

# Attachment 3

**2021 Revised Queue Analysis  
with Reduced Lane Lengths**

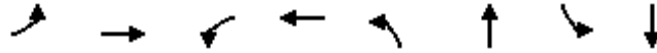
Revised Queue Analysis -  
October 2021

Queues

38: Shoreline Boulevard & Middlefield Road

North Bayshore Precise Plan EIR

Existing + Project AM Peak Hour - Mitigated



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	122	439	153	673	235	969	255	459
v/c Ratio	0.59	0.60	0.62	0.85	0.80	0.64	0.82	0.30
Control Delay	78.5	51.5	76.8	58.4	78.4	36.2	77.4	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.5	51.5	76.8	58.4	78.4	36.2	77.4	27.6
Queue Length 50th (ft)	58	185	73	285	216	377	234	144
Queue Length 95th (ft)	94	237	112	351	301	508	321	209
Internal Link Dist (ft)		836		508		796		722
Turn Bay Length (ft)	170		160		160		145	
Base Capacity (vph)	213	813	260	878	366	1506	390	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.54	0.59	0.77	0.64	0.64	0.65	0.30

Intersection Summary

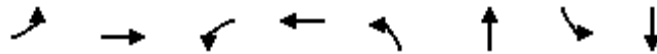
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Queues

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Existing + Project PM Peak Hour - Mitigated



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	295	790	295	674	147	895	368	1558
v/c Ratio	0.79	1.00	0.70	0.81	0.79	0.67	1.39	1.02
Control Delay	76.2	81.7	68.2	57.9	88.5	37.6	239.4	68.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
Total Delay	76.2	81.7	68.2	57.9	88.5	37.6	239.4	72.4
Queue Length 50th (ft)	136	355	135	303	131	341	-445	-810
Queue Length 95th (ft)	#189	#506	179	367	#230	435	#647	#992
Internal Link Dist (ft)		836		508		796		722
Turn Bay Length (ft)	170		160		160		145	
Base Capacity (vph)	392	789	514	896	202	1339	265	1520
Starvation Cap Reductn	0	0	0	0	0	0	0	16
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	1.00	0.57	0.75	0.73	0.67	1.39	1.04

Intersection Summary

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