

The following letter was sent to San Mateo city council members on May 16, 2016, by SaferstreetsLA.org

Hi,

This email is a follow-up to our previous conversations regarding the red light camera program in San Mateo. I understand that this issue is back on the agenda for this evening's city council meeting and I wanted to share a few additional thoughts with you.

As I mentioned to you when we spoke back in November, I personally don't have a problem with the concept of automated enforcement, but I strongly believe that any such program should be based on a demonstrated safety need and shouldn't target minor violations with an excessive fine. Further, any program that has been in operation for a number of years and that has issued tens of thousands of tickets, should be shown to definitively have improved safety where it has been employed. Unfortunately, while well intentioned, the San Mateo red light camera program fails all three tests.

I have reviewed the staff report that has been submitted on this item and have conducted an independent analysis of some of the claims therein. Before you make any final decision as to renewing the program for another 2 years or adding additional right turn ticketing at Hillsdale and Norfolk, I respectfully ask you to consider the following information:

From the Staff Report - ...between 2000 and 2004, there were 380 accidents citywide due to red-light violations, with injuries reported in 153 of those accidents. Comparatively, between 2011 and 2015, there were 140 collisions citywide with red light violation as the primary collision factor, with injuries reported in 113 of those accidents. According to these statistics, in the past four years, San Mateo has experienced 63% fewer collisions caused by red light violations and 26% fewer related injuries than were experienced in the 4 years preceding the initiation of the automated enforcement program. In this context, automated traffic enforcement has been an effective tool to reduce violations and enhance traffic safety for the public citywide.

What they haven't told you - At first glance, these statistics seem impressive, especially to one who wishes to believe that red light cameras have improved safety in San Mateo. However, if one digs further into the statistics it becomes apparent that the staff report claims are likely misleading. First, the staff report looks at RLR collisions throughout the entire city and attributes any changes in collisions to the presence of red light cameras at just three intersections. The City of San Mateo has upwards of 100 intersections with traffic signals. Consider for yourself if it is likely that the presence of red light cameras at just 3% of intersections is responsible for such a significant reduction in red light running collisions throughout the entire city. This is not likely, especially since the number of red light running collisions at the intersections with the cameras was virtually unchanged in the years after the cameras were installed compared to the years prior to camera usage (see below).

Second, an analysis of the CHP's Statewide Integrated Traffic Records System (SWITRS) database shows that at least one, and possibly two, anomalies in the data that likely accounts for any change in the number of red light running collisions within the city. The data from 2009 shows a citywide 29% drop in collisions from the previous year and a 36% difference in the average number of collisions occurring in the previous seven years. It is highly unlikely that this drop in the number of collisions in the database reflects an actual change in the number of collisions that occurred in the city. More likely, the difference reflects a change in policy or data collection/data entry. An alternative explanation is that the drop in collisions is due to a change in traffic volume due to the economic recession. Whatever the cause, the reduction in collisions is most certainly not due to the effect of red light camera enforcement as this was a dramatic one year change which occurred a number of years after the cameras were installed. In 2012, there is a similar 27% drop in collisions from the previous year, with an additional 32% drop occurring in 2013. Again, it is highly unlikely that these kinds of dramatic

changes from year to year reflect an actual reduction in collisions. Overall, the number of collisions reported in 2015 is 61% less than the number reported in 2001. One would hope that this indicates a real improvement in traffic safety in San Mateo. Alas, it is not likely. Yet even if it does, it is highly unlikely that the presence of red light cameras at 3 intersections is responsible for the decrease.

