CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

Date: October 17, 2019

To: Honorable City Council
c/o City Clerk, Room 395
Attention: Honorable Mike Bonin, Chair, Transportation Committee

From: Seleta J. Reynolds, General Manager
Department of Transportation

Subject: **DOCKLESS BIKE/SCOOTER SHARE PILOT PROGRAM UPDATE (CF #17-1125)**

SUMMARY

As directed by the City Council (Council) in Council File 17-1125, this report provides a quarterly update on the One-Year Dockless On-Demand Personal Mobility Pilot Program and provides updates on communications, safety, and operations.

RECOMMENDATION

RECEIVE and FILE this report.

BACKGROUND

On June 12, 2019, the Los Angeles Department of Transportation (LADOT) provided an initial overview of the One-Year Dockless On-Demand Personal Mobility Pilot Program. This second report back provides an overall update of the program.

DISCUSSION

The Dockless On-Demand Personal Mobility Pilot Program (Program) launched March 15, 2019 and is halfway complete. The Program authorizes a total of 36,170 dockless vehicles, and LADOT observes over 30,000 dockless vehicle trips daily. In the month of September, LADOT observed over one million rides. Despite ongoing ridership growth, the number of 311 Service Requests continues to decline from an all-time high of 1,806 Service Requests in May to 1,320 Service Requests in August.

This report provides program updates on communications, safety, and operations.

Outreach and education

LADOT recognizes the need to clearly communicate program goals and priorities to the public and other interested parties and conducts ongoing outreach to educate and hear community concerns.

Community Outreach

LADOT partnered with the Los Angeles Police Department (LAPD) for community outreach, attending five regularly scheduled Community Policy Advisory Board (CPAB) meetings in the Central, Valley, and West Traffic Divisions. CPAB participants voiced their concerns with LAPD and LADOT jointly, allowing for better coordination between the departments. Primary concerns include sidewalk riding, vehicle parking, and underage riding. LADOT will continue to attend CPAB monthly meetings Citywide.

Education Campaign

LADOT purchased ad space on Metro buses, DASH buses, and Metro bus shelters as part of the "Take the Friendly Road" campaign. Hundreds of Metro and DASH buses displayed interior bus cards. Metro bus shelters displayed safety campaign posters. Safety ads included messaging from the "The E-scooter Rules To Know Before You Go" campaign jointly run with the City of Santa Monica and included reminders such as: park responsibly, only one rider per scooter, ride on the street, driver's license required, helmet use recommended, and file service requests through MyLA311.

Safety

Safety is a top priority for the Program. LADOT continues to learn and make adjustments during the pilot, to address any safety concerns. LADOT's response to some key concerns follow.

Underage Riding

Under the Program Rules and Guidelines, users must be a minimum of 18 years old with a valid driver's license to operate a vehicle, but there is no requirement to physically scan a driver's license to verify age. Operators that do require a valid driver's license scan suggest this requirement drives underage users to other operators without the scanning requirement, but does not necessarily reduce the number of underage riders overall. LAPD continues to enforce underage riding, evident through the 82 citations issued for violating California Vehicle Code (CVC) Section 21235 (c) for the operation of a motorized scooter without a helmet if the operator is under 18 years of age.

Sidewalk Riding

Operators are complying with the permit requirement to display "no riding on sidewalks" in 48-point font visible on the platform of each vehicle. Additionally, each operator uses in-app messaging to remind the user that sidewalk riding is illegal, prior to use. Based on feedback from public meetings, LADOT updated MyLA311 on July 21, 2019 to include a drop-down option to report sidewalk riding. Since the update, almost five percent (4.8%) of the requests received through MyLA 311 reported sidewalk riding. LADOT will use data from this new function to inform additional resource deployment.

LADOT worked with Council District 5 to install 43 "no sidewalk riding" pavement markings on the sidewalk along 3rd St. between La Cienega Boulevard and Fairfax Avenue, Beverly Boulevard, between La Cienega Boulevard and Fairfax Avenue, and Melrose Avenue between Crescent Heights Boulevard and La Brea Avenue. LADOT will continue to study the success of this effort for the duration of the pilot and may consider installing additional pavement markings in high traffic areas of the City.

LAPD issued 1,053 citations for e-scooter infractions from the beginning of the calendar year through September 9, 2019. Of those citations, 890 (85%) were for riding on the sidewalk. Attachments 1 and 2 detail the distribution of traffic violations by Traffic Division and by California Vehicle Code Section.

