

To: Kim Wever, C/CAG
From: Foursquare ITP
Date: September 6, 2022
Re: San Mateo Micromobility – Program Guidelines Technical Memorandum

CONTENTS

Executive Summary.....	3
Existing Micromobility Regulatory Framework	3
Recommended Program Guidelines and Requirements.....	3
Program Rollout and Expansion	4
Risk Mitigation.....	4
Existing Micromobility Regulatory Framework.....	5
Statewide Regulations.....	5
Vehicle Types and Equipment Regulations	5
Regulations on Where People Can Ride.....	6
Regulations on Where People Can Park.....	6
Other Restrictions.....	7
Insurance Requirement	7
Fees and Enforcement.....	8
Regulatory Points of Conflict.....	9
Recommended Program Guidelines and Requirements	9
RFP Procurement over Permit Program.....	10
Types of Vehicles Permitted.....	10
Rider Regulations.....	11
Vehicle Parking Regulations	12
Speed Limits	14
Age Restrictions.....	14
Regulations on Helmets.....	14
Regulations on Fleet Size.....	15
Insurance and Indemnification Requirements.....	16

Data Sharing, Reporting Requirements, and User Privacy	19
Contract Length	22
Vehicle Maintenance and Inspection Requirements	23
Rebalancing Requirements.....	24
Geographic Coverage Requirements.....	24
Customer Service and Complaint Resolution Standards	26
Equity Programming.....	27
Enforcement Requirements	29
Program Fees.....	30
User Fees	31
Subsidy and Revenue Sharing.....	32
Program Rollout and Expansion.....	34
Adding or Eliminating Jurisdictions from the Program.....	34
Contractual Relationships Between Participants	35
Evaluating Pilot Performance	35
Mitigating Risk	36
Liability Risks.....	36
Operator Exit	37
Funding Risk.....	37
Conclusion.....	37

Executive Summary

The following memorandum provides detailed program recommendations and guidelines for implementing a regional shared micromobility pilot in San Mateo County. The guidelines build off the technical findings and recommendations developed for this study as well as stakeholder input gained through meetings and presentations with potential partners. This report is divided into the following sections:

- **Existing Micromobility Regulatory Framework:** A review of state and local micromobility regulations that could impact the implementation of a program in San Mateo County
- **Recommended Program Guidelines and Requirements:** Outline of technical requirements and guidelines to be incorporated into a future request for proposals (RFP). This information is supplanted by examples of current practice across the Bay Area and elsewhere
- **Program Roll-out and Expansion:** Discussion of how a future micromobility pilot program could be expanded over time.
- **Mitigating Risk:** Discussion of strategies to mitigate program risk.

Existing Micromobility Regulatory Framework

Today only the City of San Mateo and Redwood City have established micromobility ordinances in the county. Millbrae and Burlingame have program requirements identified through an RFP which is has yet to be awarded at the time of writing. After reviewing these existing documents, the only major point of conflict between these established regulations is that while all communities permit bikeshare (including e-bikes), scooters are presently only permitted in Redwood City. Other differences between regulations, such as minimum insurance requirements, could be easily reconciled through a new regional program.

Recommended Program Guidelines and Requirements

The wider study envisions that a regional micromobility program be established as a pilot, implemented through an RFP to select a vendor who would own and run a local program. This report outlines an inventory of recommended program guidelines and performance standard, which is summarized in **Table 1**. Discussion around each topic includes an overview of options, their pros and cons, examples form other jurisdictions, and specific recommendations for the pilot micromobility program in San Mateo County.

Table 1: Summary of Program Guidelines

Topic	Description
Types of Vehicles Permitted	Recommended minimum technical requirements for micromobility vehicles, including for pedal-assist e-bikes and e-scooters.
Rider Regulations	Outlines rules for where micromobility vehicles are permitted to be operated based on existing state and local regulations.
Vehicle Parking Regulations	Parking regulations with which vendor and riders must comply. Modeled closely on existing standards outlined in area micromobility ordinances
Speed Limits	Sets maximum electrically-assisted speed for devices to 15 mph for scooters and 20 mph for bicycles
Age Restrictions	Outlines state age restrictions for scooters and e-bicycles.
Fleet Size	Recommends initial fleet size of 500 vehicles, with specific minimum limits set systemwide and per operating jurisdiction.

