Place at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.709
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Chestnut Place, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each movement.

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #19 Pacific Avenue at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.809  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Pacific Avenue						Ocean Boulevard													
	North Bound			South Bound			East Bound			West Bound										
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit										
Rights:	Include			Ovl			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	1	0	0	2	0	0	0	1	1	0	2	1	0	1	0	3	0	1

Volume Module:

Base Vol:	3	2	3	86	0	289	166	655	7	25	1853	157
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	3	2	3	96	0	324	186	734	8	28	2075	176
Added Vol:	0	0	0	17	0	18	29	139	0	0	196	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	2	3	113	0	342	215	873	8	28	2271	195
User 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
PHF 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
PHF Volume:	3	2	3	113	0	342	215	873	8	28	2271	195
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	2	3	113	0	342	215	873	8	28	2271	195
PCE 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
MLF 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
FinalVolume:	3	2	3	113	0	342	215	873	8	28	2271	195
OvlAdjVol:							127					

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.37	0.25	0.38	2.00	0.00	1.00	1.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	600	400	600	3200	0	1600	1600	4757	43	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.01	0.01	0.04	0.00	0.21	0.13	0.18	0.18	0.02	0.47	0.12
OvlAdjV/S:							0.08					
Crit Moves:	****			****			****			****		

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #20 Pine Avenue at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.747  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Pine Avenue						Ocean Boulevard					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L - T - R			L - T - R			L - T - R			L - T - R		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	1	0	3

Volume Module:												
Base Vol:	36	24	19	27	65	65	34	672	74	95	2075	96
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	27	21	30	73	73	38	753	83	106	2324	108
Added Vol:	4	4	15	2	5	7	12	159	5	39	168	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	31	36	32	78	80	50	912	88	145	2492	114
User 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
PHF 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
PHF Volume:	44	31	36	32	78	80	50	912	88	145	2492	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	31	36	32	78	80	50	912	88	145	2492	114
PCE 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
MLF 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
FinalVolume:	44	31	36	32	78	80	50	912	88	145	2492	114

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.29	0.71	1.00	1.00	2.74	0.26	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	469	1131	1600	1600	4378	422	1600	4800	1600

Capacity Analysis Module:												
Vol/Sat:	0.03	0.02	0.02	0.02	0.07	0.05	0.03	0.21	0.21	0.09	0.52	0.07
Crit Moves:	****				****		****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #21 Long Beach Boulevard at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.877  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 94 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Long Beach Boulevard						Ocean Boulevard					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	1	0	3	0	0	3

Volume Module:

Base Vol:	0	0	0	98	0	254	127	586	0	0	2108	80
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	110	0	284	142	656	0	0	2361	90
Added Vol:	0	0	0	1	0	44	61	114	0	0	169	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	111	0	328	203	770	0	0	2530	95
User 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
PHF 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
PHF Volume:	0	0	0	111	0	328	203	770	0	0	2530	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	111	0	328	203	770	0	0	2530	95
PCE 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
MLF 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
FinalVolume:	0	0	0	111	0	328	203	770	0	0	2530	95

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	0	0	0	1600	0	3200	1600	4800	0	0	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.10	0.13	0.16	0.00	0.00	0.53	0.06
Crit Moves:						****	****			****		

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #22 Atlantic Avenue at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.797  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Atlantic Avenue						Ocean Boulevard														
	North Bound			South Bound			East Bound			West Bound											
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	T	R	L	T	R	L	T	R	L	T	R									
Control:	Permitted			Permitted			Permitted			Permitted											
Rights:	Include			Include			Include			Include											
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0									
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Lanes:	0	1	0	0	0	0	0	1	0	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	3	1	0	43	1	109	71	665	1	0	2024	72
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	3	1	0	48	1	122	80	745	1	0	2267	81
Added Vol:	0	0	0	4	0	33	45	71	0	0	141	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	1	0	52	1	155	125	816	1	0	2408	87
User 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
PHF 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
PHF Volume:	3	1	0	52	1	155	125	816	1	0	2408	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	1	0	52	1	155	125	816	1	0	2408	87
PCE 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
MLF 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
FinalVolume:	3	1	0	52	1	155	125	816	1	0	2408	87

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.75	0.25	0.00	0.98	0.02	1.00	1.00	2.99	0.01	1.00	2.90	0.10
Final Sat.:	1200	400	0	1566	34	1600	1600	4793	7	1600	4633	167

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.03	0.03	0.10	0.08	0.17	0.17	0.00	0.52	0.52
Crit Moves:	****					****	****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #23 Shoreline Drive/Alamitos Boulevard at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.267
Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include North Bound, South Bound, East Bound, West Bound for Shoreline Drive/Alamitos Boulevard and Ocean Boulevard.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows include Shoreline Drive/Alamitos Boulevard and Ocean Boulevard.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Shoreline Drive/Alamitos Boulevard and Ocean Boulevard.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves. Rows include Shoreline Drive/Alamitos Boulevard and Ocean Boulevard.

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #24 Golden Shore Street at Seaside Way (2)
\*\*\*\*\*

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: C[ 15.8]
\*\*\*\*\*

Table with columns for Street Name (Golden Shore Street, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (1, 0, 1, 1, 0).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume across 12 lanes.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim across 12 lanes.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap across 12 lanes.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS across 12 lanes.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #25 Chestnut Place at Seaside Way  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.289  
 Loss Time (sec): 0 Average Delay (sec/veh): 9.7  
 Optimal Cycle: 0 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Chestnut Place						Seaside Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:	Chestnut Place			Chestnut Place			Seaside Way			Seaside Way		
Base Vol:	95	61	13	8	50	38	14	35	1	45	58	27
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	106	68	15	9	56	43	16	39	1	50	65	30
Added Vol:	61	0	0	0	0	17	65	0	28	0	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	68	15	9	56	60	81	39	29	50	84	30
User 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
PHF 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
PHF Volume:	167	68	15	9	56	60	81	39	29	50	84	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	68	15	9	56	60	81	39	29	50	84	30
PCE 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
MLF 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
FinalVolume:	167	68	15	9	56	60	81	39	29	50	84	30

Saturation Flow Module:	Chestnut Place			Chestnut Place			Seaside Way			Seaside Way		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	0.48	0.52	0.67	0.33	1.00	0.61	1.02	0.37
Final Sat.:	580	530	113	557	312	332	383	186	678	351	620	231

Capacity Analysis Module:	Chestnut Place			Chestnut Place			Seaside Way			Seaside Way		
Vol/Sat:	0.29	0.13	0.13	0.02	0.18	0.18	0.21	0.21	0.04	0.14	0.14	0.13
Crit Moves:	****			****			****			****		
Delay/Veh:	11.0	8.8	8.8	9.0	9.1	9.1	10.3	10.3	7.9	9.6	9.2	8.9
Delay 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
AdjDel/Veh:	11.0	8.8	8.8	9.0	9.1	9.1	10.3	10.3	7.9	9.6	9.2	8.9
LOS by Move:	B	A	A	A	A	A	B	B	A	A	A	A
ApproachDel:	10.3			9.1			9.8			9.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			9.1			9.8			9.3		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	0.4	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.0	0.2	0.1	0.1

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #26 Pine Avenue at Seaside Way
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.290
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: A
\*\*\*\*\*

Table with columns for Street Name (Pine Avenue, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat and Crit Moves.

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #27 Golden Shore Street at I-710 SB Off-Ramp  
 \*\*\*\*\*

Average Delay (sec/veh): 10.7 Worst Case Level Of Service: C[ 16.1]  
 \*\*\*\*\*

Street Name:	Golden Shore Street						I-710 SB Off-Ramp									
Approach:	North Bound		South Bound		East Bound		West Bound									
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign									
Rights:	Include		Include		Include		Include									
Lanes:	0	0	2	0	0	0	0	1	0	0	1	0	0	0	0	0

Volume Module:												
Base Vol:	0	84	0	0	181	0	314	0	244	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	94	0	0	203	0	352	0	273	0	0	0
Added Vol:	0	0	0	0	60	0	79	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	94	0	0	263	0	431	0	273	0	0	0
User 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
PHF 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
PHF Volume:	0	94	0	0	263	0	431	0	273	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	94	0	0	263	0	431	0	273	0	0	0

Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:												
Cnflct Vol:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	310	xxxx	263	xxxx	xxxx	xxxxxx
Potent Cap.:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	687	xxxx	781	xxxx	xxxx	xxxxxx
Move Cap.:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	687	xxxx	781	xxxx	xxxx	xxxxxx
Volume/Cap:	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.63	xxxx	0.35	xxxx	xxxx	xxxx

Level Of Service Module:												
2Way95thQ:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.4	xxxx	1.6	xxxx	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	18.6	xxxx	12.1	xxxxxx	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	C	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			16.1			xxxxxx		
ApproachLOS:	*			*			C			*		

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #28 Golden Shore Street at Shoreline Drive
\*\*\*\*\*

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[ 13.8]

Table with columns for Street Name (Golden Shore Street, Shoreline Drive), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume, with values for each approach and movement.