LAFD and LAPD Incident Reporting

The Los Angeles Fire Department Emergency Medical Services Bureau (LAFD EMSB) provided LADOT updated year-to-date e-scooter injury statistics. The LAFD EMSB oversees the prehospital care provided by 2500 firefighter/EMTs and 1200 firefighter/paramedics, who respond to over 1000 medical calls and transport over 600 patients to area hospitals each day. Since the beginning of the calendar year through the week ending September 14, 2019, LAFD EMSB reported a total of 204 incidents involving e-scooters:

- 89 Patients transported via Advanced Life Support Ambulance (staffed by Paramedics)
- 58 Patients transported via Basic Life Support Ambulance (staffed by EMTs)
- 57 Patients Treated by Paramedics or EMTs on scene, but not transported to the hospital by LAFD ambulance.

Of the incidents reported by LAFD from January 1, 2019 to September 11, 2019, a total of 223 e-scooters incidents occurred (for reporting purposes, this number also includes electric mobility wheelchairs), which represents less than 2% of all incidents reported. This report includes motor vehicle to motor vehicle incidents of which make up the majority of incidences at 6,659.

The LAPD traffic group summary considers e-scooter collisions a new form of transportation and tracks them separately. Current data implies that e-scooter collisions account for 0.5% of reported crashes citywide. The summary includes traffic collisions from the beginning of the calendar year through September 9, 2019. Of the 213 traffic collisions involving electric devices, 190 involved e-scooters colliding with a vehicle, most of which (165 of 213 incidents, or 77%) occurred in the West Traffic Division. LAPD reported 35,983 total traffic collisions Citywide via the Citywide Traffic Statistics with year-to-date statistics from the beginning of the calendar year through the week ending August 24, 2019, which do not include collisions involving e-scooters.

As part of LAPD's regular reporting of Vision Zero statistics regarding traffic fatalities, from the beginning of the calendar year through the week ending September 6, 2019, LAPD reported 162 traffic fatalities. These include 89 pedestrian fatalities, 62 vehicle passenger fatalities, 11 cyclist fatalities, and 0 e-scooter fatalities. LADOT is aware of one scooter fatality which occurred in early morning hours in Hollywood. LADOT staff continues to monitor and communicate with both LAPD and LAFD regarding these incidents.

Operator Website Law Enforcement Portal

As directed by Council, for the purpose of enabling law enforcement to access information specific to crimes under investigation, LADOT facilitated a meeting with LAPD and permitted operators on September 12, 2019. Each operator provided LAPD a step-by-step guide on how to access their website law enforcement portal, and LAPD staff asked questions, provided input, and for some operators, met the safety liaison in person. LAPD will use each operator's law enforcement portal to request information on incidents under criminal investigation. Operators also described the process to submit a formal request and the different requirements for each type of request. While the ease of use and

quality of the portals vary, LAPD can use them to submit warrants, location of incident, pictures, time of incident, etc.

OPERATIONS

LADOT continues to monitor dockless vehicle ridership for trends. For the week of September 10 - September 17, 2019, operators deployed a daily average total of 22,424 vehicles (62% of the 36,170 permitted). From April 1, 2019 - September 30, 2019, LADOT observed 4,960,892 total trips and continues to see approximately over one million rides per month (Attachment 3).

Gyroscope Technology Feasibility

LADOT continues to assess the latest advancements in e-scooter technology. On July 22, 2019 LADOT asked permitted operators to provide an update on their gyroscope technology. Gyroscope technology may be used to detect when a scooter is standing upright or tipped over. Responses from operators varied, but generally showed improvement in technology or vehicle design so tipping is less likely, and operators are exploring how to implement this technology as shown in the response summary (Attachment 4). LADOT posted this question to the National Association of City Transportation Officials (NACTO) to solicit peer responses from other cities and industry professionals working toward implementing this technology. The San Francisco Municipal Transportation Agency (SFMTA) stated lock-to technology helped mitigate and nearly diminish the complaints for tipped over scooters. Lock-to technology enables a scooter to be locked to existing bicycle infrastructure such as a municipal bike rack and is usually in the form of a cable lock. LADOT continues to track and monitor best industry practices to implement in the Program as needed.

Dockless On-Street Parking Corrals

As instructed by Council, LADOT is reporting on the feasibility of installing bicycle and scooter corrals in high traffic corridors and instituting geofencing around those corrals to require their use in high residential density areas. LADOT is developing a standard plan for dockless on-street parking corrals and the Geometric Design team is creating new symbols and signage for scooter parking.

In the Venice Special Operations Zone, LADOT is piloting digital parking zones in the existing bicycle corrals at Main Street/Navy Street and Washington Boulevard/Speedway. Although operators do not require users to end trips at these locations, operators are required to deploy their vehicles at these locations from 5:00 am to 10:00 am and encourage users to drop off vehicles in the identified zones. LADOT will continue to monitor the use and effectiveness of the digital parking zones to determine if they are feasible for wider deployment

Pilot Program Evaluation

LADOT released a Task Order Solicitation (TOS) to evaluate the compliance, performance, and management of its Dockless On-Demand Personal Mobility Pilot Program, and awarded it to Nelson\Nygaard and Toole Design in July 2019. The consultant team started work in August 2019 and will develop an equitable micromobility evaluation methodology, performance monitoring program, and data management plan. In addition, the consultant will generate new compliance tools to best manage future iterations of the dockless program and help inform our dockless policies beyond the pilot phase

Enforcement Ordinance / Graduated Penalty Structure

In June 2019, Council requested City Attorney to work with LADOT to prepare an ordinance establishing a graduated penalty structure for enforcement of Dockless Personal Mobility permit violations. In order to determine next steps and implement a graduated penalty structure, LADOT is engaged in two workstreams to determine the City's enforcement approach.