ACCIDENT YEAR	SM Collisions Reported						Total Collisions	
	Collision Severity					Total	% change from Previous Year	% difference from 2001 – 2007 Average
	PDO	Fatal	Severe	Visible Injury	Complaint of Pain			
2001	828		22	186	363	1399		6.16%
2002	751	4	20	153	343	1271	-9.15%	-3.56%
2003	902		12	198	314	1426	12.20%	8.21%
2004	867	1	17	145	329	1359	-4.70%	3.12%
2005	802	5	15	127	266	1215	-10.60%	-7.80%
2006	838	6	14	124	294	1276	5.02%	-3.18%
2007	842		18	124	295	1279	0.24%	-2.95%
2008	741	7	21	123	295	1187	-7.19%	-9.93%
2009	527	4	17	74	224	846	-28.73%	-35.80%
2010	544	5	16	95	249	909	7.45%	-31.02%
2011	603	2	14	127	285	1031	13.42%	-21.77%
2012	475	6	14	68	192	755	-26.77%	-42.71%
2013	373	4	7	33	97	514	-31.92%	-61.00%
2014	346	2	6	39	117	510	-0.78%	-61.30%
2015	362	2	7	30	142	543	6.47%	-58.80%

Third, the staff report cherry picks the data to show a favorable comparison between years before and after the cameras were installed. Using the SWITRS database, we conducted an analysis of all RLR collisions occurring in San Mateo in the years before and after automated enforcement was implemented. We also calculated the number of RLR collisions as a percentage of all collisions occurring throughout the city. The results are reflected in the table below.

San Mateo RLR Collision Analysis			
ACCIDENT_YEAR	Total Collisions	RLR Collisions	RLR Collisions % of Total
2001	1399	40	2.86%
2002	1271	37	2.91%
2003	1426	44	3.09%
2004	1359	36	2.65%
2005	1215	22	1.81%
2006	1276	19	1.49%
2007	1279	37	2.89%
2008	1187	24	2.02%
2009	846	15	1.77%
2010	909	19	2.09%
2011	1031	27	2.62%
2012	755	14	1.85%
2013	514	0	0.00%
2014	510	0	0.00%
2015	543	1	0.18%
2001 – 2004	5455	157	2.88%
2007 – 2011	5252	122	2.32%

The results show that the change in red light running collisions for the city as a whole is relatively minor and certainly not of the magnitude claimed in the staff report. Further, the number and percentage of red light running collisions is actually higher in 2007, the first full year after cameras were installed compared to 2004, the last full year before ticketing began. Also, the percentage of red light running collisions in 2011, a full seven years after the first camera was installed, is virtually the same as in 2004, the year before automated enforcement began. Again, it is important to point out that these results are for the city as a whole and many factors affect the number of collisions, red light related and others, that occur from year to year.

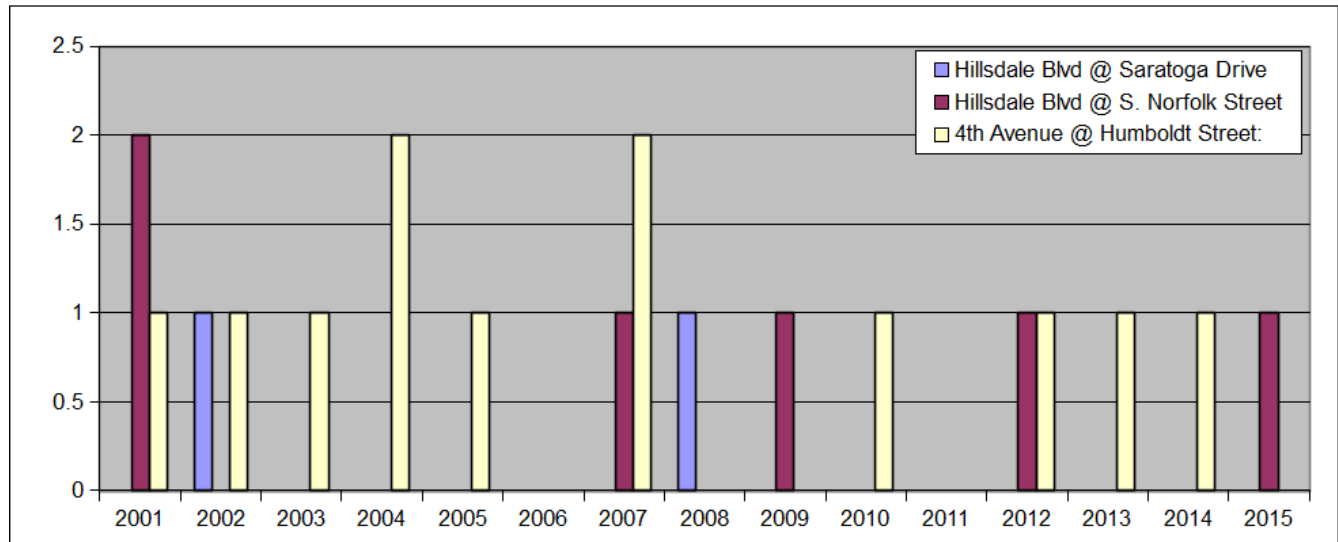
The staff's response is likely to be that we are using the SWITRS database for comparison and that the city does not report all collisions to the CHP. This may be true to some extent, so we conducted a comparison of collisions in both the city's database and the SWITRS database at the three red light camera intersections for the years 2002 – 2015 to see if the SWITRS database accurately reflects the number of collisions occurring in San Mateo.