Critical Gap Module table with columns for Critical Gp and FollowUpTim, showing values and 'xxxxx' placeholders for each approach and movement.

Capacity Module table with columns for Conflict Vol, Potent Cap., Move Cap., and Volume/Cap, showing values and 'xxxxx' placeholders for each approach and movement.

Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS, showing values and 'xxxxx' placeholders.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #29 Chestnut Place at Shoreline Drive  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.401  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Chestnut Place						Shoreline Drive													
	North Bound			South Bound			East Bound			West Bound										
Approach:	L - T - R			L - T - R			L - T - R			L - T - R										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	1	1	0	0	1	0	1	0	0	1	2	0	3	0	1	2	0	3	1	0

Volume Module:

Base Vol:	1	0	32	8	2	84	56	188	14	144	270	117
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	1	0	36	9	2	94	63	211	16	161	302	131
Added Vol:	0	0	0	28	0	0	0	116	38	0	41	61
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	0	36	37	2	94	63	327	54	161	343	192
User 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
PHF 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
PHF Volume:	1	0	36	37	2	94	63	327	54	161	343	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	36	37	2	94	63	327	54	161	343	192
PCE 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
MLF 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
FinalVolume:	1	0	36	37	2	94	63	327	54	161	343	192

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.94	0.06	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	0	1600	1509	91	1600	3200	4800	1600	3200	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.02	0.02	0.02	0.06	0.02	0.07	0.03	0.05	0.07	0.12
Crit Moves:			****			****	****					****

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #30 Pine Avenue at Shoreline Drive  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.415  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Pine Avenue						Shoreline Drive					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	2	0	3	0	1	1

Volume Module:

Base Vol:	9	5	11	22	8	39	83	135	7	11	559	36
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	10	6	12	25	9	44	93	151	8	12	626	40
Added Vol:	0	0	0	0	0	31	22	99	0	0	76	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	6	12	25	9	75	115	250	8	12	702	40
User 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
PHF 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
PHF Volume:	10	6	12	25	9	75	115	250	8	12	702	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	6	12	25	9	75	115	250	8	12	702	40
PCE 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
MLF 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
FinalVolume:	10	6	12	25	9	75	115	250	8	12	702	40

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	3200	4800	1600	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.01	0.02	0.01	0.05	0.04	0.05	0.00	0.01	0.15	0.03
Crit Moves:	****					****	****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project  
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 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #90 Golden Shore at Driveway A  
 \*\*\*\*\*

Average Delay (sec/veh): 34.2 Worst Case Level Of Service: F[149.9]  
 \*\*\*\*\*

Street Name:	Golden Shore					Driveway A														
	North Bound			South Bound		East Bound			West Bound											
Approach:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled					Uncontrolled		Stop Sign			Stop Sign									
Rights:	Include					Include		Include			Include									
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1

Volume Module:

Base Vol:	0	194	0	0	277	0	0	0	0	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	217	0	0	310	0	0	0	0	0	0	0
Added Vol:	180	3	-18	-7	-63	196	205	0	65	0	0	69
PasserByVol:	0	0	11	14	63	0	0	0	0	0	0	0
Initial Fut:	180	220	-7	7	310	196	205	0	65	0	0	69
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	180	220	0	7	310	196	205	0	65	0	0	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	180	220	0	7	310	196	205	0	65	0	0	69

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	xxxxxx	xxxx	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	3.3

Capacity Module:

Cnflct Vol:	506	xxxx	xxxxxx	220	xxxx	xxxxxx	892	1003	253	xxxx	xxxx	110
Potent Cap.:	1069	xxxx	xxxxxx	1361	xxxx	xxxxxx	240	244	752	xxxx	xxxx	929
Move Cap.:	1069	xxxx	xxxxxx	1361	xxxx	xxxxxx	192	202	752	xxxx	xxxx	929
Volume/Cap:	0.17	xxxx	xxxx	0.01	xxxx	xxxx	1.07	0.00	0.09	xxxx	xxxx	0.07

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	0.2
Control Del:	9.0	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.2
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	A
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	234	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	12.5	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	150	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx								9.2
ApproachLOS:	*			*				F			*	A

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #91 Driveway B at Seaside Way  
 \*\*\*\*\*

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[ 11.2]  
 \*\*\*\*\*

Street Name:	Driveway B						Seaside Way					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	1	0	0	1

Volume Module:	Driveway B			Driveway B			Seaside Way			Seaside Way		
Base Vol:	0	0	0	0	0	0	0	320	0	0	92	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	0	0	0	0	358	0	0	103	0
Added Vol:	0	0	0	48	0	21	-8	0	0	0	0	-21
PasserByVol:	0	0	0	0	0	0	8	0	0	0	0	21
Initial Fut:	0	0	0	48	0	21	0	358	0	0	103	0
User 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
PHF 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
PHF Volume:	0	0	0	48	0	21	0	358	0	0	103	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	48	0	21	0	358	0	0	103	0

Critical Gap Module:	Driveway B			Driveway B			Seaside Way			Seaside Way		
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:	Driveway B			Driveway B			Seaside Way			Seaside Way		
Cnflct Vol:	xxxx	xxxx	xxxxx	461	461	52	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	562	500	1022	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	562	500	1022	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	0.00	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:	Driveway B			Driveway B			Seaside Way			Seaside Way		
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	651	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			11.2			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #92 Driveway C at Seaside Way

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: B[ 11.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Driveway C/Seaside Way. Includes data for North Bound, South Bound, East Bound, and West Bound.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for each approach.

Critical Gap Module table showing Critical Gp and FollowUpTim for each approach.

Capacity Module table showing Cnflict Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Level Of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1 Magnolia Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.708  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C  
 \*\*\*\*\*

Street Name: Magnolia Avenue				7th Street			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement: L - T - R		L - T - R		L - T - R		L - T - R	
Control: Permitted		Permitted		Split Phase		Split Phase	
Rights: Include		Include		Include		Include	
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1 0 0	0 0 0 1 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 1 1 1 0	0 1 1 1 0

Volume Module:

Base Vol:	102 350 0	0 310 61	0 0 0	99 654 114
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	114 392 0	0 347 68	0 0 0	111 732 128
Added Vol:	0 84 0	0 100 0	0 0 0	46 13 1
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	114 476 0	0 447 68	0 0 0	157 745 129
User 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
PHF 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
PHF Volume:	114 476 0	0 447 68	0 0 0	157 745 129
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	114 476 0	0 447 68	0 0 0	157 745 129
PCE 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
MLF 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
FinalVolume:	114 476 0	0 447 68	0 0 0	157 745 129

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.00 1.00 0.00	0.00 0.87 0.13	0.00 0.00 0.00	0.46 2.17 0.37
Final Sat.:	1600 1600 0	0 1388 212	0 0 0	730 3471 599

Capacity Analysis Module:

Vol/Sat:	0.07 0.30 0.00	0.00 0.32 0.32	0.00 0.00 0.00	0.21 0.21 0.21
Crit Moves:	****	****		****

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #2 Pacific Avenue at 7th Street
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.606
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name (Pacific Avenue, 7th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Split Phase), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. across different approaches.

Capacity Analysis Module: Table showing capacity analysis metrics like Vol/Sat and Crit Moves across different approaches.