As mentioned above, in July 2019, LADOT executed a contract with Nelson\Nygaard and Toole Design to create a comprehensive framework for evaluating compliance with the 1-year dockless permit program. The scope includes reviewing existing field compliance efforts, using digital enforcement tools, scanning enforcement and compliance vendors, implementing a monthly report card to create transparency to the public on operator compliance, and establishing a review board made up of cities in the U.S. and worldwide that are managing dockless mobility programs.

Second, the City Attorney advised that to establish a fine, the City must also establish an appeals process. LADOT is exploring the feasibility and resources required to implement an appeals process. Based on this feedback, LADOT is working with the City Attorney and Nelson\Nygaard to evaluate a comprehensive enforcement framework that contemplates fines, appeals, fleet reductions, suspensions, and permit revocations. The review board will play an important role in providing feedback on the approach.

Special Event Case Studies

LADOT receives frequent requests to prohibit dockless mobility operations at special events related to safety concerns. To support safe special events, LADOT requires operators to implement digital management tools (geofences). For three special events (Ciclavia, Nisei Week, and El Grito), after event organizers notified LADOT of the need, the Department communicated the specialized event policies to operators. Requests included to create a geofence around the event route to throttle down vehicle speeds for Ciclavia, to create a no riding and no parking geofence for Nisei Week with a request to do a full sweep to remove vehicles along the parade route, and to create a no riding and no parking geofence where there may be high pedestrian activity for the "El Grito" event held at Grand Park.

The team communicated these special event needs and geographic restrictions to the operators digitally via GIS shapefiles, ensuring quick and seamless communications and limited issues during each event. In order to keep up with the demand, LADOT is working on a formal process to submit a request for a temporary geofences for special events.

311 Service Requests for Dockless Personal Mobility

From March 1, 2019 through August 31, 2019, MyLA311 users submitted 7,910 dockless mobility service requests. Over half of the service requests submitted specified Bird (2,382) or Lime (2,078) e-scooters (Attachment 5), which is consistent with the predominance of these operators in the market.

Currently, LADOT requires each operator to complete and close out their service requests within two hours. Attachment 6 details monthly average close out times for each operator. LADOT will continue to monitor service request close out times to ensure they meet the two-hour requirement.

MyLA311 now also includes an option to report sidewalk riding. From July 21, 2019 through August 31, 2019, MyLA311 users submitted 1,763 total Service Requests (Attachment 7). Of those Service Requests, 85 reported sidewalk riding, which accounts for 4.8% of all Service Requests during that time period.

Data Handling and Privacy

As part of their compliance, performance, and program management contract, Nelson\Nygaard will also support the creation of a Core Advisory Board (CAB). Made up of frontline community-based-organization leaders that broadly represent equity and social-justice stakeholders, the CAB will inform departmental practices around data, privacy, and equitable service.

Equitable Access

Operators are required to provide programs or membership options to provide equitable access to their services, including pay-by-cash options, non-smartphone options, and plans for low-income customers. Operators promote their equity programs through a variety of means, including flyers, hang tags on vehicles, outreach events, on their website, and social media.

LADOT works with each of the mobility operators to improve the quality and compliance of data sharing, which allows the Department to gain a clearer understanding on how operators are deploying their vehicles within Disadvantaged Communities (DAC) and within DACs within the San Fernando Valley.

When applying for permits, LADOT gave operators the ability to increase their vehicle caps through deployment in the DAC. While not all operators took advantage of this option, LADOT observes an average of approximately 7,000 - 8,000 vehicles deployed in DACs City wide. However, few operators currently deploy in the San Fernando Valley DAC, pointing to a greater need for incentives for deployment in this area.

FISCAL IMPACT

There is no fiscal impact as this report is informational.