Topic	Description
Insurance and Indemnification Requirements	Sample insurance and indemnification requirements taken from other local micromobility programs.
Data Sharing and Frequency	Describes when and how data is to be shared with the program manager, participating jurisdictions and the public. Includes language requiring adoption of existing data standards.
Contract Length	Recommends a one-year pilot contract with renewal options.
Vehicle Maintenance and Inspection Requirements	List of maintenance and inspection requirements to ensure system is in proper working order.
Rebalancing Requirements	Defines rebalancing for the purpose of the RFP and outlines the types of information on rebalancing a respondent should provide in their proposal.
Geographic Coverage	Proposes vehicle distribution requirements based on jurisdiction boundaries and MTC Equity Priority Communities.
Customer Service and Complaint Resolution Standards	Defines standards for customer service, including issue response time and complaint resolution.
Equity Programming	User-equity focused RFP requirements aimed at reducing barriers to use.
Enforcement Requirements	Defines enforcement mechanism, including recommended operator security deposit, hourly impound fee, and mechanism to suspend operations.
Program Fees	Outlines recommended vendor fee structure and pricing.
User Fees	Information on area micromobility prices and how an RFP can consider proposed pricing in the total contract value proposition
Subsidy and Revenue Sharing	Information on how operating subsidies and revenue sharing could be incorporated into the program.

Program Rollout and Expansion

This section discusses the impact of a jurisdiction entering or leaving the program during the duration of the pilot and how that may affect the overall pilot system. The study team envisions that the pilot would run for one-year, with participating jurisdictions committing to stay within that program through the duration of the pilot.

The pilot is an opportunity for the county to refine its micromobility management approach. At the end of the pilot period, the study team envisions the county would make recommendations for and adopt a revised program management structure that incorporates lessons learned from the pilot.

Risk Mitigation

Any micromobility program faces risks. While it is impossible to eliminate all risk, there are strategies to help mitigate or lesson risk exposure for the program manager, participating jurisdictions, and the public. Some key topics discussed in this report include: liability risk, reducing the likelihood of operator exit, and financial risks associated with the program.

Existing Micromobility Regulatory Framework

Before outlining specific program guidelines and standards, it is important to understand the existing regulatory landscape in California and San Mateo County for micromobility operators. The State of California through AB 1286 requires jurisdictions to regulate and manage shared micromobility programs within their boundaries. As of the time of writing, City of San Mateo and Redwood City are the only two jurisdictions in the County with established micromobility ordinances. Burlingame and Millbrae have also established operating standards through their bikeshare RFP released in the summer of 2022.¹ This section outlines existing regulations and any possible points of conflict between established regulations and a future county micromobility program. A wider discussion of regional and national practices is incorporated in the section of this report titled [Recommended Program Guidelines and Requirements](#).

Statewide Regulations

California Assembly Bill 1286 (passed in September 2020) outlines the basic regulatory structure for micromobility in California. The bill requires jurisdictions to adopt operating, parking, and maintenance rules for shared micromobility through the establishment of an ordinance, permit program, or agreement (i.e., eliminating the opportunity to establish a micromobility program by-right in the absence of any existing rules or agreements). The bill does not dictate specific requirements for local regulations beyond minimum commercial liability insurance coverage standards for the micromobility operator of \$1 million per incident and \$5 million in aggregate coverage.

In addition, [California Assembly Bill 371](#) (as of 8/6/2022 yet to be signed into law by the Governor) would require scooter operators to take out additional user coverage for cases of individual injury, death, or property damage. The bill would also require vehicle identifiers to help the visually impaired identify vehicles.

Vehicle Types and Equipment Regulations

Within San Mateo County, presently only Redwood City has a micromobility permit program that allows for shared scooters. While the City of San Mateo's micromobility ordinance (Municipal Code Chapter 11.30 "Shared Mobility") includes language about shared scooters, the permit program established by the City currently is limited to bicycles and e-bicycles. Finally, Millbrae and Burlingame, which are introducing shared-micromobility through a joint RFP, have limited their planned program to e-bicycles. Unlike the other two cities which permit Class I and II e-bicycles, Millbrae and Burlingame will restrict their program to Class I e-bikes. See **Table 1** for a summary of vehicle regulations by jurisdiction. The study team does not see existing vehicle regulations as a major barrier to a county micromobility program with the major

Vehicle Classes

California Assembly Bill 1096 classifies electric bicycles into three categories:

- **Class I:** Ped-assist bicycles with a maximum assisted speed of 20 mph. These bicycles are permitted to be used on any paved surfaces bicycles are allowed.
- **Class II:** Throttle-assisted bicycles with a maximum assisted speed of 20 mph. These bicycles are permitted to be used on any paved surfaces bicycles are allowed.
- **Class III:** Ped-assist bicycles where the electric motor can provide assistance up to 28 mph. Users must wear a helmet and be 16 years or older. Class 3 bicycles are prohibited from multi-use paths.

