



CITY OF SAN MATEO

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Agenda Report

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TO: City Council
FROM: Drew Corbett, City Manager
PREPARED BY: Public Works Department
MEETING DATE: August 17, 2020

SUBJECT:
Citywide Traffic Management Update

RECOMMENDATION:

Receive an informational presentation regarding Police and Public Works related traffic projects and provide feedback on addressing traffic priorities.

BACKGROUND:

This agenda report presents information regarding efforts the City's Police and Public Works Departments have taken during recent years in efforts that continue to address traffic issues, including traffic enforcement, congestion management, traffic calming implementations, and traffic incidents. This report also discusses ways traffic can be managed in the future and requests City Council input regarding various traffic priorities.

Police Department

The ultimate goal of traffic law enforcement is to reduce traffic collisions. This may be achieved through the application of such techniques as geographic/temporal assignment of personnel and equipment and the establishment of preventive patrols to address specific categories of unlawful driving behavior. Traffic enforcement techniques are based on accident data, enforcement activity records, traffic volume, and traffic conditions. The San Mateo Police Department provides enforcement efforts toward violations, not only in proportion to the frequency of their occurrence in accident situations, but also in terms of traffic-related needs.

Several factors are considered in the deployment of officers including collision data, engineering studies, calls-for-service, complaints from the community, and the collective expertise of traffic officers and traffic engineers. Some of the factors for analysis include the location, time, day, weather, and the type of traffic collisions and offenses. Engineering solutions and techniques when applicable are designed to create a safe operating environment for lawful people. The reality is that conflict and injuries occur when people perform unlawful acts. Traffic collisions are not accidents, barring mechanical malfunction or medical condition, and these collisions are predominantly an avoidable event.

City Collision Data

The City of San Mateo's injury collision rates are relatively low. In 2019, the Police Department took 675 collision reports citywide. To put this in perspective, one of the City's busy stretches of roadways, eastbound E. 4th Avenue from S. Delaware Street to Highway 101, between 2017-2019, averaged about 18,600 vehicles a day (about 775 vehicles an hour and about 6,789,000 vehicles annually). Over the course of this same three (3) year period, the Police Department took 45 collision reports on this stretch of roadway. This averaged to one (1) collision every 24.33 days or one (1) collision every 452,538 vehicles.

Staff Resources

The San Mateo Police Department's Traffic Division is allocated two (2) sergeants, six (6) traffic enforcement officers, one (1) community service officer, two (2) vehicle abatement officers, one (1) traffic coordinator, and one (1) administrative assistant. The traffic sergeants are responsible for overseeing and managing a variety of specialized units beyond the supervision of traffic officers, such as special operations, event coordinating, parking enforcement (Serco), Unmanned Aircraft Systems unit, vehicle abatement program, traffic grants, tow companies and hearings, citation management and appeals, major accident investigations, etc. Of the traffic officers, four (4) are assigned to patrol teams and therefore subject to routinely responding to non-traffic related calls for service. The police department has one (1) full-time traffic officer assigned to address neighborhood forum Traffic Action Plans (TAP). The sixth traffic officer position, which is the second (2nd) TAP officer, is currently vacant but is expected to be filled by the end of the calendar year.

Traffic Action Plans

Most of these neighborhood-specific Traffic Action Plans (TAPs) were developed during early 2017 after direction from City Council during late 2015 and City-wide outreach during 2016. Utilizing feedback from residents about their top traffic-related concerns, Police and Public Works staff worked with neighborhood representatives to prioritize issues and recommend improvements. To date, a total of 14 neighborhoods have elected to develop TAPs. Among the top concerns identified for the Police Department, forty-eight (48) are related to traffic and/or parking enforcement, with twenty-nine (29) of these relating to speeding.

Since the establishment of the TAPs in 2016, the Police Department's TAP officer(s) have focused their efforts in addressing each neighborhood's identified concerns. The following table identifies the total number of police-related TAP items per neighborhood, neighborhood collisions, and enforcement efforts. The table also indicates that traffic enforcement stops coincide with the highest occurrences of traffic collision locations, which are the North Central, Hillsdale, and Hayward Park neighborhoods.