SJR/MP:je

Attachments

Attachment 1: Total E-Scooter Traffic Violation Citations Issued (All Code Sections)

LAPD Traffic Division	Number of Citations*
Central	815
West	197
South	32
Valley	9
Total	**1,053**

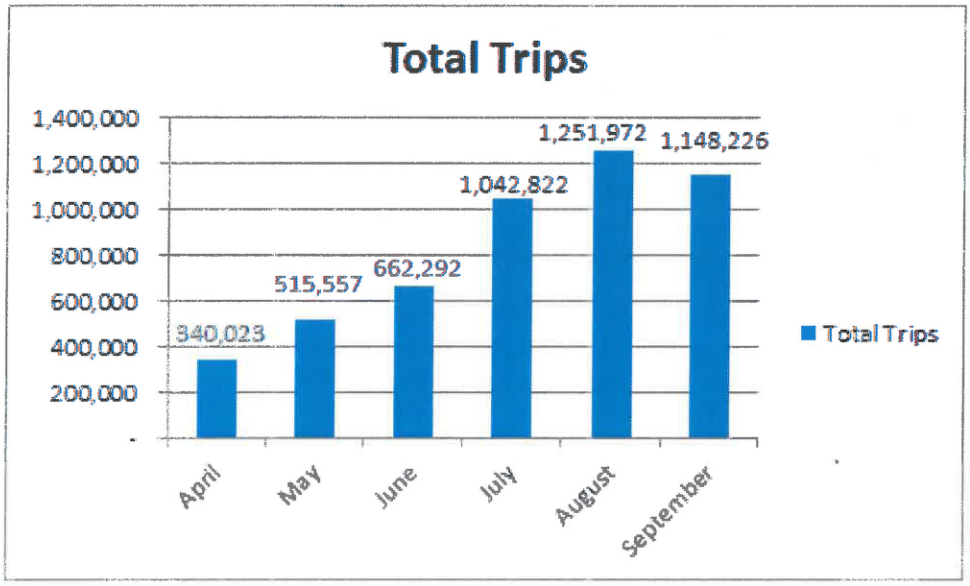
* 01/01/2019 - 09/09/2019

Attachment 2: Citations by California Vehicle Code Section

California Vehicle Code (CVC) Section	Definition	Number of Citations
21228 (a)	Any person operating a motorized scooter upon a highway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride as close as practicable to the right-hand curb or right edge of the roadway, except under the following conditions : (a) When overtaking and passing another vehicle proceeding in the same direction. (b) When preparing for a left turn, the operator shall stop and dismount as close as practicable to the right-hand curb or right edge of the roadway and complete the turn by crossing the roadway on foot, subject to the restrictions placed on pedestrians in Chapter 5 (commencing with Section 21950). (c) (1) When reasonably necessary to avoid conditions, including, but not limited to, fixed or moving objects, vehicles, bicycles, pedestrians, animals, surface hazards, or substandard width lanes, which make it unsafe to continue along the right-hand curb or right edge of the roadway, subject to Section 21656. (2) For the purposes of paragraph (1), a "substandard width lane" is a lane that is too narrow for a motorized scooter and another vehicle to travel safely side by side within the lane. (d) Any person operating a motorized scooter upon a highway that carries traffic in one direction only and has two or more marked traffic lanes may operate the motorized scooter as near the left-hand curb or left edge of that roadway as practicable. However, when preparing for a right turn, the operator shall stop and dismount as close as practicable to the left- hand curb or left edge of the highway and complete the turn by crossing the roadway on foot, subject to the restrictions placed on pedestrians in Chapter 5 (commencing with Section 21950).	20
21235 (a)	Operate a motorized scooter unless it is equipped with a brake that will enable the operator to make a braked wheel skid on dry, level, clean pavement.	13

21235 (b)	Operate a motorized scooter on a highway with a speed limit in excess of 25 miles per hour unless the motorized scooter is operated within a Class II or Class IV bikeway, except that a local authority may, by ordinance or resolution, authorize the operation of a motorized scooter outside of a Class II or Class IV bikeway on a highway with a speed limit of up to 35 miles per hour. The 15 mile per hour maximum speed limit for the operation of a motorized scooter specified in Section 22411 applies to the operation of a motorized scooter on all highways, including bikeways, regardless of a higher speed limit applicable to the highway.	7
21235 (c)	Operate a motorized scooter without wearing a properly fitted and fastened bicycle helmet that meets the standards described in Section 21212, if the operator is under 18 years of age.	82
21235 (d)	Operate a motorized scooter without a valid driver's license or instruction permit.	23
21235 (e)	Operate a motorized scooter with any passengers in addition to the operator.	18
21235 (g)	Operate a motorized scooter upon a sidewalk, except as may be necessary to enter or leave adjacent property.	890
Total		1,053

Attachment 3: Total Trips Citywide by Month (4/1/19-9/30/19)