¹ Note that while the shared scooters operate in portions of the City of South San Francisco, the study team could not locate any published ordinance.

exception that scooter-share is presently only explicitly permitted in Redwood City. While requirements related to e-bike vehicle class and capability differ slightly, any bikeshare program utilizing Class I e-bikes should be able to satisfy all existing requirements among the jurisdictions evaluated.

Table 2: Vehicle Types by Jurisdiction

	Redwood City	City of San Mateo	Millbrae / Burlingame
Vehicle Type	Scooters and bicycles, including Class I and II e-bicycles	Bicycles, including Class I and II e-bicycles.	Class I e-bicycles
Speed Restrictions	15 mph for scooters and 20 mph for bicycles max speed	20 mph max speed	20 mph max speed
Other Requirements	<ul style="list-style-type: none"> Clearly identifiable serial number on vehicle Vehicles must be trackable through GPS Vehicles should be capable of geofencing / remote locking. Mobile app and/or website provide public the location, serial number, availability, and charge of vehicles 	<ul style="list-style-type: none"> Clearly identifiable serial number on vehicle Vehicles must be trackable through GPS Vehicles must be equipped with front and back lights visible from at least 300 feet in normal conditions. 	<ul style="list-style-type: none"> No other vehicle-specific requirements

Regulations on Where People Can Ride

California code allows jurisdictions to regulate where micromobility devices are permitted to ride. Of the jurisdictions examined by the study team, only the City of San Mateo in its micromobility ordinance explicitly bans vehicles from riding on sidewalks. Note that scooters are banned by California law from operating on sidewalks, effectively banning sidewalk riding in Redwood City. None of the jurisdictions specify no-go or slow zones in their micromobility regulations. See **Table 2** for more detail on riding restrictions.

Table 3: Rider Restrictions by Jurisdiction

	Redwood City	City of San Mateo	Millbrae / Burlingame
Riding Restrictions	Vehicles permitted to ride anywhere bicycles are allowed	Vehicles permitted to ride anywhere bicycles are allowed; explicit ban on sidewalk riding.	Vehicles permitted to ride anywhere bicycles are allowed

Regulations on Where People Can Park

The City of San Mateo and Redwood City use similar language to regulate where micromobility devices can be parked. Existing regulations do not conflict with one another and require vehicles to be parked in the furniture zone of sidewalks or other pre-defined designated areas such as geofenced parking zones and

stations. The regulations all require the vehicles be parked upright, and not block curb cuts, curb ramps, ADA access, access to transit stops, sidewalk clear space, and fire hydrants. The Millbrae and Burlingame RFP provides less detail on banned parking locations but does not conflict with the ordinances of the other two jurisdictions. See **Table 3** for more detail on parking restrictions

Table 4: Parking Restrictions by Jurisdiction

	Redwood City	City of San Mateo	Millbrae / Burlingame
Permitted Parking Area	Hard surface of sidewalk frontage or furniture zone	Hard surface of sidewalk furniture zone	Unspecified
Banned Locations	<ul style="list-style-type: none"> Anywhere that impedes the free flow of traffic or access Adjacent to curb ramps, disabled parking zones, street furniture, entryways, driveways, fire hydrants, and bus stops. 	<ul style="list-style-type: none"> Anywhere that impedes the free flow of traffic or access Locations that obstruct access to fire hydrants, street furniture, crosswalks, sidewalks, buildings, parks, trails, driveways, or private property access. 	<ul style="list-style-type: none"> Anywhere that impedes the free flow of traffic or access Cities reserve the right to designate geofenced no-parking areas.

Other Restrictions

The review of micromobility ordinances in San Mateo, Redwood City, Millbrae, and Burlingame identified few other restriction types that may impact a county system.