Collisions Reported at RLC Intersections SWITRS vs SMPD								
YEAR	4th & Humboldt		Hillsdale & Norfolk		Hillsdale & Saratoga		All RLC Int	
	SWITRS	SMPD	SWITRS	SMPD	SWITRS	SMPD	SWITRS	SMPD
2002	4	4	7	6	13	12	24	22
2003	4	4	9	8	8	8	21	20
2004	5	5	9	8	8	8	22	21
2005	2	2	4	4	2	2	8	8
2006	9	9	6	6	7	7	22	22
2007	5	5	5	4	10	8	20	17
2008	2	2	8	5	2	1	12	8
2009	6	1	4	1	0	0	10	2
2010	4	4	2	2	6	1	12	7
2011	3	3	10	7	9	4	22	14
2012	0	2	4	7	3	2	7	11
2013	0	4	1	6	0	1	1	11
2014	0	5	0	6	0	2	0	13
2015	0	0	0	3	0	2	0	5
Total	44	50	69	73	68	58	181	181

Note that for the years 2002 – 2006 the number of collisions reported in both databases is approximately the same. 2007 and 2008 show slightly lower numbers in the SMPD database. From 2009 – 2011, the SMPD database reports significantly fewer collisions than the SWITRS database and from 2012 – 2015, the SMPD database reports significantly more collisions than SWITRS. For this reason, our analysis of citywide red light running collisions did not include the years after 2011 as we believe the number of collisions in the SWITRS database is under-reported for that time period. Finally, it is unlikely that the red light cameras would have little effectiveness in the seven years after installation, but all of a sudden begin having a significant effect starting in year eight. More likely, other factors not reported in the staff analysis account for any changes in red light running collisions in the more recent years. For these reasons, the claims of 63% fewer RLR collisions and 26% fewer related injuries is likely not accurate and paints a misleading picture of the true effectiveness of the RLC program.

What they haven't told you - Note that the staff report does not analyze red light running collisions at the three intersections equipped with red light cameras. This is likely due to the fact that such an analysis would show that the cameras have produced no safety improvement at those locations. The

chart below shows the number of red light running collisions at the three photo enforced intersections from 2001 through 2015.



Note the following:

Saratoga & Hillsdale

- The cameras were installed in early 2005 but only one red light running collision had occurred at this intersection in the previous 4 years. This is not a collision rate that would warrant the installation of red light cameras.
- There were just as many collisions (one) in the 4 years after the cameras were installed as in the 4 years before the cameras were installed.
- The one minor collision in 2002 did not involve a vehicle making a right turn but the city chose to put in a red light camera targeting mostly right turns on southbound Saratoga at Hillsdale.
- Over 60% of the red light camera tickets issued in San Mateo are issued at this one intersection approach where there was no red light running collision problem.
- The city also put in a camera targeting drivers going eastbound on Hillsdale (towards the highway entrance) even though no red light running collisions had occurred on that roadway going back to at least 2001.

Hillsdale at Norfolk

- In July of 2005 the city installed a red light camera at this location even though there had not been any red light running collisions there in over five years.
- After the cameras were installed in 2007, there have been four red light running collisions (through 2015).
- This is an **increase** in red light running collisions (though not statistically significant).