Attachment 4: Gyroscope Technology Feasibility Operator Responses

Page 8 in the Parking Section of the Dockless On-Demand Personal Mobility Rules & Guidelines states, "c) All dockless vehicles within reasonable timeframe shall come equipped with technology that would prevent operators from ending a ride if the vehicle is not standing upright."			
Company	Is your fleet currently equipped with this technology (please make the distinction between bikes/scooters, and if entire fleet is equipped with this technology)? If so, what are the technical requirements for this and how long does it take to detect a tipped scooter?	Is your fleet capable of being equipped with this technology?	When, if requested, can company your update your fleet to be equipped with this technology?
Bird	Bird requires every rider to submit photo at the end of their ride. Every bird vehicle has tip detection it contains several sensors, including a gyroscope, that checks in every 30 seconds when idle or 5 seconds when being ridden, and alerts them when a vehicle is tipped over. Bird uses these signals to reposition tipped vehicles, and proactively sweep high incident areas. Namely Venice and DTLA.	Bird has invested heavily in innovating and evolving their technology. Their latest vehicle, Bird One, features a low center of gravity and strong kick-stand. An analysis of Birds Ones on the street using their tip detection has resulted in the fleet spending 99% of the time on the street standing upright.	Bird has technology that alerts them when a scooter has been tipped over.
Bolt	Bolt's current fleet does not have this technology and will need to be retrofitted or replaced with future versions of scooters that include this technology.		Bolt does not have technology, but will have for future releases, but they are in the testing process.
JUMP	JUMP's e-bikes are equipped with lock-to technology that enables users to lock the bike to city infrastructure. This lock-to feature helps to encourage upright parking and helps to prevent bikes from tipping over after they have been parked.	JUMP's next generation scooter will be more robust and heavier, encouraging upright parking. In the future, they are exploring additional technology to innovate and iterate on design improvements.	JUMP's scooters do not currently have this technology but are currently working on it. JUMP's e-bikes have lock-to technology but may not have full technology yet.

Lime	**Have ability to detect a tipped over scooter with information they receive via the accelerometer, which all scooters are equipped with. The scooter sends its telemetry information to the server, including this tip over data, every minute or so but requires scooter to have battery, have signal, etc.**		**Lime has technology.**
Lyft	**Every Lyft scooter has an inertial measurement unit (IMU) chip in its proprietary IoT device. This** **chip measures the scooter's absolute angle relative to the ground, and reports this value back to Lyft's server every minute, or even more often when the scooter is in a ride. These measurements enable Lyft's Operations Leads to identify scooters that are tipped at an angle of more than 65 degrees to either side, and inform Field Associates to correct this poor parking** **behavior to promote public safety and accessibility.**	**In the month of July, approximately 8% of Lyft's on-ground scooters, on average, are tipped at any given time across the LA region. We can filter to visualize these scooters in our real-time mapping software to understand where we need to more frequently monitor or address certain problem areas.**	**Lyft has technology.**
SherpaLA	**Requires photo at the end of their trip. Vehicles have tracking and sensors that allow them to identify when a vehicle has been tipped over, at which a fleet team is sent out.**	**Purchased Sherpa Zero that provide a superior experience for riders and cities.**	**Sherpa's fleet already is equipped with technology on the software and vehicle level to identify when a vehicle has been tipped over.**

Spin	Entire fleet is equipped with the hardware (gyroscope / accelerometer). Internal engineering team still needs to create the software that will enable Spin to use this hardware for detecting tipped scooters and communicating that information back Spin. Once the system is activated, it will be able to communicate tipped scooters in real-time (less than 10-second intervals).	Yes, the entire fleet is capable of having this functionality	This is already on the agenda for Spin's engineering team. Can take up to 60 days to have created, tested, and implemented across the fleet. The timeline is not certain because there are other projects ahead of this item in the engineering queue.
Wheels	The current version of the bike does not have this capability.	Retrofitting their existing fleet with this technology would be cost prohibitive and likely take 6 months.	Currently, building technology into the new version of the bike that will be able to determine bike orientation in real time to prevent end ride and also be able to dispatch field operations in real time to correct knocked over bikes. The next generation bike will be released in Q4.

Attachment 5: MyLA 311 Service Requests by operator

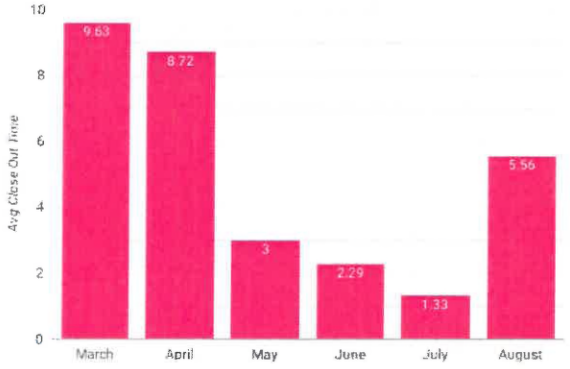
Operator	Number of Service Requests (3/1/19-8/31/19)
Bird	2,382
Bolt	43
Jump	1,225
Lime	2,078
Lyft	787
Sherpa	63
Spin	101
Transportation Technology*	320
Wheels	911
Grand total	**7,910**

* Service requests are routed to the Bureau of Transportation Technology for requests where a constituent reports side walk riding or does not know or provide the name of the responsible company.