- **Logos:** City of San Mateo restricts the operator from affixing any logos, sponsorships, and advertising to the vehicle other than the operator’s own logo.
- **Education Information:** Redwood City requires the operator to provide education materials about safe riding, proper parking, rules of the road, and existing local and state regulations to riders. Information must be at a minimum in English and Spanish and accessible to persons with disabilities.
- **Helmet Requirements:** No helmet requirements exist beyond state regulations for helmet use.

Insurance Requirement

Redwood City and the City of San Mateo have identical commercial liability insurance requirements in their micromobility ordinances. Millbrae and Burlingame outlined a higher Commercial Liability Insurance requirement in their RFP. Moreover, each jurisdiction specifies other required insurance policies, such as Cyber Liability Insurance (Redwood City) and Auto Liability Insurance (City of San Mateo, Millbrae, and Burlingame). All jurisdictions require the policy to cover liability of the city and any elected officials, employees, volunteers, or contractors. While each jurisdiction sets slightly different insurance standards, nothing in the requirements conflict with one another and an operator could comply by adopting a policy that meets or exceeds each jurisdictions minimum requirement.

Note that if AB 371 passes into law, it would require revisions to all local micromobility insurance requirement.

Table 5: Insurance Requirements by Jurisdiction

	Redwood City	City of San Mateo	Millbrae / Burlingame
Per Occurrence – Commercial Liability Insurance	\$2 million	\$2 million	\$5 million per occurrence
Aggregate Coverage – Commercial Liability Insurance	\$5 million	\$5 million	No annual aggregate; required total \$5 million minimum liability may be satisfied with a combination of primary and umbrella/excel limits so long as primary limit is at least \$5 million
Other	<ul style="list-style-type: none"> Cyber Liability Insurance of \$1 million per claim All insurance carriers must maintain an A.M. Best rating no less than A:VII 	Auto liability insurance of \$1 million per accident for bodily injury and property damage	Auto liability insurance of \$1 million per accident for bodily injury and property damage

Fees and Enforcement

There are differences between how jurisdictions structure their permit fees in San Mateo County. Redwood City, which has an active scooter-share program at the time of writing, charges a \$2,000 application fee, and \$0.15 fee per trip. The operator is also required to pay a \$5,000 public repair and maintenance fee that is refundable in the case no damages occur. The Millbrae / Burlingame RFP does not outline any specific fees.

To enforce existing permit programs, Redwood City and the City of San Mateo reserve the right to revoke the operating agreement. Redwood City also will charge operators a \$99 impound fee if vehicles must be removed from the public right-of-way.

For a countywide program, ideally a unified fee and enforcement structure would be established. A countywide program would likely establish more specific enforcement mechanisms that go beyond what the jurisdictions currently require (see [Recommended Enforcement Strategy](#)).

Table 6: Fees and Enforcement

	Redwood City	City of San Mateo	Millbrae / Burlingame
Application Fee	\$2,000 application fee for new, renewed, or expanded permit	\$5,000 fee for 12-month permit	None
Other Fees	<ul style="list-style-type: none"> \$5,000 public property repair and maintenance fee (serves as a form of security deposit). \$0.15 fee per trip 		None
Enforcement Mechanisms	<ul style="list-style-type: none"> Revocation of operating permit \$99 impound fee 	Revocation of operating permit	Not described in RFP

Regulatory Points of Conflict

Overall, the study team sees limited points of conflict in existing micromobility regulations that would hinder the implementation of a county system. The most significant regulatory hurdles to a multi-jurisdictional program are:

- Scooters are only explicitly permitted to operate in Redwood City.
- Jurisdictions outline differing fees in their micromobility ordinances. Ideally an interjurisdictional program would have its own fee structure independent of existing local permit programs.
- Millbrae and Burlingame have a higher insurance requirement than the City of San Mateo and Redwood City. It is unclear whether that requirement would prove exclusively burdensome to a future regional operator or not.
- If the pilot program includes a jurisdiction with an existing micromobility program, such as Redwood City, the county will need to determine how reconcile the local system with a regional program. As there are few micromobility systems already in operation in the County, the pilot program could simply grandfather in any existing operations through the end of their permit term.