4th & Humboldt

- There was a slight average decrease in red light running collisions at this location although the change is not statistically significant.

Overall

- The chart above shows that the red light cameras have made little difference at the locations where they have been installed.
- If the red light cameras have not significantly reduced red light running collisions at the actual locations where they are being used, it is unlikely that they are responsible for a 63% citywide reduction in red light running throughout the city.

From the Staff Report - The intersections which were selected to receive automated enforcement equipment are those which experienced the highest occurrences of red light violations.

What they haven't told you - The intersections were chosen, most likely with the encouragement of the red light camera vendor, as they were the locations where the vendor estimated the most ticketing would occur, especially tickets for rolling right turns. These were, for the most part, not intersections with a red light running collision problem.

From the Staff Report - Right turn violations are most dangerous to pedestrians.

What they haven't told you - Staff continues to make this claim without any evidence whatsoever. We, however, conducted an analysis of all rolling right turn collisions that occurred in San Mateo from 2001 through 2015. These are the FACTS:

- **There were ZERO collisions involving pedestrians due to a rolling-right-turn in the entire 15 year period from 2001 - 2015.** (Although there were 2 pedestrian collisions cited under 21453b where the driver stopped first and then failed to yield properly.)
- At least going back to 2001 (the earliest data available) there has never been a fatality (including pedestrians and bicyclists) due to a rolling-right-turn.
- From 2001 through 2015, rolling-right-turn violations in San Mateo resulted in just 8 collisions, about 1 every two years. This represents approximately 0.08% (8/100th of 1%) of the 9800 collisions that occurred in the city during the 15 year period.
- The last rolling-right-turn collision in San Mateo listed in the SWITRS database occurred in November 2011, almost 4 ½ years ago.
- It is estimated that the City of San Mateo has issued approximately 42,000 tickets for rolling-right-turns at the intersection at Saratoga & Hillsdale although there has never been a collision caused by this violation at this location since at least 2001.
- **According to the collision data received from the San Mateo Police Department, since at least 2002, there has never been a collision at Hillsdale and Norfolk due to a driver making a rolling-right-turn. Yet, with the contract extension, staff is requesting that the City Council approve adding rolling right turn ticketing at this location.**
- For comparison, in the same 15 year period, six pedestrians were injured, some seriously, after being hit by bicyclists. Yet no one would seriously argue that ticketing cameras were needed to protect pedestrians from bicyclists.

From the Staff Report - Section 21453 (a) of the California Vehicle Code (CVC) reads, in part, “A driver facing a steady circular red signal alone shall stop....and shall remain stopped until an indication to proceed is shown...” This law applies regardless of whether the intersection is being monitored by a police officer or automatic photograph equipment.

What they haven't told you - A red light camera is capable of capturing a violation that occurs within an infinitesimally small fraction of a second, something a human being is incapable of perceiving and which has no effect on safety. This is one reason why red light camera enforcement is not the same as enforcement by a live officer.

From the Staff Report - It has been the City's general practice to add 0.2 seconds of time to the yellow lights in excess of the MUTCD guidelines.

What they haven't told you - This amounts to one half the blink of an eye. Staff would have you believe that they are being generous by adding in this additional time. While it does make a difference for a small fraction of drivers who would otherwise be unfairly ticketed by red light cameras, it does not fully account for the variations in drivers' abilities and roadway conditions which might require a tolerance of up to 0.5 seconds or more.

From the Staff Report - Traditional enforcement of red-light violations by police officers is very difficult because the officer must be in a position behind the red light to view the violation. Once a violation is observed, the officer must navigate through the red light to try and apprehend the violator. This action puts both the officer and motorist at risk.

What they haven't told you - Red light cameras are not the only safe way to enforce red light violations. Known as "Tattle Tale Lights" or "Rat Boxes", these small devices are attached to the top, bottom, or back of traffic signals. When the light turns red, a small blue light behind the signal illuminates. A police officer stationed behind the signal on the far side of the intersection can tell if someone has entered the intersection on a red light and then issue a ticket. This eliminates the need for the officer to pursue the offender through the intersection. A number of cities including Poway and Santa Clarita now use these devices instead of red light cameras. See: <http://bit.ly/1Tj1Hns> and <http://bit.ly/1WBkuxX>.