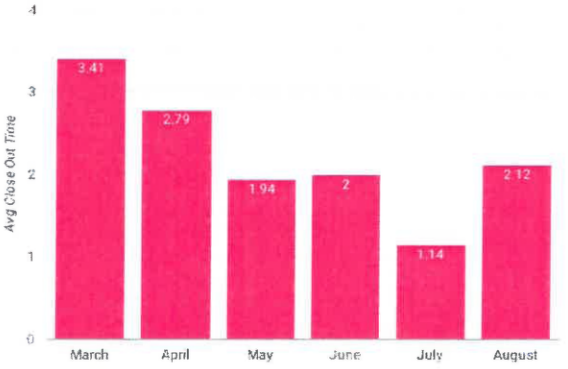
Attachment 6: MyLA311 Service Request Average Close Out by operator

Note: Over the course of the program, operators showed progress in improving their close out times. Some requests may take longer than 24 hours to complete due to technical issues (e.g. operator issues closing Service Request due to integration errors with MyLA311 or pulling Service Requests every 2 hours or longer) or due to the nature of the request (e.g. vehicle in the Venice Canals). These service requests are noted and filtered out of the average. When filtering out requests lasting over 24 hours the average close out trends are generally the same.

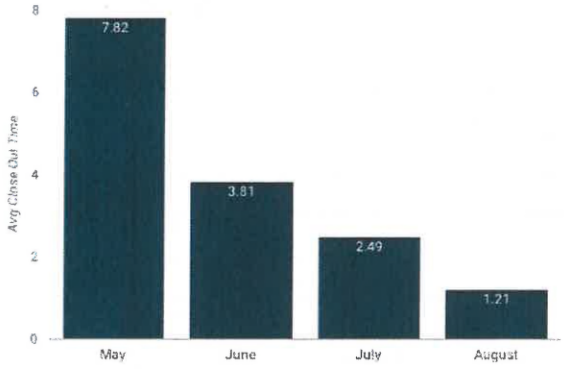
Lyft Monthly Average