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #3 Pine Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.551  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:		Pine Avenue						7th Street					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	0	0	1	0	0	1	0	1	0	

Volume Module:												
Base Vol:	79	194	0	0	133	59	0	0	0	82	866	107
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	88	217	0	0	149	66	0	0	0	92	970	120
Added Vol:	9	49	0	0	64	0	0	0	0	3	51	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	266	0	0	213	66	0	0	0	95	1021	120
User 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
PHF 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
PHF Volume:	97	266	0	0	213	66	0	0	0	95	1021	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	266	0	0	213	66	0	0	0	95	1021	120
PCE 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
MLF 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
Final Volume:	97	266	0	0	213	66	0	0	0	95	1021	120

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.23	2.48	0.29
Final Sat.:	1600	1600	0	0	1600	1600	0	0	0	368	3966	466

Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.00	0.00	0.13	0.04	0.00	0.00	0.00	0.26	0.26	0.26
Crit Moves:	****				****					****		

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PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #4 Long Beach Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.633  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Street Name: Long Beach Boulevard				7th Street			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement: L - T - R		L - T - R		L - T - R		L - T - R	
Control: Protected		Permitted		Split Phase		Split Phase	
Rights: Include		Include		Include		Include	
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 0 0	0 0 2 0 1	0 0 0 0 0	0 0 0 0 0	1 0 3 0 1		

Volume Module:

Base Vol:	160 517 0	0 382 85	0 0 0	145 778 79
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	179 579 0	0 428 95	0 0 0	162 871 88
Added Vol:	0 112 0	0 142 0	0 0 0	0 53 13
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	179 691 0	0 570 95	0 0 0	162 924 101
User 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
PHF 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
PHF Volume:	179 691 0	0 570 95	0 0 0	162 924 101
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	179 691 0	0 570 95	0 0 0	162 924 101
PCE 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
MLF 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
FinalVolume:	179 691 0	0 570 95	0 0 0	162 924 101

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.00 2.00 0.00	0.00 2.00 1.00	0.00 0.00 0.00	1.00 3.00 1.00
Final Sat.:	1600 3200 0	0 3200 1600	0 0 0	1600 4800 1600

Capacity Analysis Module:

Vol/Sat:	0.11 0.22 0.00	0.00 0.18 0.06	0.00 0.00 0.00	0.10 0.19 0.06
Crit Moves:	****	****		****

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #5 Atlantic Avenue at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.562  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name: Atlantic Avenue				7th Street			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement: L - T - R		L - T - R		L - T - R		L - T - R	
Control: Permitted		Permitted		Split Phase		Split Phase	
Rights: Include		Include		Include		Include	
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 1 1 0 0	0 0 1 1 0	0 0 0 0 0	0 0 0 0 0	0 1 1 1 0	0 1 1 1 0	0 1 1 1 0

Volume Module:

Base Vol:	39 436 0	0 365 72	0 0 0	84 819 127
Growth Adj:	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12	1.12 1.12 1.12
Initial Bse:	44 488 0	0 409 81	0 0 0	94 917 142
Added Vol:	0 72 0	0 87 0	0 0 0	0 66 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	44 560 0	0 496 81	0 0 0	94 983 142
User 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
PHF 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
PHF Volume:	44 560 0	0 496 81	0 0 0	94 983 142
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	44 560 0	0 496 81	0 0 0	94 983 142
PCE 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
MLF 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
FinalVolume:	44 560 0	0 496 81	0 0 0	94 983 142

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.14 1.86 0.00	0.00 1.72 0.28	0.00 0.00 0.00	0.23 2.42 0.35
Final Sat.:	231 2969 0	0 2752 448	0 0 0	370 3870 560

Capacity Analysis Module:

Vol/Sat:	0.03 0.19 0.00	0.00 0.18 0.18	0.00 0.00 0.00	0.25 0.25 0.25
Crit Moves:	****	****	****	****

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #6 Martin Luther King Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.519  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name: Martin Luther King Boulevard			7th Street								
Approach: North Bound			South Bound			East Bound			West Bound		
Movement: L - T - R			L - T - R			L - T - R			L - T - R		
Control: Permitted			Permitted			Split Phase			Split Phase		
Rights: Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	2	1	0	0	1	0	0

Volume Module:

Base Vol:	37	112	978	110	65	65	0	0	0	0	904	62
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	41	125	1095	123	73	73	0	0	0	0	1012	69
Added Vol:	0	18	0	0	24	0	0	0	0	0	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	143	1095	123	97	73	0	0	0	0	1078	69
User 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
PHF 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
PHF Volume:	41	143	1095	123	97	73	0	0	0	0	1078	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	143	1095	123	97	73	0	0	0	0	1078	69
PCE 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
MLF 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
FinalVolume:	41	143	1095	123	97	73	0	0	0	0	1078	69
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	2.00	1.00	0.57	0.43	0.00	0.00	0.00	0.00	1.88	0.12
Final Sat.:	1600	1600	3200	1600	913	687	0	0	0	0	3006	194

Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.34	0.08	0.11	0.11	0.00	0.00	0.00	0.00	0.36	0.36
OvlAdjV/S:	0.00											
Crit Moves:	****			****						****		

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #7 Alamitos Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 100 Level Of Service: D  
 \*\*\*\*\*

Street Name: Alamitos Boulevard				7th Street			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted	Protected	Protected	Protected
Rights:	Ovl	Include	Include	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 0 1	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0

Volume Module:

Base Vol:	71	505	232	69	340	99	68	955	9	133	791	57
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	80	566	260	77	381	111	76	1070	10	149	886	64
Added Vol:	0	64	98	0	76	0	0	0	0	45	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	630	358	77	457	111	76	1070	10	194	952	64
User 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
PHF 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
PHF Volume:	80	630	358	77	457	111	76	1070	10	194	952	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	630	358	77	457	111	76	1070	10	194	952	64
PCE 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
MLF 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
FinalVolume:	80	630	358	77	457	111	76	1070	10	194	952	64

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.61	0.39	1.00	1.98	0.02	1.00	1.87	0.13
Final Sat.:	1600	3200	1600	1600	2575	625	1600	3170	30	1600	2999	201

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.22	0.05	0.18	0.18	0.05	0.34	0.34	0.12	0.32	0.32
Crit Moves:			****	****				****		****		

\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #8 Magnolia Avenue at 6th Street
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.863
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Magnolia Avenue, 6th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Split Phase), Rights (Include), and various traffic volume and timing parameters.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each movement.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat for each movement.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each movement.

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #9 Magnolia Avenue at 5th Street
\*\*\*\*\*

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: D[ 29.6]

Table with columns for Street Name (Magnolia Avenue, 5th Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (1, 0, 0, 1, 0).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and values for different approaches.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #10 Alamitos Boulevard at 4th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 1.021  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Street Name:		Alamitos Boulevard						4th Street													
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Permitted			Permitted			Permitted			Permitted			Permitted			Permitted					
Rights:	Include			Include			Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	

Volume Module:

Base Vol:	43	977	183	174	465	43	56	423	22	62	272	45
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	48	1094	205	195	521	48	63	474	25	69	305	50
Added Vol:	0	111	0	0	137	7	12	6	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	1205	205	195	658	55	75	480	25	69	313	50
User 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
PHF 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
PHF Volume:	48	1205	205	195	658	55	75	480	25	69	313	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1205	205	195	658	55	75	480	25	69	313	50
PCE 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
MLF 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
FinalVolume:	48	1205	205	195	658	55	75	480	25	69	313	50

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	0.92	0.08	1.00	0.95	0.05	1.00	0.86	0.14
Final Sat.:	1600	2735	465	1600	1476	124	1600	1522	78	1600	1378	222

Capacity Analysis Module:

Vol/Sat:	0.03	0.44	0.44	0.12	0.45	0.45	0.05	0.32	0.32	0.04	0.23	0.23
Crit Moves:	****			****			****			****		

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #11 Magnolia Avenue at 3rd Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.695  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						3rd Street					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:												
Base Vol:	79	346	0	0	254	58	0	0	0	98	694	68
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	88	388	0	0	284	65	0	0	0	110	777	76
Added Vol:	27	106	0	0	121	2	0	0	0	3	149	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	494	0	0	405	67	0	0	0	113	926	98
User 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
PHF 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
PHF Volume:	115	494	0	0	405	67	0	0	0	113	926	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	494	0	0	405	67	0	0	0	113	926	98
PCE 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
MLF 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
FinalVolume:	115	494	0	0	405	67	0	0	0	113	926	98

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	1.72	0.28	0.00	0.00	0.00	0.30	2.44	0.26
Final Sat.:	1600	1600	0	0	2746	454	0	0	0	476	3910	414

Capacity Analysis Module:												
Vol/Sat:	0.07	0.31	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.24	0.24	0.24
Crit Moves:	****									****		