If the pilot program includes a jurisdiction with an existing micromobility program, it should

Recommended Program Guidelines and Requirements

The study team envisions that instead of establishing a permit program, participating jurisdictions would solicit a vendor to operate a micromobility pilot through a competitive RFP. An RFP is the ideal approach for a pilot as it allows vendors to propose their own solutions to meet program goals. An RFP process also allows the county to select a vendor that represents the best total value instead of basing vendor selection merely on whether the applicant meets a minimum set of standards.

The guidelines in this section include a mix of recommended program standards and areas where the respondent can demonstrate value. For each topic, the study team provides background and a recommended approach.

An RFP for shared micromobility will lay out guidelines and requirements for the program that the selected vendor must follow. Common elements included in these program guidelines and requirements are:

- Type of vehicles permitted (e.g., pedal bicycles, e-bikes, e-scooters)
- Regulations of where people can ride (e.g., no sidewalk riding, geographic restrictions)
- Regulations on where riders can park
- Rider speed restrictions
- Rider age restrictions
- Maximum (and/or minimum) number of vehicles permitted
- Insurance and indemnification requirements
- Data sharing and frequency
- Contract length
- Vehicle maintenance and inspection requirements
- Rebalancing requirements (rules that dictate when vehicles need to be redistributed)
- Geographic coverage requirements
- Customer service and complaint resolution standards.

RFP Procurement over Permit Program

The study team recommends that San Mateo County procure a single operator for the pilot instead of establishing an open permit program. Both approaches are common across the Country but releasing an RFP would benefit the county in a few ways over establishing a permit program:

- 1) A permit program does not allow the county to compare and contrast across vendors like an RFP does. A sole vendor permit program would not be competitive, issuing the contract on a first-come basis.
- 2) Unlike in a permit program, where all requirements are established upfront, an RFP allows respondents to propose specific approaches and solutions, which San Mateo County can in-turn evaluate against one another. As such, with an RFP, the program manager and participating jurisdictions do not need to figure out every aspect of the pilot program and instead be in dialogue with vendors to come up with effective solutions.
- 3) An RFP also allows for negotiations with the vendor on scope, in-kind services, fees, and subsidies. For example, whether an operator needs a subsidy to run the program may be dependent on other negotiable factors such as the vehicle cap, whether scooters are permitted, fee structure, and market exclusivity.

Types of Vehicles Permitted

Micromobility vendors operate a variety of vehicles, but e-scooters and e-bikes are the most common vehicle type. For example, Lime, which is currently permitted to operate in San Francisco, maintains a fleet of e-scooters and e-bikes; the company is also piloting a fleet of adaptive scooters.² There is limited appetite from the private sector to operate conventional bikes, as most customers gravitate to vehicles with electric assist. The existing micromobility programs and ordinances in San Mateo County are varied in terms of the types of vehicles permitted. As presented in **Table 1**, Redwood City permits the operation of both bicycles (pedal or electric) and e-scooters under its permit program, while the City of San Mateo and Millbrae/Burlingame permit only bicycles (pedal or electric). The study team in this section outlines recommended vehicle guidelines for both scooters and e-bicycles.

Recommended Vehicle Guidelines

- 1) All vehicles must be in compliance with local, state and federal laws and regulations covering bicycles and scooters. In addition, electric-assist bicycles must meet the National Highway Traffic Safety Administrations definition of low-speed electric bicycles.
- 2) All vehicles must have clearly identifiable serial numbers, along with the company name, customer service telephone number, and website address.
- 3) All vehicles must be equipped with the following:
 - a. An integrated locking mechanism which cannot be removed using simple tools and which securely holds the vehicle upright when parked at a bike rack or other fixed object. A combination lock will not be considered an integrated locking mechanism.

² Lime, "Lime Able," <https://www.li.me/why/community/lime-able>

- b. On-board GPS device capable of providing real-time location data and the capability to georeferenced where riders can go, establish slow zone, and restrict parking.
 - c. Operable front and back brakes operated through handles on the handlebar
 - d. Lights visible at least 300 feet away in normal conditions and remain on for 90 seconds after the vehicle has stopped, a red reflector on the rear of the vehicle that is visible from a distance of 500 feet to the rear, when directly in front of lawful upper bans of headlamps on a motor vehicle, and a white or yellow reflector on each side visible from the front and rear of the motor scooter from a distance of 200 feet.
- 4) Additionally, if permitted, electric assist bikes shall have:
- a. Fully operable pedals and have a top motor-powered speed of 20 miles per hour.
 - b. A front or rear basket
- 5) Additionally, if permitted, electric assist scooters should have:
- a. An electric motor with a top regulated speed of 15 miles per hour.
 - b. Minimum wheel size of nine inches in diameter

Rider Regulations

Laying out clear regulations for where customers are allowed to ride shared micromobility vehicles is essential for operating a safe and efficient micromobility program. These regulations encompass two aspects of vehicle operation: where on the public right-of-way vehicles should be ridden (e.g., sidewalk, bike lane, mixed traffic) and the service area for the micromobility program.