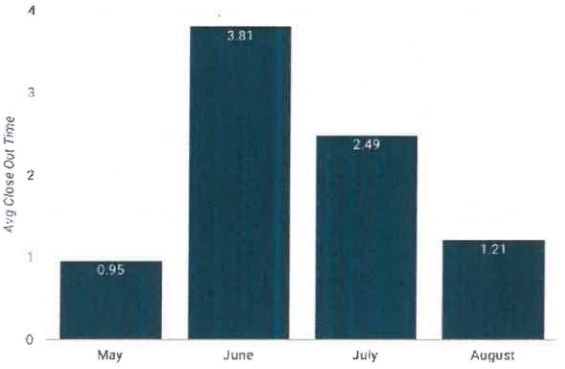
Filtered Lyft Monthly Average*



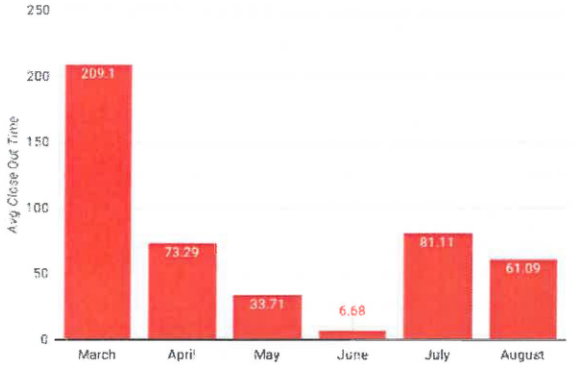
Sherpa Monthly Average



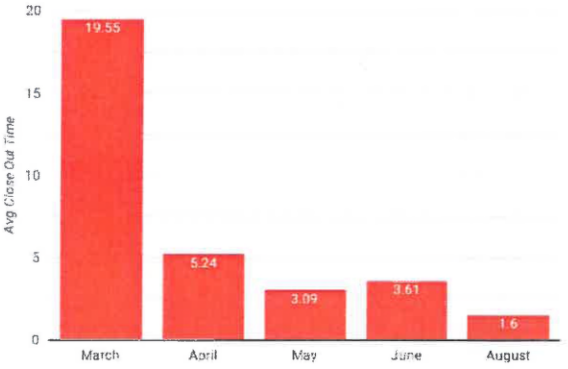
Filtered Sherpa Monthly Average*



Spin Monthly Average

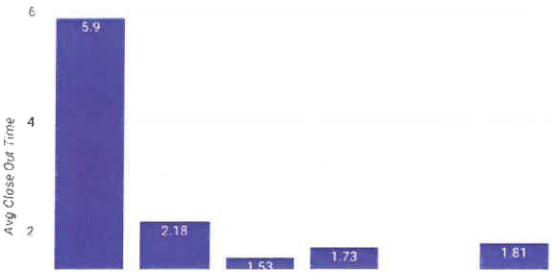


Filtered Spin Monthly Average*

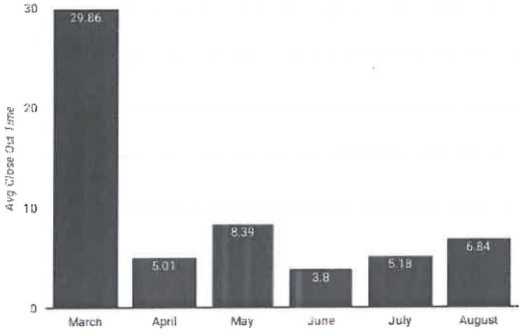


Wheels Monthly Average

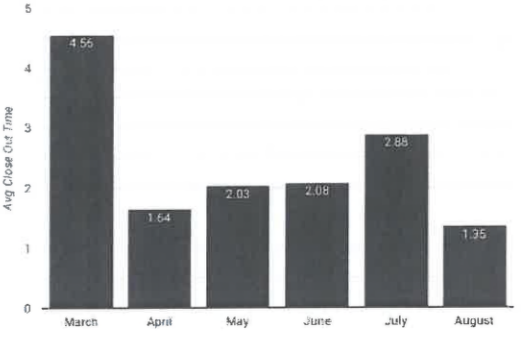
Filtered Wheels Monthly Average*



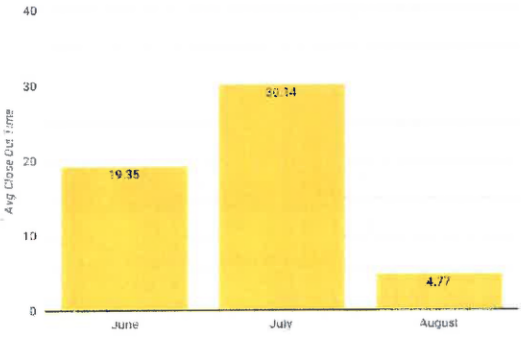
Bird Monthly Average



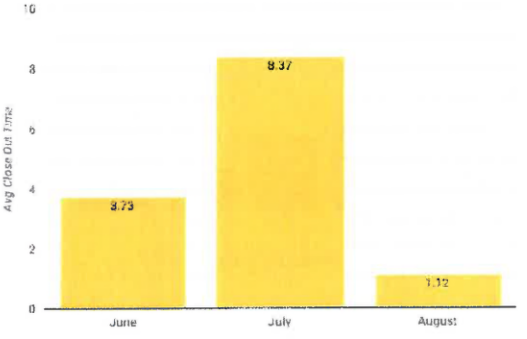
Filtered Bird Monthly Average*



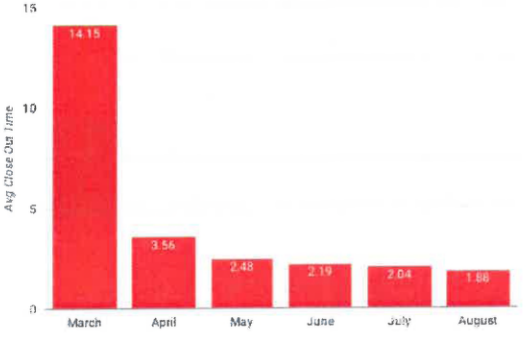
Bolt Monthly Average



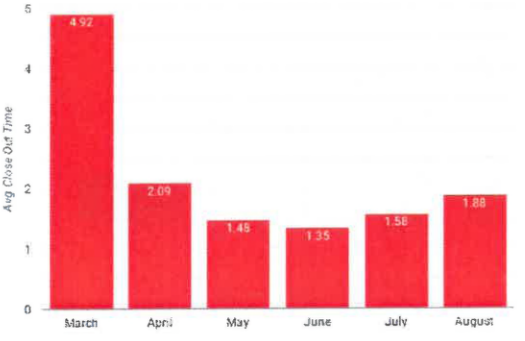
Filtered Bolt Monthly Average*



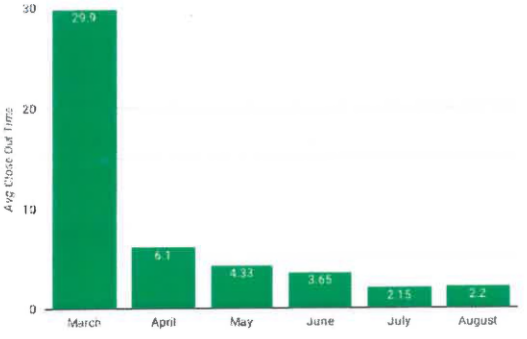
