METROPOLITAN TRANSPORTATION COMMISSION

PROGRAM FOR ARTERIAL SYSTEM SYNCHRONIZATION (PASS)

FY22/23 CYCLE

PROGRAM SUMMARY

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PASS FY22/23 Cycle Program Summary

#	County	Project Sponsor	# of Traffic Signals	Timing Plans/Services	Project Consultant
1	SM	Town of Atherton	5	Weekday AM/midday/PM school/PM peaks, Weekend AM/midday/PM peaks	TJKM
2	CC	City of Concord	55	Weekday AM/midday/PM peaks	TJKM
3	NAP	City of Napa	38	Weekday AM/midday/PM peaks, Weekend peaks, special event flush plans	Iteris
4	CC	City of Pittsburg	35	Weekday AM/PM school/PM peaks	TJKM
5	SM	City of Redwood City	13	Weekday AM/midday/PM peaks, Weekend peak/off-peak, updated TSP plans	Kimley-Horn
6	SM	City of San Bruno	19	Weekday AM/midday/PM peaks, Weekend peak/off-peak	Kimley-Horn
7	SCL	City of San Jose	71	Weekday AM/midday/PM peaks, Leading Pedestrian Interval evaluation	Iteris
8	SON	City of Santa Rosa	18	Weekday AM/midday/PM peaks, emergency flush plans	DKS
9	SM	City of South San Francisco	23	Weekday AM/midday/PM peaks, Weekend AM/midday/PM peaks	DKS
10	CC	City of Walnut Creek	22	Weekday AM/midday/PM peaks, Weekend peak/off-peak, traffic responsive plans	Kimley-Horn
Total Signals			**299**		

Note: CC = Contra Costa, NAP = Napa, SCL = Santa Clara, SM = San Mateo, SON = Sonoma

Benefit/Cost Summary*:

Total Lifetime Benefits: $59,598,691
Total Program Costs: $1,647,785

Overall Program Benefit/Cost Ratio: 39:1

*Program benefits are assumed to be 100% on the first day after implementation of the new timing plans, declining steadily to zero by the end of the fifth year.

LIFETIME (5 YRS) PROGRAM BENEFITS:


Auto Travel Time Savings: 17% (2,003,319 hrs.)


Average Increase in Auto Speed: 30%


Fuel Consumption Savings: 3% (927,281 gal.)

Total Emissions Reduced: 140 tons
(ROG, NOx, PM2.5, CO)

PASS FY22/23 Cycle Summary of Benefits

Lifetime (5 Years) Project Benefits	Atherton	Concord	Napa	Pittsburg	Redwood City	San Bruno	San Jose	Santa Rosa	South San Francisco	Walnut Creek
Benefit/Cost Ratio	**21**	**36**	**39**	**18**	**42**	**23**	**54**	**32**	**48**	**52**
Auto Travel Time Savings (%)	15%	15%	21%	8%	22%	22%	19%	17%	21%	10%
Auto Travel Time Savings (hours)	40,313	275,708	248,633	85,096	138,883	108,094	457,922	103,694	281,858	263,119
Average Reduction in Auto Signal Delay (%)	24%	37%	67%	56%	56%	56%	36%	13%	33%	56%
Average Reduction in Number of Stops (%)	20%	26%	31%	47%	47%	47%	23%	41%	21%	47%
Average Speed Before (mph)	18	19	18	24	18	17	24	12	15	19
Average Speed After (mph)	21	24	25	25	23	22	30	17	21	22
Fuel Consumption Savings (%)	2%	4%	4%	2%	2%	4%	6%	5%	5%	2%
Fuel Consumption Savings (gal)	4,878	161,134	112,955	26,614	28,294	35,041	282,427	54,140	140,043	81,753
Total Emissions Reduction (tons)	1.6	17.2	22.9	3.8	12.9	8.3	32.4	4.8	21.7	14.5