Defining a clear service area is important for managing micromobility vehicle operations. For San Mateo County, that means determining if vehicles can be ridden outside of jurisdictions that have opted into the countywide micromobility program, if vehicles can be operated anywhere within participating jurisdictions, or if there are designated zones within participating jurisdictions that riding is allowed. For example, micromobility vehicles could be limited to downtowns of participating jurisdictions, or vehicles could be banned from especially steep or narrow roads and trails that would be unsafe to travel on using an e-bike.

As technology improves, micromobility vendors have more resources available to them to help ensure their vehicles are being used within designated areas and in the correct part of the right of way. Most vendors use geofencing technology to help enforce riding guidelines. In general terms, geofencing is a location-based service in which an app or other software uses GPS or other data to trip a pre-programmed action when a vehicle enters or exits a virtual boundary. While the technology is not perfect and is currently only accurate to within five to ten feet, it can be useful for helping enforce where bike or scooter use is prohibited.³

In addition, defining where vehicles are allowed to be ridden is important for setting clear operational guidelines. In general, micromobility vehicles can be ridden on the sidewalk, in mixed traffic on a street, or in a bike lane, and in some instances, operation in the public right-of-way is unrestricted, meaning someone

³ NACTO (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

could ride a micromobility vehicle anywhere. The [California Vehicle Code](#) can also help provide direction for where micromobility vehicles should and should not be ridden. For example, California code currently states that e-assist bicycles are allowed in bike lanes if authorized by a local authority or ordinance.⁴ Currently in the region, as described in **Table 2**, Redwood City and Millbrae/Burlingame permit micromobility vehicles to be ridden anywhere bicycles are allowed, and the City of San Mateo permits vehicles anywhere bicycles are allowed, but explicitly bans sidewalk riding. Oakland, Berkeley, and San Jose also ban the operation of any micromobility vehicles on sidewalks and the California Vehicle Code (Sec. 21235) bans scooters from operating on sidewalks.

Finally, geofencing technology allows jurisdictions to establish slow zones where the maximum top speed of the vehicle is throttled. For example, slow zones are used in Hartford, CT to limit scooters to 8 mph in select city parks. A similar slow zone could be utilized in San Mateo County to minimize modal conflicts in locations like parks or campuses.

Recommended Regulations for Where People Can Ride

- 1) Use of micromobility vehicles should follow existing state guidelines for e-bikes and e-scooters. Scooters and bicycles must yield to pedestrians. Micromobility vehicle users must follow the rules of the road, obey all traffic laws, and obey all applicable local ordinances when riding on a street or roadway.
- 2) The participating jurisdictions reserve the right to identify designated no-riding or slow zones, where micromobility vehicles are prohibited or limited to speeds below the service area maximums. As such, the vendor may be required to create geofenced areas to enforce these rules.

Vehicle Parking Regulations

Tied closely to where people can ride micromobility vehicle is where people can park those vehicles. Without clear guidelines in place, micromobility vehicles can quickly become a nuisance. Improperly parked vehicles can impede pedestrians' ability to use the sidewalk or a car's ability to use the roadway and can become a safety hazard. There are several approaches to parking management the County could take, including designating areas where parking is permitted and designating areas where parking is prohibited.