From the Staff Report - Analysis of this sample shows that a vast majority of citations (79%) were issued to violators who entered the intersection 10 or more seconds AFTER the light had turned red.

What they haven't told you - This is the most disingenuous statement made within the staff report. The reason the "late time" is so high for this sample is that the vast majority of the violations are for rolling right turns. Since these violations occur throughout the red interval, the average late time will be high. As shown above, rolling right turns result in so few collisions that they are almost negligible as compared to all other types of collisions. Unlike straight through violations, the time into red of a rolling right turn violation is relatively meaningless. This statistic was clearly included in the report in an attempt to shock the conscience of council members. It is a shameful attempt at misleading decision makers as to the danger imposed by the violations that occur at this location. As it is likely that Redflex, the city's vendor, assisted with the preparation of this report, it is possible that staff is also being misled by this statement. But the vendor knows full well how deceptive this statistic is and its inclusion in this report without a full explanation shows the duplicitous nature of the for-profit company that the city has contracted with.

It is no small surprise that the entire executive team of this company was forced to resign amid a bribery scandal in Chicago that resulted in the guilty plea of a number of those in leadership positions. And although the company has professed numerous times that it has cleaned up its act, the scandal that was claimed to be an isolated occurrence in one city has expanded to other states and other elected officials. It is telling that this company is still under investigation by the FBI.

From the Staff Report - The City of San Mateo has photo enforcement 24 hours a day, 365 days a year, for three (3) intersections. To provide the same level of service through dedicated traffic officers, the City would need to hire 13 additional police officers at a cost of over 3 million dollars.

What they haven't told you - The entire argument about how much it would cost for full time officers to monitor intersections 24 hours a day, 365 days a year is wrong-headed because it presupposes that this level of enforcement is necessary and makes the public safer. As shown above, it is not and it does not. First, you can't compare the cost of a highly trained police officer with a red-light camera. Police officers on patrol perform many public safety functions, not only in terms of traffic enforcement but in terms of other crime reduction and prevention as well. The two are not equal and you can't compare the costs of each in this manner. To do so is an insult to police officers.

Second, the city would never assign a police officer to stand watch at an intersection 24 hours a day, 7 days a week, 365 days a year because it simply isn't necessary. Comparing the cost of something you would never do to the cost of the red-light camera program is a bogus analogy.

Unfortunately, rather than increasing efficiency, police resources are being wasted by the red-light camera program. Engineering solutions such as longer yellows can reduce violations and make intersections safer and the police officers' time can be put to better use than sitting at a computer monitor approving citations all day or appearing in court to testify to violations that need never have occurred or pose no threat to public safety.

Conclusion

Considering that there are still many unanswered questions about the effectiveness of the red light camera program and the ethics of the city's vendor, city officials should seriously consider whether it is wise to lock the city into another two year contract with Redflex. At the very least, council members should ensure that the city has the option to cancel for convenience with no penalty. The contract signed in 2009 amortized the cost of the system over 60 months (5 years). Council may wish to confirm with staff that since this time has expired, going forward, the city has the ability to cancel without penalty.

As for Item 3 of Amendment 4, which permits Redflex to begin ticketing for rolling-right-turns at Eastbound E. Hillsdale Blvd & Norfolk Street, City Council should strike this provision. As explained above, rolling-right-turns, while violations of the law, rarely ever result in collisions, and in the extremely rare instance when they do, those collisions are minor. Further, there is no evidence that a rolling right turn has resulted in any injuries to pedestrians and the city's own data shows that no rolling right turn collisions have occurred at the location designated for this added enforcement.

Finally, while the city does not control the amount of the fine, which is currently almost \$500, the city has full control over whether or not it adds additional ticketing of this type. It would be hypocritical to express concern and disagreement with the amount of this fine while at the same time approving a change to the red light camera program that increases ticketing for this violation.

Your consideration of the above is greatly appreciated.

For additional info, contact:

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