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #12 Magnolia Avenue at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.612  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						Broadway Avenue													
	North Bound			South Bound			East Bound			West Bound										
Approach:	L - T - R			L - T - R			L - T - R			L - T - R										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Permitted			Permitted			Split Phase			Split Phase										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	2	0	1	0	1	1	0	0	0	1	2	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	323	69	58	279	0	90	988	176	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	362	77	65	312	0	101	1107	197	0	0	0
Added Vol:	0	128	11	13	111	0	6	276	112	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	490	88	78	423	0	107	1383	309	0	0	0
User 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
PHF 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
PHF Volume:	0	490	88	78	423	0	107	1383	309	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	490	88	78	423	0	107	1383	309	0	0	0
PCE 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
MLF 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
FinalVolume:	0	490	88	78	423	0	107	1383	309	0	0	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.31	1.69	0.00	0.22	2.78	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	1600	498	2702	0	344	4456	1600	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.06	0.05	0.16	0.00	0.31	0.31	0.19	0.00	0.00	0.00
Crit Moves:	****			****			****					

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PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #13 Pacific Avenue at Broadway Avenue
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: C
\*\*\*\*\*

Table with columns for Street Name (Pacific Avenue, Broadway Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #14 Pine Avenue at Broadway Avenue
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D
\*\*\*\*\*

Table with columns for Street Name (Pine Avenue, Broadway Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #15 Alamitos Boulevard at Broadway Avenue  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.832  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Alamitos Boulevard						Broadway Avenue													
	North Bound			South Bound			East Bound			West Bound										
Approach:	L - T - R		L - T - R		L - T - R		L - T - R		L - T - R		L - T - R									
Control:	Permitted			Permitted			Protected			Prot+Permit										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	1	1	0	1	0	1	0	0	2	0	2	0	1	1	0	0	0	1

Volume Module:

Base Vol:	0	839	37	58	404	0	550	550	117	118	0	153
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	940	41	65	452	0	616	616	131	132	0	171
Added Vol:	0	101	0	0	115	0	11	52	56	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1041	41	65	567	0	627	668	187	132	0	171
User 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
PHF 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
PHF Volume:	0	1041	41	65	567	0	627	668	187	132	0	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1041	41	65	567	0	627	668	187	132	0	171
PCE 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
MLF 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
FinalVolume:	0	1041	41	65	567	0	627	668	187	132	0	171

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.92	0.08	1.00	1.00	0.00	2.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	3077	123	1600	1600	0	3200	3200	1600	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.04	0.35	0.00	0.20	0.21	0.12	0.08	0.00	0.11
Crit Moves:	****			****			****			****		

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.898
Loss Time (sec): 15 Average Delay (sec/veh): xxxxxxxx
Optimal Cycle: 180 Level of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Golden Shore Street/Golden Avenue and Ocean Boulevard with sub-rows for North, South, East, and West bounds.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows include Golden Shore Street/Golden Avenue and Ocean Boulevard.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Golden Shore Street/Golden Avenue and Ocean Boulevard.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves. Rows include Golden Shore Street/Golden Avenue and Ocean Boulevard.

\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Magnolia Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.880
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 91 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Magnolia Avenue, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table showing saturation flow metrics such as Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table showing capacity analysis metrics such as Vol/Sat and Crit Moves.

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #18 Chestnut Place at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Chestnut Place						Ocean Boulevard					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	3

Volume Module:												
Base Vol:	40	0	79	0	0	0	0	2129	29	56	1238	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	45	0	88	0	0	0	0	2384	32	63	1387	0
Added Vol:	20	0	73	0	0	0	0	123	35	44	159	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	0	161	0	0	0	0	2507	67	107	1546	0
User 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
PHF 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
PHF Volume:	65	0	161	0	0	0	0	2507	67	107	1546	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	0	161	0	0	0	0	2507	67	107	1546	0
PCE 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
MLF 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
FinalVolume:	65	0	161	0	0	0	0	2507	67	107	1546	0

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.92	0.08	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4674	126	1600	4800	0

Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.10	0.00	0.00	0.00	0.00	0.54	0.54	0.07	0.32	0.00
Crit Moves:	****						****			****		

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Pacific Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	12	Average Delay (sec/veh):	xxxxxxx
Optimal Cycle:	90	Level Of Service:	C

\*\*\*\*\*

Street Name:	Pacific Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	0	1	1	0	2 1	0	1	0 3

Volume Module:

Base Vol:	13	5	18	133	0	152	198	2030	10	30	1110	180
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	15	6	20	149	0	170	222	2274	11	34	1243	202
Added Vol:	0	0	0	25	0	28	23	172	0	0	175	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	6	20	174	0	198	245	2446	11	34	1418	217
User 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
PHF 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
PHF Volume:	15	6	20	174	0	198	245	2446	11	34	1418	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	6	20	174	0	198	245	2446	11	34	1418	217
PCE 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
MLF 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
FinalVolume:	15	6	20	174	0	198	245	2446	11	34	1418	217
OvlAdjVol:	0											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.36	0.14	0.50	2.00	0.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	578	222	800	3200	0	1600	1600	4778	22	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.03	0.03	0.05	0.00	0.12	0.15	0.51	0.51	0.02	0.30	0.14	
OvlAdjV/S:	0.00												
Crit Moves:	****	****					****	****					

\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #20 Pine Avenue at Ocean Boulevard
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.922
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 113 Level Of Service: E
\*\*\*\*\*

Table with columns for Street Name (Pine Avenue, Ocean Boulevard), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves.

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #21 Long Beach Boulevard at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680  
 Loss Time (sec): 12 Average Delay (sec/veh): xxxxxxx  
 Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name:	Long Beach Boulevard						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	1	1	0	3	0	0	3

\*\*\*\*\*

Volume Module:

Base Vol:	0	0	0	118	0	174	155	1934	0	0	1073	175
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	132	0	195	174	2166	0	0	1202	196
Added Vol:	0	0	0	5	0	62	52	130	0	0	162	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	137	0	257	226	2296	0	0	1364	199
User 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
PHF 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
PHF Volume:	0	0	0	137	0	257	226	2296	0	0	1364	199
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	137	0	257	226	2296	0	0	1364	199
PCE 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
MLF 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
FinalVolume:	0	0	0	137	0	257	226	2296	0	0	1364	199

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.04	0.00	1.96	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	0	0	0	1671	0	3129	1600	4800	0	0	4800	1600

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.08	0.14	0.48	0.00	0.00	0.28	0.12
Crit Moves:				****		****	****		****			

\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #22 Atlantic Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Atlantic Avenue						Ocean Boulevard														
Approach:	North Bound			South Bound			East Bound			West Bound											
Movement:	L	T	R	L	T	R	L	T	R	L	T	R									
Control:	Permitted			Permitted			Permitted			Permitted											
Rights:	Include			Include			Include			Include											
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0									
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Lanes:	0	1	0	0	0	0	0	1	0	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	4	2	0	108	4	145	151	1881	4	19	1075	64
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	4	2	0	121	4	162	169	2107	4	21	1204	72
Added Vol:	0	0	0	7	0	44	39	96	0	0	121	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	2	0	128	4	206	208	2203	4	21	1325	78
User 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
PHF 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
PHF Volume:	4	2	0	128	4	206	208	2203	4	21	1325	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	2	0	128	4	206	208	2203	4	21	1325	78
PCE 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
MLF 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
FinalVolume:	4	2	0	128	4	206	208	2203	4	21	1325	78

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.33	0.00	0.97	0.03	1.00	1.00	2.99	0.01	1.00	2.83	0.17
Final Sat.:	1067	533	0	1546	54	1600	1600	4790	10	1600	4534	266

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.08	0.13	0.13	0.46	0.46	0.01	0.29	0.29
Crit Moves:	****					****		****		****		

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PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #23 Shoreline Drive/Alamitos Boulevard at Ocean Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.199  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: F  
 \*\*\*\*\*

Approach:	Shoreline Drive/Alamitos Boulevard					Ocean Boulevard						
	North Bound			South Bound		East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected		Protected			Protected			
Rights:	Include			Include		Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	1	1	0	2	1	0	1	0

Volume Module:

Base Vol:	59	601	589	77	129	177	284	1747	29	216	892	30
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	66	673	660	86	144	198	318	1957	32	242	999	34
Added Vol:	0	83	5	0	92	19	14	64	0	5	62	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	756	665	86	236	217	332	2021	32	247	1061	34
User 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
PHF 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
PHF Volume:	66	756	665	86	236	217	332	2021	32	247	1061	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	756	665	86	236	217	332	2021	32	247	1061	34
PCE 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
MLF 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
FinalVolume:	66	756	665	86	236	217	332	2021	32	247	1061	34

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00	2.00	1.94	0.06
Final Sat.:	1600	4800	1600	1600	3200	1600	1600	4800	1600	3200	3102	98

Capacity Analysis Module:

Vol/Sat:	0.04	0.16	0.42	0.05	0.07	0.14	0.21	0.42	0.02	0.08	0.34	0.34
Crit Moves:			****	****			****				****	

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #24 Golden Shore Street at Seaside Way (2)
\*\*\*\*\*

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[ 17.3]

Table with columns for Street Name (Golden Shore Street, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (1, 0, 1, 1, 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module table with columns for Critical Gap, FollowUpTim, and values for different movement categories.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movement categories.

Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #25 Chestnut Place at Seaside Way
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.406
Loss Time (sec): 0 Average Delay (sec/veh): 10.1
Optimal Cycle: 0 Level Of Service: B
\*\*\*\*\*

Table with columns for Street Name (Chestnut Place, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign), Rights (Include), Min. Green, and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across various movements.

Table for Saturation Flow Module showing Adjustment, Lanes, and Final Sat. values.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #26 Pine Avenue at Seaside Way  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.345  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Pine Avenue						Seaside Way					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L - T - R			L - T - R			L - T - R			L - T - R		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	2	153	13	23	215	37	36	50	7	22	41	28
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	2	171	15	26	241	41	40	56	8	25	46	31
Added Vol:	0	29	0	0	27	21	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	200	15	26	268	62	40	56	8	25	46	31
User 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
PHF 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
PHF Volume:	2	200	15	26	268	62	40	56	8	25	46	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	200	15	26	268	62	40	56	8	25	46	31
PCE 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
MLF 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
FinalVolume:	2	200	15	26	268	62	40	56	8	25	46	31

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.62	0.38	1.00	0.88	0.12	1.00	1.00	1.00
Final Sat.:	1600	1600	1600	1600	2595	605	1600	1404	196	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.13	0.01	0.02	0.10	0.10	0.03	0.04	0.04	0.02	0.03	0.02
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #27 Golden Shore Street at I-710 SB Off-Ramp

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[ 12.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes for Golden Shore Street and I-710 SB Off-Ramp.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module table showing Critical Gp and FollowUpTim values.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #28 Golden Shore Street at Shoreline Drive  
 \*\*\*\*\*

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[ 14.9]  
 \*\*\*\*\*

Street Name:	Golden Shore Street						Shoreline Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	1	0	1 0 1	0	0	1! 0 0	0	0	0 0 0

Volume Module:

Base Vol:	1	386	92	30	77	17	3	1	1	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	1	432	103	34	86	19	3	1	1	0	0	0
Added Vol:	0	0	0	70	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	432	103	104	86	19	3	1	1	0	0	0
User 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
PHF 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
PHF Volume:	1	432	103	104	86	19	3	1	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	432	103	104	86	19	3	1	1	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	6.4	6.5	6.2	xxxxxx	xxxx	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflict Vol:	105	xxxx	xxxxxx	535	xxxx	xxxxxx	780	831	86	xxxx	xxxx	xxxxxx
Potent Cap.:	1499	xxxx	xxxxxx	1043	xxxx	xxxxxx	367	307	978	xxxx	xxxx	xxxxxx
Move Cap.:	1499	xxxx	xxxxxx	1043	xxxx	xxxxxx	339	277	978	xxxx	xxxx	xxxxxx
Volume/Cap:	0.00	xxxx	xxxx	0.10	xxxx	xxxx	0.01	0.00	0.00	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.3	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	8.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	371	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.0	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	14.9	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			14.9			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #29 Chestnut Place at Shoreline Drive  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Chestnut Place						Shoreline Drive								
	North Bound			South Bound			East Bound			West Bound					
Approach:	L	T	R	L	T	R	L	T	R	L	T	R			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase			Split Phase			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	1	0	0	1	0	1	0	0	1	2	0	3	0	1

Volume Module:

Base Vol:	78	7	331	74	1	59	34	591	8	47	178	26
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	87	8	371	83	1	66	38	662	9	53	199	29
Added Vol:	0	0	0	4	0	0	0	119	34	0	52	83
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	8	371	87	1	66	38	781	43	53	251	112
User 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
PHF 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
PHF Volume:	87	8	371	87	1	66	38	781	43	53	251	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	8	371	87	1	66	38	781	43	53	251	112
PCE 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
MLF 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
FinalVolume:	87	8	371	87	1	66	38	781	43	53	251	112

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.84	0.16	1.00	0.99	0.01	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	2936	264	1600	1580	20	1600	3200	4800	1600	3200	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.03	0.23	0.06	0.05	0.04	0.01	0.16	0.03	0.02	0.05	0.07
Crit Moves:			****	****				****		****		

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PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #30 Pine Avenue at Shoreline Drive  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.541  
 Loss Time (sec): 18 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Pine Avenue						Shoreline Drive					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	2	0	3	0	1	1

Volume Module:

Base Vol:	21	22	43	94	33	71	80	981	32	25	194	63
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	24	25	48	105	37	80	90	1099	36	28	217	71
Added Vol:	0	0	0	0	0	27	29	88	0	0	96	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	25	48	105	37	107	119	1187	36	28	313	71
User 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
PHF 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
PHF Volume:	24	25	48	105	37	107	119	1187	36	28	313	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	25	48	105	37	107	119	1187	36	28	313	71
PCE 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
MLF 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
FinalVolume:	24	25	48	105	37	107	119	1187	36	28	313	71

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	3200	4800	1600	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.03	0.07	0.02	0.07	0.04	0.25	0.02	0.02	0.07	0.04
Crit Moves:			****	****				****		****		

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PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #90 Golden Shore at Driveway A
\*\*\*\*\*

Average Delay (sec/veh): 104.3 Worst Case Level Of Service: F[396.5]

Table with columns for Street Name (Golden Shore, Driveway A), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (1, 0, 1, 1, 0).

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for each approach.

Critical Gap Module: Table showing Critical Gp and FollowUpTim for each approach.

Capacity Module: Table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Level Of Service Module: Table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*
Intersection #91 Driveway B at Seaside Way
\*\*\*\*\*

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[ 11.0]

Table with columns for Street Name (Driveway B, Seaside Way), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1).

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for each approach.

Critical Gap Module: Table showing Critical Gp and FollowUpTim for each approach.

Capacity Module: Table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Level Of Service Module: Table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.
\*\*\*\*\*

PM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #92 Driveway C at Seaside Way  
 \*\*\*\*\*

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: A[ 8.8]  
 \*\*\*\*\*

Street Name:	Driveway C						Seaside Way								
	North Bound			South Bound			East Bound			West Bound					
Approach:	L - T - R			L - T - R			L - T - R			L - T - R					
Movement:															
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	0	0	0	55	0	0	347	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	0	0	0	0	0	0	62	0	0	389	0
Added Vol:	0	0	61	0	0	0	0	2	0	92	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	61	0	0	0	0	64	0	92	421	0
User 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
PHF 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
PHF Volume:	0	0	61	0	0	0	0	64	0	92	421	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	61	0	0	0	0	64	0	92	421	0

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxx	xxxx	64	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	64	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1007	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1552	xxxx	xxxxx
Movte Cap.:	xxxx	xxxx	1007	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1552	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	xxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxx	xxxx	0.2	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	8.8	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.8			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

**YEAR 2020 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS  
WITH MITIGATION**

AM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #7 Alamitos Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.799  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 149 Level Of Service: C  
 \*\*\*\*\*

Street Name:	Alamitos Boulevard					7th Street						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	68	350	104	58	437	126	51	477	9	234	1554	56
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	76	392	116	65	489	141	57	534	10	262	1740	63
Added Vol:	0	75	98	0	51	0	0	0	0	32	59	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	467	214	65	540	141	57	534	10	294	1799	63
User 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
PHF 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
PHF Volume:	76	467	214	65	540	141	57	534	10	294	1799	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	467	214	65	540	141	57	534	10	294	1799	63
PCE 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
MLF 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
FinalVolume:	76	467	214	65	540	141	57	534	10	294	1799	63

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	1.96	0.04	1.00	2.90	0.10
Final Sat.:	1600	3200	1600	1600	2537	663	1600	3141	59	1600	4638	162

Capacity Analysis Module:

Vol/Sat:	0.05	0.15	0.13	0.04	0.21	0.21	0.04	0.17	0.17	0.18	0.39	0.39
Crit Moves:	****				****					****		