Increasingly, jurisdictions with micromobility programs are implementing micromobility parking zones or corrals, which clearly delineate where vehicles can be parked.⁵ Corals can be located on sidewalks or streets and with or without specific docking points. Parking corrals reduce micromobility vehicles' encroachment on the public right of way and add a layer of control over operations for jurisdictions and operators. However, these corrals do take some freedom away from dockless mobility and will not provide a guarantee that users will park vehicles correctly. Another approach is to designate areas where parking is prohibited. As such, a jurisdiction indicates areas where parking is not allowed, such as on sidewalks, but does not designate

⁴ California Department of Motor Vehicles (2022), "Two-Wheel Vehicle Operation," <https://www.dmv.ca.gov/portal/handbook/motorcycle-handbook/two-wheel-vehicle-operation/#:~:text=No%20pedals%20if%20powered%20solely,by%20local%20authority%20or%20ordinance>

⁵ NACTO, (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

specific parking corrals. This helps ensure that vehicles do not block the sidewalk, but it can be difficult for a jurisdiction and the vendor to manage.⁶

Recommended Regulations / RFP Requirements

- 1) Vendors should propose a descriptive management plan for parking, such as a geofencing system.
- 2) The Micromobility Program should include a method for locking vehicles at the end of trips that is predictable for users and minimizes the impact of sidewalk hazards, bicycle clutter, and ADA accessibility concerns. Proposers should describe a process to remove vehicles left on streets and sidewalks that impact the public accessibility and the free flow of traffic.
- 3) Micromobility vehicles must be parked upright on a paved surface within the furniture zone of a sidewalk or within a pre-determined parking zone or corral. Vehicles cannot be parked anywhere that blocks:
 - a. Public roadway or on-street parking spots
 - b. Access or egress from buildings
 - c. Curb ramps
 - d. Curb cuts
 - e. Access to fire hydrants
 - f. The sidewalk right-of-way
 - g. Transit stops
- 4) In locations where there is insufficient eligible space to park micromobility vehicles, operator will work with the program manager to identify parking zones.
- 5) Vehicles can only be permitted to park on private property with the written approval of the property owner and jurisdiction.

The study team has stopped short of recommending that all vehicles must be locked to a stationary object. While this requirement helps reduce issues with vehicles blocking the sidewalk or being vandalized, it also raises some challenges. There may not be adequate bicycle parking in some communities, which would make compliance challenging. Similarly, jurisdictions may elect to establish on-street micromobility parking zones; a lock to requirement may require these zones include bicycle racks as well which increase the cost and complexity of implementation. Participating jurisdictions should consider these challenges when determining whether to include a lock-to requirement.

⁶ Transportation For America, *Shared Micromobility Playbook*, <https://playbook.t4america.org/>

Speed Limits

Regulations on rider speed are important for ensuring the safe operation of micromobility vehicles. Vehicle speed is controlled in a few ways. The most powerful e-bikes available have a maximum speed of 28 miles per hour, and most e-bikes have a maximum speed of 20 miles per hour. Most e-scooters on the market have maximum speeds around 15 miles per hour. Second, micromobility vendors can use geofencing technology that can further control speeds based on vehicle location. For example, maximum vehicle speeds can be reduced in areas with high pedestrian traffic, which can help limit the negative interactions between pedestrians and micromobility users.

Recommended Regulations for Vehicle Speed

- 1) E-bikes shall be Class I pedal assist, with a maximum speed of 20 miles per hour. E-scooters should have a maximum speed of 15 miles per hour.
- 2) The vendor shall propose a plan for managing speeds on vehicles. The participating jurisdictions reserve the right to adjust speed limits and designate slow-zones where riders cannot exceed 8 miles per hour on electric power.

Age Restrictions

As with other vehicles, the operation of micromobility vehicles can be unsafe if operated carelessly or improperly. As such, the County should lay out clear guidelines for who is eligible to operate a micromobility vehicle. The law differs on slightly on who can ride e-scooters and bikes in California. California vehicle code requires a driver's license or permit to operate an e-scooter, effectively limited scooter-share services to those 16 years or older.⁷ E-bikes do not face the same restriction, but operators typically set a minimum age due to liability concerns. Note that age restrictions can be difficult to enforce without a requirement for a state issued ID.

Recommended Regulations for Rider Age

- 1) Vendors must verify that users have valid credentials for use of an e-bike or e-scooter, as required by the California Vehicle Code.

