

From: [REDACTED]
To: [City Council](#)
Cc: [BPAC Communication](#)
Subject: 6/28/22 meeting agenda item 4.12 (Trip Cap)
Date: Sunday, June 26, 2022 4:40:32 PM
Attachments: [Shoreline Gateway Northbound AM.txt](#)
[Shoreline Gateway 6-1-22 PM.txt](#)
[Shuttle buses.txt](#)

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To: Mountain View City Council
From: Joel Dean, [REDACTED] MV
Re: Trip Cap Reports

The Fall 2021 and Spring 2022 Trip Cap Reports are useful for judging the effects of the pandemic. They will serve as baselines for the recovery phase when sufficient data is available. It obviously was not available as of February 2022, since Google's hybrid work schedule did not take effect till early April. Too much has changed for pre-April data to be used to forecast the future. The same could be said for the North Bayshore Precise Plan, which was antiquated even before the pandemic.

Council need not wait till the Fall 2022 report for a peek at what the present looks like. Attached are my personal counts of northbound vehicles at the Shoreline/Avenida/101/85 intersection during 15-20 minute intervals of the morning peak hour between late April and early June. Early April counts are excluded due to the signal control system having been disrupted by a construction incident, which may have caused anomalies. Later counts were not taken because I was sick and tired of doing them. The most significant findings were as follows:

(1) Total midweek northbound (incoming) vehicle traffic decreased by 12% from pre-pandemic levels. Monday and Friday traffic was only half as great as Tuesday through Thursday.

(2) Midweek traffic northbound on Shoreline Boulevard decreased by over 35%. Shoreline is free of congestion from Middlefield to Avenida.

(3) Inbound traffic on the 85/101N exit increased by more than 10% relative to 2019, but with less congestion, as evidenced by shorter queue lengths on the exit ramp, rarely extending past the merge point. This was made possible by there being fewer backups from the Pear Avenue intersection once the signal control damage was repaired. Two factors may have contributed to the shift from Shoreline to freeways -- (a) virtual elimination of 101 drivers turning south, making a U-turn at Terra Bella, and approaching North Bayshore on Shoreline, and (b) Google employees having moved from the overpriced and overcrowded vicinity of Mountain View to more family-friendly locations farther away.

(4) A majority of northbound shuttle buses come from the freeway exit rather than Shoreline, and obviously not from the downtown Transit Center. Even in the AM peak, southbound shuttles outnumber northbound 2:1. Rengstorff and San Antonio are still the way in and Shoreline the way out for many shuttles. VTA is irrelevant.

Doing the so-called Spring Trip Cap in February leads to low counts of cyclists and pedestrians. Most of them get to North Bayshore on the Permanente and Stevens Creek Trails. The trails close at dusk, which comes before quitting time in winter. Pedestrians will be undercounted at any time of year if the counting device is a pneumatic tube laid in their path. Most walkers will step over it. Only the occasional fanatic will stomp on it several times to make sure his peers are not overlooked.

Thank you for your attention.

AM peak traffic, Shoreline at 101 & 85 NB exit/ La Avenida

	NB Vehicles/hour		Total	Vehicles/minute green	
	101/85	Shoreline		101/85	Shoreline
Wed 4/6/22	983	919	1902	34.9	40.6
Fri 4/8/ 22	950	485	1435	32.5	22.7
Wed 4/13/22	1456	757	2215	50.4	35.8
Tue 4/19/22	992	723	1716	32.7	35.0
Wed 4/20/22	1253	673	1926	44.5	30.7
Thu 4/21/22	1186	500	1686	--	--
Mon 4/25/22	784	346	1130	--	--
Tue 4/26/22	1305	864	2169	--	--
Wed 4/27/22	1377	1020	2397	--	--
Thu 4/28/22	1380	852	2232	--	--
Fri 4/29/22	788	400	1188	30.3	16.3
Mon 5/2/22	896	428	1324	33.0	19.3
Tue 5/3/22	1343	869	2252	50.6	40.6
Wed 5/4/22	1323	744	2051	48.9	32.8
Thu 5/5/22	1442	664	2106	48.4	32.2
Fri 5/6/22	956	409	1365	34.0	19.3
Tue 5/17/22	1378	756	2134	48.9	36.6
Wed 5/18/22	1334	709	2043	46.6	33.4
Wed 5/25/22	1154	690	1844	41.0	32.7
Thu 5/26/22	1365	594	1959	48.2	27.9
Tue 5/31/22	1378	649	2027	47.1	30.5
Thu 6/2/22	1401	574	1975	48.0	27.9
Tue 6/7/22	1465	722	2137	51.3	34.3
Wed 6/8/22	1281	737	2018	45.2	33.2
4/25-ff T-Th avg.	1352	746	2098	47.7*	32.9*
Change since 2019	+10.6%	-35.3%	-11.8%	+21.1%	-35.6%
Split	64.4%	35.6%			
2019 T-Th average	1225	1154	2379	39.4*	51.1*
Split	51.5%	48.5%			