\*\*\*\*\*

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AM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #15 Alamitos Boulevard at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Alamitos Boulevard						Broadway Avenue													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Permitted			Permitted			Protected			Prot+Permit										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	0	1	1	0	1	0	2	0	0	2	0	2	0	1	1	0	0	0	1

Volume Module:

Base Vol:	0	405	39	29	473	0	123	238	34	406	0	425
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	454	44	32	530	0	138	267	38	455	0	476
Added Vol:	0	120	0	0	82	0	11	32	15	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	574	44	32	612	0	149	299	53	455	0	476
User 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
PHF 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
PHF Volume:	0	574	44	32	612	0	149	299	53	455	0	476
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	574	44	32	612	0	149	299	53	455	0	476
PCE 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
MLF 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
FinalVolume:	0	574	44	32	612	0	149	299	53	455	0	476

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.86	0.14	1.00	2.00	0.00	2.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	2974	226	1600	3200	0	3200	3200	1600	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.19	0.02	0.19	0.00	0.05	0.09	0.03	0.28	0.00	0.30
Crit Moves:	****			****			****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Magnolia Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 100 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Magnolia Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	2	1	0	3

Volume Module:

Base Vol:	27	75	15	178	135	369	77	677	24	94	1857	93
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	30	84	17	199	151	413	86	758	27	105	2080	104
Added Vol:	28	8	15	37	10	53	76	21	0	21	186	48
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	92	32	236	161	466	162	779	27	126	2266	152
User 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
PHF 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
PHF Volume:	58	92	32	236	161	466	162	779	27	126	2266	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	92	32	236	161	466	162	779	27	126	2266	152
PCE 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
MLF 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
FinalVolume:	58	92	32	236	161	466	162	779	27	126	2266	152
OvlAdjVol:	304											

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.90	0.10	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4640	160	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.03	0.02	0.15	0.05	0.29	0.10	0.17	0.17	0.08	0.47	0.10	
OvlAdjV/S:	0.19												
Crit Moves:	****						****	****					

\*\*\*\*\*

AM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #20 Pine Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.777  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: C

\*\*\*\*\*

Street Name:	Pine Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	1	0	3

Volume Module:

Base Vol:	36	24	19	27	65	65	34	672	74	95	2075	96
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	40	27	21	30	73	73	38	753	83	106	2324	108
Added Vol:	4	4	15	2	5	7	12	159	5	39	168	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	31	36	32	78	80	50	912	88	145	2492	114
User 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
PHF 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
PHF Volume:	44	31	36	32	78	80	50	912	88	145	2492	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	31	36	32	78	80	50	912	88	145	2492	114
PCE 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
MLF 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
Final Volume:	44	31	36	32	78	80	50	912	88	145	2492	114

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.49	0.51	1.00	2.74	0.26	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	790	810	1600	4378	422	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.02	0.02	0.02	0.10	0.10	0.03	0.21	0.21	0.09	0.52	0.07
Crit Moves:	****				****		****			****		

\*\*\*\*\*

AM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #90 Golden Shore at Driveway A  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.542  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 36 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Golden Shore						Driveway A					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	0	194	0	0	277	0	0	0	0	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	217	0	0	310	0	0	0	0	0	0	0
Added Vol:	180	3	-18	-7	-63	196	205	0	65	0	0	69
PasserByVol:	0	0	11	14	63	0	0	0	0	0	0	0
Initial Fut:	180	220	-7	7	310	196	205	0	65	0	0	69
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	180	220	0	7	310	196	205	0	65	0	0	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	220	0	7	310	196	205	0	65	0	0	69
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	180	220	0	7	310	196	205	0	65	0	0	69

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	1.00	1.23	0.77	0.76	0.00	0.24	0.00	0.00	1.00
Final Sat.:	1600	3200	0	1600	1961	1239	1215	0	385	0	0	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.07	0.00	0.00	0.16	0.16	0.13	0.00	0.17	0.00	0.00	0.04
Crit Moves:	****			****			****			****		

PM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #7 Alamitos Boulevard at 7th Street  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.881  
 Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 100 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Alamitos Boulevard					7th Street						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	71	505	232	69	340	99	68	955	9	133	791	57
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	80	566	260	77	381	111	76	1070	10	149	886	64
Added Vol:	0	64	98	0	76	0	0	0	0	45	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	630	358	77	457	111	76	1070	10	194	952	64
User 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
PHF 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
PHF Volume:	80	630	358	77	457	111	76	1070	10	194	952	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	630	358	77	457	111	76	1070	10	194	952	64
PCE 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
MLF 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
Final Volume:	80	630	358	77	457	111	76	1070	10	194	952	64

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.61	0.39	1.00	1.98	0.02	1.00	2.81	0.19
Final Sat.:	1600	3200	1600	1600	2575	625	1600	3170	30	1600	4498	302

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.22	0.05	0.18	0.18	0.05	0.34	0.34	0.12	0.21	0.21
Crit Moves:			****	****			****			****		

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PM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #15 Alamitos Boulevard at Broadway Avenue

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.832

Loss Time (sec): 15 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name:	Alamitos Boulevard						Broadway Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1	1	0	2	0	0	1	1	0	0

Volume Module:

Base Vol:	0	839	37	58	404	0	550	550	117	118	0	153
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	940	41	65	452	0	616	616	131	132	0	171
Added Vol:	0	101	0	0	115	0	11	52	56	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1041	41	65	567	0	627	668	187	132	0	171
User 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
PHF 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
PHF Volume:	0	1041	41	65	567	0	627	668	187	132	0	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1041	41	65	567	0	627	668	187	132	0	171
PCE 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
MLF 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
Final Volume:	0	1041	41	65	567	0	627	668	187	132	0	171

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.92	0.08	1.00	2.00	0.00	2.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	3077	123	1600	3200	0	3200	3200	1600	1600	0	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.04	0.18	0.00	0.20	0.21	0.12	0.08	0.00	0.11
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Magnolia Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name:	Magnolia Avenue						Ocean Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	2	1	0	3

Volume Module:

Base Vol:	79	103	40	146	75	207	146	1995	20	38	1113	132
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	88	115	45	164	84	232	164	2234	22	43	1247	148
Added Vol:	35	10	19	137	9	74	64	18	0	18	133	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	125	64	301	93	306	228	2252	22	61	1380	173
User 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
PHF 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
PHF Volume:	123	125	64	301	93	306	228	2252	22	61	1380	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	125	64	301	93	306	228	2252	22	61	1380	173
PCE 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
MLF 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
FinalVolume:	123	125	64	301	93	306	228	2252	22	61	1380	173
OvlAdjVol:							78					

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4753	47	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.08	0.04	0.04	0.19	0.03	0.19	0.14	0.47	0.47	0.04	0.29	0.11
OvlAdjV/S:							0.05					
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #20 Pine Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.864  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name:	Pine Avenue						Ocean Boulevard					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	1	0	3

Volume Module:

Base Vol:	61	79	66	154	120	64	62	1916	84	76	1172	42
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	68	88	74	172	134	72	69	2146	94	85	1313	47
Added Vol:	5	5	19	6	5	13	8	157	5	39	180	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	93	93	178	139	85	77	2303	99	124	1493	52
User 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
PHF 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
PHF Volume:	73	93	93	178	139	85	77	2303	99	124	1493	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	93	93	178	139	85	77	2303	99	124	1493	52
PCE 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
MLF 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
FinalVolume:	73	93	93	178	139	85	77	2303	99	124	1493	52

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	0.62	0.38	1.00	2.88	0.12	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	1600	995	605	1600	4602	198	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.06	0.06	0.11	0.14	0.14	0.05	0.50	0.50	0.08	0.31	0.03
Crit Moves:	****			****			****			****		

\*\*\*\*\*

PM Cumulative (2020) + Project Mitigation  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #90 Golden Shore at Driveway A

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.679  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 47 Level Of Service: B

\*\*\*\*\*

Street Name:	Golden Shore						Driveway A					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	0	765	0	0	103	0	0	0	0	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	857	0	0	115	0	0	0	0	0	0	0
Added Vol:	113	-118	20	41	-12	114	344	0	103	0	0	7
PasserByVol:	0	117	0	0	12	0	0	0	0	0	0	0
Initial Fut:	113	856	20	41	115	114	344	0	103	0	0	7
User 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
PHF 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
PHF Volume:	113	856	20	41	115	114	344	0	103	0	0	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	856	20	41	115	114	344	0	103	0	0	7
PCE 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
MLF 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
FinalVolume:	113	856	20	41	115	114	344	0	103	0	0	7