	PD TAP Items		Neighborhood Collisions				Traffic	
	No. of Items	Speed-Related	Speed	Injuries	DUIs	Total	Trailer Deployments	Stops
Bay Meadows	2	1	2	5	1	18	9	362
Baywood	9	5	4	10	3	20	12	131
Central	5	4	2	5	2	13	6	165
Fiesta Gardens	2	2	5	4	0	9	8	371
Glendale Village	1	0	3	5	5	19	4	328
Hillsdale*	2	2	8	23	9	70	25	737
Hayward Park	2	2	8	14	2	34	13	1371
Laurie Meadows	3	1	3	5	5	19	5	328
North Central	1	0	17	33	17	95	13	1077
North Shoreview	5	3	4	4	4	25	3	287
Parrott Park	8	1	4	9	3	20	5	131
San Mateo Heights	1	1	0	1	0	3	4	5
Sugarloaf	3	3	0	2	2	4	7	25
Sunnybrae	4	4	1	6	3	13	12	91

*Largest HOA

Top Ranking Collision Locations

The following is a citywide tabulation of collision data for locations with three or more collisions in a calendar year. Blank fields represent less than three collisions for a location. A review of this citywide collision data reveals three neighborhood TAP concerns are related to locations in this table, and of these concerns, one is related to speeding. This table indicates that TAP concerns are not in alignment with identified top collision locations.

HOA	Neighborhood Concerns	Collision Locations		YTD 2020	2019	2018	2017	Total	Ranking
		E HILLSDALE BL	S NORFOLK ST		6	11	6	23	1
North Shoreview	#1 Cut Through	E 3RD AV	S NORFOLK ST		8	7	7	22	2
		FASHION ISLAND BL	S NORFOLK ST	3	6	8	5	22	2
		E HILLSDALE BL	SARATOGA DR		5	7	8	20	3
North Central	#9 Congestion	N HUMBOLDT ST	E POPLAR AV		7	5	6	18	4
		S EL CAMINO REAL	42ND AV		5	8	4	17	5
Central	#3 Speed	E 4TH AV	S GRANT ST		4	5	5	14	6
		E 3RD AV	S HUMBOLDT ST			4	5	9	7
		S EL CAMINO REAL	W HILLSDALE BL		4		4	8	8
		S EL CAMINO REAL	BARNESON AV		4		3	7	9
		E POPLAR AV	N IDAHO ST	4	3			7	9
		PENINSULA AV	N DELAWARE ST			4	3	7	9
		S SAN MATEO DR	2ND AV	3	4			7	9
		S EL CAMINO REAL	17TH AV	3		3		6	10
		S EL CAMINO REAL	2ND AV				6	6	10
		S EL CAMINO REAL	9TH AV		6			6	10
		E HILLSDALE BL	101 SB E HILLSDALE				6	6	10
		MARINERS ISLAND	FASHION ISLAND			3	3	6	10
		N HUMBOLDT ST	INDIAN AV		3	3		6	10

The above collision data confirms high concentrations of vehicles have a higher propensity for collisions. We know from our experience with speed enforcement, people who speed in one location will do so in other locations, which is why our traffic officers need to spend time in areas where they will yield the greatest probability of apprehending egregious traffic offenders. Our current enforcement model of focusing primarily on neighborhood TAP concerns and having traffic officers' as part of minimum patrol staffing levels detracts from more efficient use of our limited police resources.

Responding to traffic complaints and driver behavior is a complex subject. Many people believe having a police officer present on their street and issuing tickets will correct their concerns of traffic violations. Staff has seen from experience and data that traffic enforcement does change driver behavior, but this effect fades over time without relentless enforcement requiring a significant commitment and resources. Under the current model, a traffic officer may spend

hours waiting to catch a single traffic offender in a neighborhood. Whereas a traffic officer deployed to any of the high traffic collision locations referenced above will yield numerous traffic enforcement stops. Traffic enforcement changes driver behavior with high visibility enforcement yielding the highest impact, including to a lesser extent, on passing motorists who witness a traffic enforcement stop.

Public Works

Traffic Action Plans

During recent years, Public Works' effort to address traffic issues have largely focused on implementation of the TAP program, discussed earlier in the report. This work and other tasks are undertaken by three engineers and one technician. Of the 292 total recommendations, Public Works is responsible for 244 of them. The following table provides the number and status of Police and Public Works TAP efforts by neighborhood:

Neighborhood	Pending	In Progress	Ongoing	Completed/ No Further Action Required	Total
Baywood	14	1	6	12	33
Sunnybrae	7	2	2	7	18
Parrott Park	4	2	6	13	25
Hayward Park	7	1	1	9	18
Laurie Meadows	4	4	3	16	27
Central	15	3	0	17	33
Hillsdale	1	5	1	15	22
Glendale Village	0	3	1	7	11
Fiesta Gardens	3	6	1	8	18
North Shoreview	2	4	3	13	22
North Central	4	5	0	4	13
San Mateo Heights	7	2	0	5	14
Bay Meadows (Ph. II)	7	5	3	6	21
Sugarloaf	14	3	0	0	17
Total	89	44	27	132	292

The TAP program has received \$1.25 million in Measure S funding since 2016 to implement Public Works-related recommendations identified in the TAP reports. Funding for larger projects that require significant capital costs is being requested through the City's Capital Improvement Project budget. To date, approximately \$700,000 has been spent on the TAP program, including staff time developing the program and infrastructure improvements such as installation of signs and markings, speed feedback signs, rectangular rapid flashing beacons at pedestrian crosswalks, and speed cushions. Separately, an additional \$700,000 has been allocated for larger capital projects such as curb extensions, new traffic signals, and broader traffic studies. Examples of this are the recently completed curb extensions at Delaware/5th Avenue and Delaware/9th Avenue – two, larger-scale projects identified in the Central Neighborhood Traffic Action Plan.