Jump Monthly Average



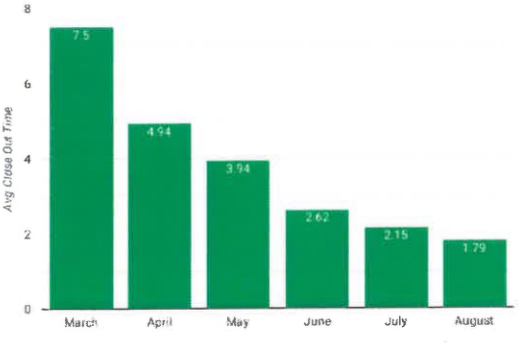
Filtered Jump Monthly Average*



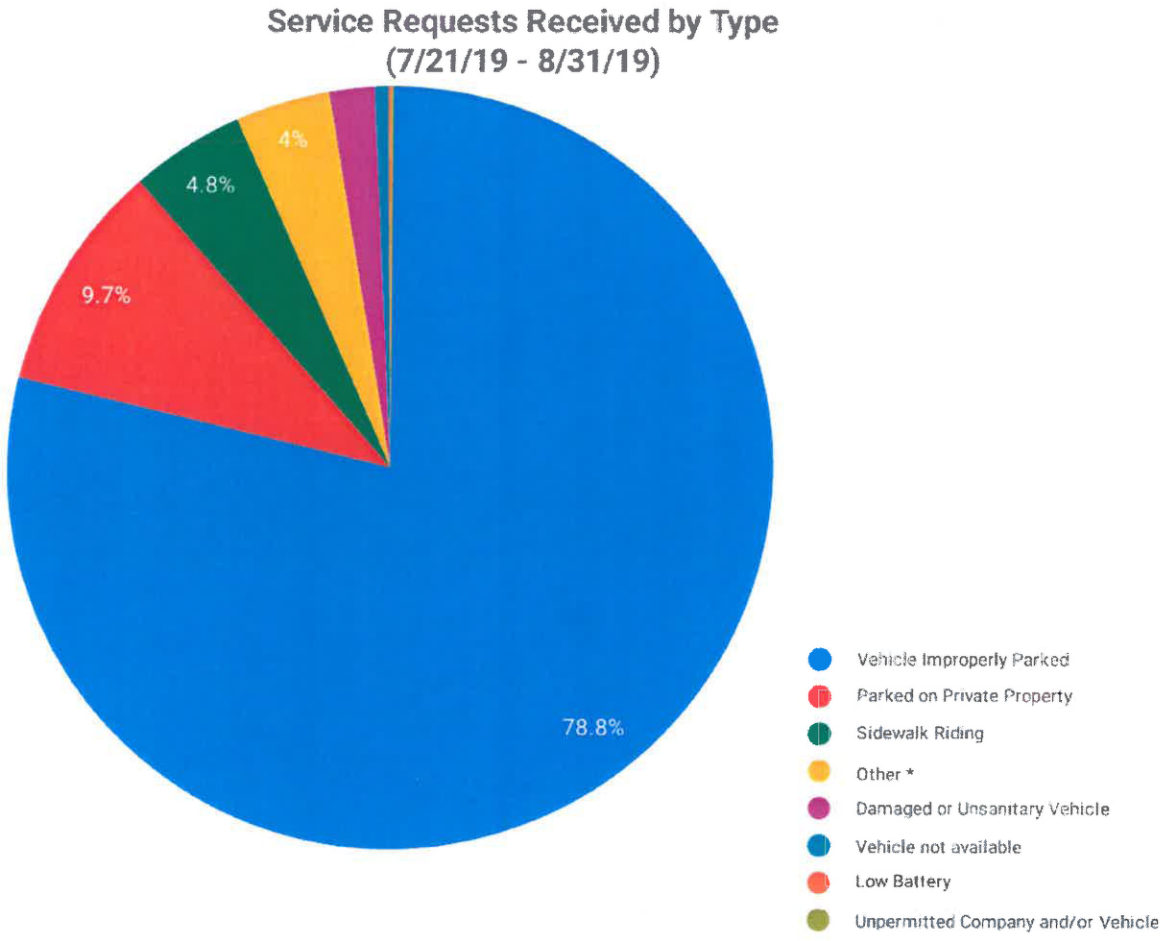
Lime Monthly Average



Filtered Lime Monthly Average*



Attachment 7: Service Requests by Type



Service Request Type (7/21/19 - 8/31/19)	# of Service Requests	Percent of total
Vehicle improperly parked	1,389	78.79%
Parked on Private Property	171	9.7%
Sidewalk Riding	85	4.82%
Other *	70	3.97%
Damaged or unsanitary Vehicle	34	1.93%
Vehicle not available	10	0.57%
Low Battery	2	0.11%
Unpermitted Company and/or Vehicle	2	0.11%
Grand total	**1,763**	**100%**

*includes requests that a constituent may not know how to categorize or do not fall within the other categories (E.g. vehicle in Venice Canal)