* Not weighted by volume

Traffic count taken at Shoreline/101 NB/85/Avenida

Wednesday 6/1/22 P.M.

Green Phases: A = La Avenida; F = freeway exit; S = Shoreline

----- MV Count -----

Phase	Duration	RTOR fr To 101 fr			
		NB	Avenida	Shoreline	SB
F	0:21	13	0	0	18
S	1:20	11	1	2	72 (28 in #3 lane)
A	0:25	0	0	0	4
F	0:35	20	0	0	18
S	1:26	10	0	5	70 (32 in #3 lane)
A	0:29	0	0	1	8
F	0:24	14	0	2	15
S	1:32	13	0	1	68 (33)
A	0:31	1	0	0	11
F	0:18	10	0	0	14
S	1:20	7	0	1	63 (28)
A	0:25	0	0	1	10
F	0:34	24	0	0	13
S	1:20	15	0	1	49 (28)
A	0:25	0	0	1	15
F	0:22	12	0	0	9
S	1:21	13	0	2	65 (31)
A	0:24	0	0	0	10

TOTALS (6 cycles) F S A All

Green Time (sec)	154	459	171	824
" " (min:sec)	2:34	8:19	2:51	13:44
% Green	18.7%	60.6%	20.8%	

MV NB	93	69	2	164
NB Vehicles/hour	406	301	9	716
NB Vehicles/minute green	36.2	9.0	0.7	

MV SB	87	387	58	532
SB Vehicles/hour	380	1690	253	2323
SB Vehicles/minute green	33.9	50.6	20.3	
SB Vehicles/lane/minute green	16.9	16.8	10.2	

MV SB in #1 & 2 lanes	207 (53.5%)
SB in #1 & 2 lanes/hour	904
SB in #1 & 2 lanes/minute green	27.1

" per lane 13.5

MV SB in #3 lane	180 (46.5%)
SB in #3 lane/hour	786
SB in #3 lane/minute green	23.5
" per lane	23.5

Estimate 330 (62% of total) SB trips will be headed to 101/85S, 287 from Shoreline, 43 from Avenida. Requires 107 to weave right between Avenida and freeway entrance. Traffic intermittently halted by backups in right lane.

A.M. peak shuttle buses, Shoreline Gateway 2022

Fwy = NB 101/85 exit Shr = Shoreline Avn = La Aveinda

Northbound from: Southbound from:
Minutes

Date	Fwy	Shr	Total	Shr	Avn	Total	Counted
4/25	5	2	7	15	2	17	15
4/26	3	6	9	21	2	23	20
4/27	3	6	9	20	2	22	20
4/28	3	5	8	20	2	22	15
4/29	6	4	10	11	0	11	15
5/2	3	4	7	12	2	14	15
5/3	3	4	7	11	0	11	15
5/4	3	5	8	12	2	14	15
5/5	7	10	17	25	4	29	20
5/6	6	2	8	13	3	16	15
5/17	5	3	8	17	2	19	20
5/18	5	3	8	17	0	17	15
5/25	4	4	8	13	4	17	15
5/26	4	1	5	21	2	23	15
5/31	3	3	6	13	2	15	15
6/2	4	3	7	11	2	13	15
6/7	8	2	10	13	1	14	15
6/8	9	4	13	13	3	16	15
Total	81	66	147	258	33	291	

Shuttles NB from La Avenida or SB from freeway exit few and far between, and not counted.

VTA buses disregarded for being irrelevant. All but a very few not in service, the rest carrying less than one passenger per trip according to previous Trip Cap report.