Resident Requests

In addition to the recommendations identified in the TAPs, Public Works continues to receive requests to address various traffic issues around the City. During fiscal year 2019-20, staff received over 100 separate requests to address concerns about stop signs, speeding, intersection visibility, parking removal, cut-through traffic, and other general traffic-related items. Each request is independently evaluated, and a response is provided to the resident based on the request's merits and funding availability. Some requests, such as speed cushion and stop sign requests, result in substantial time and effort to complete, including the need to collect traffic data such as speed surveys and traffic volumes, data analysis, petition collection and outreach, and procurement processes often taking several months to a year to complete.

Corridor-Level Improvements

While the TAPs and other traffic calming requests have been used primarily to identify and address neighborhood issues at a local level with localized benefit, they have also indirectly helped to identify some of the City's overarching traffic issues. Many of the issues identified in TAPs are tied to the severe congestion caused by regional traffic impacts, with the most prevalent being cut-through traffic and speeding issues. Accordingly, other improvements that ensure the City's primary roadway corridors and intersections flow as smoothly as possible can be one of the most effective tools to solve local traffic issues. Several of those key corridors, arterials, and intersections include the following:

- 3rd Avenue/4th Avenue corridors
- 19th Avenue/Fashion Island Boulevard corridor
- Hillsdale Boulevard corridor
- El Camino Real corridor

Several projects are already in progress to address the issues along the corridors listed above and major intersections. For example, staff has begun the 19th Avenue/Fashion Island Boulevard Corridor Study to identify short-, mid-, and long-term improvements along the corridor to reduce travel times and congestion. Another project is the Hillsdale/US-101 northbound ramp intersection improvement, where the existing eastbound right-turn lane onto US-101 northbound will be converted to a shared through/right turn lane allowing for a third lane of eastbound traffic across the bridge.

Technology-Based Improvements

Additionally, staff has begun the process of implementing technology improvements throughout the City's traffic network. The City is completing its first Traffic Signal Master Plan, which identifies technology goals for the traffic network and defines the steps, including infrastructure, devices, and staffing levels, needed for implementation. Goals defined in the plan include coordinating traffic signal timing, whereby a corridor of traffic signals have synchronized green lights optimizing traffic flow; adaptive traffic signal systems, where the signal systems are allowed to change signal timing according to actual vehicular volumes rather than averages; and signal performance measures, where signal optimization is monitored and adjusted proactively rather than reactively. Improved traffic flow reduces the incentive to seek short-cuts or desire to cut through neighborhoods. As traffic management capabilities continue to advance in the City, corridor and intersection optimization and technology-driven solutions can help address some neighborhood traffic issues as well as improve the flow of traffic throughout the City.

Future Priorities and Staff Recommendations

The neighborhood TAPs have been an important step in identifying and addressing local traffic issues, and both Police and Public Works staff have worked to address this Council priority since 2016. However, this effort has resulted in less focus on data-driven enforcement and engineering solutions on the City's major corridors and locations with the highest collision rates. As a result, staff has limited ability to focus on industry-standard methods to address traffic issues around the City, such as conducting enforcement at the most effective locations to reduce the propensity for motorists to speed, and focusing engineering efforts on higher volume corridors to ensure they flow smoothly thus reducing the inclination to cut-through neighborhoods.

Staff recommends that the Police and Public Works Departments continue to work closely together to proactively address traffic flow and safety concerns based upon collision data, engineering studies, enforcement activity, traffic volumes, the use of advanced technology to obtain real time (or near real time) data, community input, and staffs' collective experience and expertise, rather than focusing predominantly on the Traffic Action Plans. These changes are expected to better align the City's goals toward addressing traffic concerns and making improvements in the future.

BUDGET IMPACT:

There is no budget impact for receiving this informational presentation about Police and Public Works traffic-related efforts.

ENVIRONMENTAL DETERMINATION:

This project is not a project subject to CEQA, because it is an organizational or administrative activity that will not result in

direct or indirect physical changes in the environment. (CEQA Guidelines Section 15378(b)(5).)

NOTICE PROVIDED

All meeting noticing requirements were met.

ATTACHMENTS

None

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