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.01	0.99	0.77	0.00	0.23	0.00	0.00	1.00
Final Sat.:	1600	3127	73	1600	1609	1591	1231	0	369	0	0	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.27	0.27	0.03	0.07	0.07	0.22	0.00	0.28	0.00	0.00	0.00
Crit Moves:	****			****			****			****		

\*\*\*\*\*

**YEAR 2020 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS  
(CALTRANS)**

AM Cumulative (2020) + Project Caltrans  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.600  
 Loss Time (sec): 12 Average Delay (sec/veh): 18.3  
 Optimal Cycle: 90 Level Of Service: B

\*\*\*\*\*

Street Name:Golden Shore Street/Golden Avenue						Ocean Boulevard										
Approach: North Bound			South Bound			East Bound			West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Protected			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	31	31	31	28	28	28	6	22	22	19	19	19				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	1	1	0	0	1	0	2	1	0	1	0	2	1	1

Volume Module:

Base Vol:	19	52	124	3	6	0	56	643	129	106	1590	663
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	21	58	139	3	7	0	63	720	144	119	1781	743
Added Vol:	37	150	90	0	0	0	0	8	19	80	1	184
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	208	229	3	7	0	63	728	163	199	1782	927
User 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
PHF 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
PHF Volume:	58	208	229	3	7	0	63	728	163	199	1782	927
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	208	229	3	7	0	63	728	163	199	1782	927
PCE 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
MLF 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
FinalVolume:	58	208	229	3	7	0	63	728	163	199	1782	927

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	2.45	0.55	1.00	2.63	1.37
Final Sat.:	1700	1800	1800	1700	1800	0	1700	4410	990	1700	4737	2463

Capacity Analysis Module:

Vol/Sat:	0.03	0.12	0.13	0.00	0.00	0.00	0.04	0.17	0.17	0.12	0.38	0.38
Crit Moves:	****						****			****		
Green Time:	31.0	31.0	31.0	31.0	31.0	0.0	6.9	77.0	77.0	70.1	70.1	70.1
Volume/Cap:	0.13	0.45	0.49	0.01	0.01	0.00	0.64	0.26	0.26	0.20	0.64	0.64
Delay/Veh:	34.3	37.7	38.2	33.1	33.1	0.0	69.2	9.3	9.3	11.8	17.0	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.3	37.7	38.2	33.1	33.1	0.0	69.2	9.3	9.3	11.8	17.0	17.0
LOS by Move:	C	D	D	C	C	A	E	A	A	B	B	B
HCM2kAvgQ:	2	7	7	0	0	0	4	5	5	4	17	17

\*\*\*\*\*

AM Cumulative (2020) + Project Caltrans
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #27 Golden Shore Street at I-710 SB Off-Ramp

\*\*\*\*\*

Average Delay (sec/veh): 11.4 Worst Case Level Of Service: C[ 17.0]

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include Golden Shore Street and I-710 SB Off-Ramp with various traffic parameters.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume for each approach.

Critical Gap Module table showing Critical Gp and FollowUpTim for each approach.

Capacity Module table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Level Of Service Module table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

PM Cumulative (2020) + Project Caltrans  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #16 Golden Shore Street/Golden Avenue at Ocean Boulevard

\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.767  
 Loss Time (sec): 12 Average Delay (sec/veh): 35.1  
 Optimal Cycle: 180 Level Of Service: D

\*\*\*\*\*

Street Name: Golden Shore Street/Golden Avenue						Ocean Boulevard										
Approach: North Bound			South Bound			East Bound			West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Protected			Permitted						
Rights:	Include			Include			Include			Include						
Min. Green:	31	31	31	28	28	28	6	22	22	19	19	19				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Lanes:	1	0	1	1	0	0	1	0	2	1	0	1	0	2	1	1

Volume Module:

Base Vol:	127	482	136	9	3	0	80	1918	50	49	841	465
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	142	540	152	10	3	0	90	2148	56	55	942	521
Added Vol:	26	128	79	0	0	0	0	3	33	105	8	128
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	168	668	231	10	3	0	90	2151	89	160	950	649
User 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
PHF 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
PHF Volume:	168	668	231	10	3	0	90	2151	89	160	950	649
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	668	231	10	3	0	90	2151	89	160	950	649
PCE 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
MLF 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
Final Volume:	168	668	231	10	3	0	90	2151	89	160	950	649

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.49	0.51	1.00	1.00	0.00	1.00	2.88	0.12	1.00	2.38	1.62
Final Sat.:	1700	2674	926	1700	1800	0	1700	5185	215	1700	4278	2922

Capacity Analysis Module:

Vol/Sat:	0.10	0.25	0.25	0.01	0.00	0.00	0.05	0.41	0.41	0.09	0.22	0.22
Crit Moves:	****			****								
Green Time:	31.0	31.0	31.0	31.0	31.0	0.0	27.5	47.0	47.0	19.5	19.5	19.5
Volume/Cap:	0.29	0.73	0.73	0.02	0.01	0.00	0.17	0.79	0.79	0.43	1.02	1.02
Delay/Veh:	21.7	27.9	27.9	19.5	19.4	0.0	23.1	19.2	19.2	31.3	64.0	64.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.7	27.9	27.9	19.5	19.4	0.0	23.1	19.2	19.2	31.3	64.0	64.0
LOS by Move:	C	C	C	B	B	A	C	B	B	C	E	E
HCM2kAvgQ:	4	12	12	0	0	0	2	19	19	4	18	18

\*\*\*\*\*

PM Cumulative (2020) + Project Caltrans  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #27 Golden Shore Street at I-710 SB Off-Ramp  
 \*\*\*\*\*

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[ 12.4]

\*\*\*\*\*

Street Name:	Golden Shore Street				I-710 SB Off-Ramp										
	North Bound		South Bound		East Bound		West Bound								
Approach:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign								
Rights:	Include		Include		Include		Include								
Lanes:	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0

\*\*\*\*\*

Volume Module:

Base Vol:	0	385	0	0	85	0	34	0	36	0	0	0
Growth Adj:	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Initial Bse:	0	431	0	0	95	0	38	0	40	0	0	0
Added Vol:	0	0	0	0	70	0	141	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	431	0	0	165	0	179	0	40	0	0	0
User 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
PHF 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
PHF Volume:	0	431	0	0	165	0	179	0	40	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	431	0	0	165	0	179	0	40	0	0	0

\*\*\*\*\*

Critical Gap Module:

Critical Gp:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.4	xxxxx	6.2	xxxxxx	xxxxx	xxxxxx
FollowUpTim:	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	3.5	xxxxx	3.3	xxxxxx	xxxxx	xxxxxx

\*\*\*\*\*

Capacity Module:

Cnflct Vol:	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	381	xxxxx	165	xxxxx	xxxxx	xxxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	625	xxxxx	884	xxxxx	xxxxx	xxxxxx
Move Cap.:	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	625	xxxxx	884	xxxxx	xxxxx	xxxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.29	xxxxx	0.05	xxxxx	xxxxx	xxxxx

\*\*\*\*\*

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	1.2	xxxxx	0.1	xxxxx	xxxxx	xxxxxx			
Control Del:	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	13.0	xxxxx	9.3	xxxxxx	xxxxx	xxxxxx			
LOS by Move:	*	*	*	*	*	*	B	*	A	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx	xxxxx	xxxxx	xxxxxx			
SharedQueue:	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx			
Shrd ConDel:	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx	xxxxxx	xxxxx	xxxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx			12.4			xxxxxx					
ApproachLOS:	*			*			B			*					

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

**APPENDIX D**  
**SIGNAL WARRANT WORKSHEETS**

AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #9 Magnolia Avenue at 5th Street
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[eastbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1052]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=24]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1052]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #9 Magnolia Avenue at 5th Street  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	0	1	0	0	0	0	1	0	0	0
Initial Vol:	6	356	4	11	584	32	7	3	25	9	3	11

Major Street Volume: 994  
 Minor Approach Volume: 35  
 Minor Approach Volume Threshold: 287

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #24 Golden Shore Street at Seaside Way (2)
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[eastbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=1]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4] [total volume=1014]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound] [lanes=3] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.5]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=122]

FAIL - Approach volume less than 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4] [total volume=1014]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #24 Golden Shore Street at Seaside Way (2)  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	1	0	1	0	1
Initial Vol:	0	323	214		137	217	0		0	0	0		49	0	73					

Major Street Volume: 891  
 Minor Approach Volume: 122  
 Minor Approach Volume Threshold: 424

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #25 Chestnut Place at Seaside Way  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0
Initial Vol:	167		68		15	9		56		60	81		39		29	50		84		30
Major Street Volume:											375									
Minor Approach Volume:											165									
Minor Approach Volume Threshold:	796																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project  
Golden Shore Master Plan, Long Beach (2.08.2995.1)  
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #27 Golden Shore Street at I-710 SB Off-Ramp  
\*\*\*\*\*

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
Initial Vol:	0	94	0	0	0	263	0	0	431	0	273	0	0	0	0	0				
ApproachDel:	xxxxxx				xxxxxx				16.1				xxxxxx							

Approach[eastbound] [lanes=2] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=3.1]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=704]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3] [total volume=1061]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #27 Golden Shore Street at I-710 SB Off-Ramp

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
Initial Vol:	0	94		0		0	263		0		431	0		273		0	0		0	
Major Street Volume:					357															
Minor Approach Volume:					704															
Minor Approach Volume Threshold:					817															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #28 Golden Shore Street at Shoreline Drive
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[eastbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=9]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=636]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future.

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #28 Golden Shore Street at Shoreline Drive  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign						
Lanes:	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	0
Initial Vol:	3	83	2	66	463	10	8	0	1	0	0	0	0	0	0	

Major Street Volume: 627  
 Minor Approach Volume: 9  
 Minor Approach Volume Threshold: 446

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #90 Golden Shore at Driveway A
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Uncontrolled/Stop Sign), Lanes, Initial Vol, and ApproachDel.

Approach[eastbound] [lanes=1] [control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=11.2]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1246]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound] [lanes=1] [control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=69]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1246]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #90 Golden Shore at Driveway A  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1
Initial Vol:	180		220		-7	7		310		196	205		0		65	0		0		69
Major Street Volume:											907									
Minor Approach Volume:											270									
Minor Approach Volume Threshold:											319									

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #91 Driveway B at Seaside Way

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[southbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=69]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3] [total volume=530]

FAIL - Total volume less than 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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AM Cumulative (2020) + Project  
 Golden Shore Master Plan, Long Beach (2.08.2995.1)  
 Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #91 Driveway B at Seaside Way

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	48	0	21			0	358	0			0	103	0		

Major Street Volume: 461  
 Minor Approach Volume: 69  
 Minor Approach Volume Threshold: 551

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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AM Cumulative (2020) + Project
Golden Shore Master Plan, Long Beach (2.08.2995.1)
Linscott, Law and Greenspan, Engineers

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*

Intersection #92 Driveway C at Seaside Way

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[northbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=45]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3] [total volume=671]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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AM Cumulative (2020) + Project  
Golden Shore Master Plan, Long Beach (2.08.2995.1)  
Linscott, Law and Greenspan, Engineers

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #92 Driveway C at Seaside Way  
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0
Initial Vol:	0	0	0	0	45	0	0	0	0	0	0	406	0	0	0	117	103	0	0	0
Major Street Volume:					626															
Minor Approach Volume:					45															
Minor Approach Volume Threshold:					446															

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

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Intersection #9 Magnolia Avenue at 5th Street

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound									
Movement:	L	T	R	L	R	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign									
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	12	566		16		27	491		57		16	27		18		12	12		50						
ApproachDel:	xxxxxx					xxxxxx					29.6					21.3									

Approach[eastbound] [lanes=1] [control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.5]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=60]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4] [total volume=1305]  
 SUCCEED - Total volume greater than or equal to 800 for intersection  
 with four or more approaches.

Approach[westbound] [lanes=1] [control=Stop Sign]  
 Signal Warrant Rule #1: [vehicle-hours=0.4]  
 FAIL - Vehicle-hours less than 4 for one lane approach.  
 Signal Warrant Rule #2: [approach volume=75]  
 FAIL - Approach volume less than 100 for one lane approach.  
 Signal Warrant Rule #3: [approach count=4] [total volume=1305]  
 SUCCEED - Total volume greater than or equal to 800 for intersection  
 with four or more approaches.

SIGNAL WARRANT DISCLAIMER  
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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #9 Magnolia Avenue at 5th Street  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign				
Lanes:	1	0	0	1	0	0	1	0	0	0	0	1	0	0
Initial Vol:	12	566	16	27	491	57	16	27	18	12	12	50		
Major Street Volume:	1169													
Minor Approach Volume:	75													
Minor Approach Volume Threshold:	231													

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #24 Golden Shore Street at Seaside Way (2)
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 5 columns: Approach, Movement, Control, Lanes, Initial Vol, ApproachDel. Rows include North Bound, South Bound, East Bound, West Bound with various lane configurations and volumes.

Approach[eastbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=3]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=4] [total volume=1215]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound] [lanes=3] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.3]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=390]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=4] [total volume=1215]

SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #24 Golden Shore Street at Seaside Way (2)  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	1	0	1	0	1
Initial Vol:	0	569		43		34	177		0		0	2		0		6	1		383	
Major Street Volume:											822									
Minor Approach Volume:											390									
Minor Approach Volume Threshold:											458									

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #25 Chestnut Place at Seaside Way  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0
Initial Vol:	96	45		24		24	41		47		130	122		106		31	57		19	
Major Street Volume:													465							
Minor Approach Volume:													165							
Minor Approach Volume Threshold:	704																			

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #27 Golden Shore Street at I-710 SB Off-Ramp

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
Initial Vol:	0	431		0		0	165		0		175	0		40		0	0		0	
ApproachDel:	xxxxxx				xxxxxx				12.3				xxxxxx							

Approach[eastbound] [lanes=2] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.7]

FAIL - Vehicle-hours less than 5 for two or more lane approach.

Signal Warrant Rule #2: [approach volume=215]

SUCCEED - Approach volume >= 150 for two or more lane approach.

Signal Warrant Rule #3: [approach count=3] [total volume=812]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----  
SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #27 Golden Shore Street at I-710 SB Off-Ramp  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0
Initial Vol:	0	431		0		0	165		0		175	0		40		0	0		0	
Major Street Volume:					596															
Minor Approach Volume:					215															
Minor Approach Volume Threshold:					596															

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #28 Golden Shore Street at Shoreline Drive  
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0
Initial Vol:	1	432	103		104	86	19		3	1	1		0	0	0	0
ApproachDel:	xxxxxx				xxxxxx				14.9				xxxxxx			

Approach[eastbound] [lanes=1] [control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.0]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=6]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3] [total volume=751]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #28 Golden Shore Street at Shoreline Drive  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0
Initial Vol:	1	432	103			104	86	19			3	1	1			0	0	0	0	0
Major Street Volume:					745															
Minor Approach Volume:					6															
Minor Approach Volume Threshold:					386															

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #90 Golden Shore at Driveway A
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Lanes, Initial Vol, and ApproachDel.

Approach[eastbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=49.2]
SUCCEED - Vehicle-hours greater than or equal to 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=447]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1713]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=7]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4] [total volume=1713]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #90 Golden Shore at Driveway A  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	0
Initial Vol:	113	856	20	41	115	114	344	0	103	0	0	7

Major Street Volume: 1259  
 Minor Approach Volume: 447  
 Minor Approach Volume Threshold: 205

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #91 Driveway B at Seaside Way
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Lanes, Initial Vol, and ApproachDel.

Approach[southbound] [lanes=1] [control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=3]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3] [total volume=502]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
 Intersection #91 Driveway B at Seaside Way  
 \*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	0	0	0	1	1	0	1	0	0	1
Initial Vol:	0	0	0	2	0	1	17	62	0	0	389	32
Major Street Volume:				499								
Minor Approach Volume:				3								
Minor Approach Volume Threshold:				524								

SIGNAL WARRANT DISCLAIMER

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Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #92 Driveway C at Seaside Way  
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Lanes:	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0
Initial Vol:	0	0	61			0	0	0	0		0	64	0			92	421	0		
ApproachDel:	8.8					xxxxxx					xxxxxx					xxxxxx				

Approach[northbound] [lanes=1] [control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.1]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=61]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3] [total volume=637]

FAIL - Total volume less than 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #92 Driveway C at Seaside Way  
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	1	0	0	0	0	0	0	1	0	1	0	2	0
Initial Vol:	0	0	61		0	0	0	0	0	64	0		92	421	0	
Major Street Volume:					576											
Minor Approach Volume:					61											
Minor Approach Volume Threshold:					475											

SIGNAL WARRANT DISCLAIMER

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