Regulations on Helmets

An important safety consideration for a micromobility program is helmet use. Jurisdictions with micromobility programs have the option to require helmet use to further advocate for safety. While helmets provide valuable protection for cyclists and scooter users, helmet requirements can be difficult to enforce. In addition, a helmet requirement can limit accessibility to a micromobility program, reduce the use and can be a potential barrier to entry for individuals. To make helmets more accessible, some cities such as Santa Monica have required micromobility operators to provide helmets to users through distribution events and partnerships with brick-and-mortar retailers. This approach leverages operator resources to ensure all users

⁷ California Vehicle Code, <https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=veh>

have helmet access, but it can prove burdensome for vendors.⁸ Note that the California vehicle code requires helmets on bicycles for all bike and scooter users aged 18 and under.⁹

While helmet requirements are good in theory, they have been problematic to implement. Even when operators regularly supply helmets to the public, there is no cost-effective model to make helmets available to users on-demand at the point of where a trip starts. Helmet requirements create an additional point of enforcement, which raises equity concerns around who may be targeted for enforcement. Finally, helmet laws create an additional barrier to taking micromobility trips. Previous research has shown a strong correlation between bicycle trip volume and accident rates, and policy makers may do more for cycling and scooter safety by making these modes more prevalent than requiring helmets¹⁰. While on an individual level, helmets increase safety, at a societal level they may decrease safety by reducing the adoption of modes like cycling.

Recommended Regulations for Helmet Usage

- 1) Helmets should be worn by all persons when operating an e-bike or e-scooter and must be worn by all persons under the age of 18 while operating a scooter. The vendor will provide information to riders on the correct and safe way to use the Equipment.
- 2) The vendor will make available low-cost, discounted, or complimentary helmets for users to support outreach and engagement programs or to otherwise promote safe use of the Equipment.

Regulations on Fleet Size

Most jurisdictions choose to regulate the number of micromobility vehicles permitted to operate to ensure streets are not oversaturated with micromobility vehicles. Suggested best practices on fleet size include:

- Setting a minimum and maximum number of micromobility vehicles available for public use from a vendor.
- Minimums and maximums can be dynamic, such that the contracting jurisdictions can make adjustments to fleet size requirements as demand dictates.
- Requiring vendors to deploy an absolute number of vehicles in their fleet at any given time.¹¹

Regulating the fleet size allows for greater control over the micromobility program. A smaller fleet allows jurisdictions to become comfortable with micromobility services before they scale up and can mitigate issues regarding parking management or right of way access. However, fleets should be large enough to provide a sufficient level of service.¹² Having both a minimum and maximum fleet size allows vendors to right-size their fleet based on regular variations in use. For example, demand typically declines in winter months, when fewer people are likely to use an e-scooter or e-bike and the weather leads to greater wear and tear on the vehicles.

⁸ Transportation For America, *Shared Micromobility Playbook*, <https://playbook.t4america.org/>

⁹ California Vehicle Code, <https://leginfo.ca.gov/faces/codesTOCSelected.xhtml?tocCode=veh>

¹⁰ <https://usa.streetsblog.org/2020/01/17/bike-group-to-feds-helmet-laws-are-bad/>

¹¹ NACTO, (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

¹² Transportation For America, *Shared Micromobility Playbook*, <https://playbook.t4america.org/>

Recommended Regulations on Fleet Size

- 1) For the pilot program, Vendors may provide a maximum of 500 vehicles to ensure service availability. The fleet size is based on the recommended program size established in Task 5 of this study and could be modified based on the final geographic scope of the system. The maximum fleet size may be adjusted on a quarterly basis by the program manager based on:
 - a. Trips per vehicle per day
 - b. Number of parking violations
- 2) Vendors must make available a minimum of 400 vehicles at any time to ensure vehicle availability in the service area.
 - a. Vehicles will be considered unavailable if:
 - i. Vehicle is not available for rent to the public
 - ii. Vehicle has been reported not in working order (see [Vehicle Maintenance and Inspection Requirements](#))
 - iii. Vehicle charge is less than 5 percent of battery capacity
 - iv. See [Data Sharing, Reporting Requirements, and User Privacy](#) for how fleet size will be tracked.
- 3) Vendors must ensure equitable distribution of micromobility vehicles by adhering to a minimum average vehicle availability by participating jurisdiction.
 - a. Vehicle minimums to be determined jointly by participating jurisdictions.
 - b. The study team recommends determining distribution requirements based on each participating jurisdiction's share of total service area jobs and population multiplied by 200 vehicles. For example, if a jurisdiction represented 1/4 of all people and jobs in the service area, the operator would have to maintain an average of 50 active vehicle there. The study team recommends setting jurisdiction level minimums based on 200 vehicles instead of the proposed systemwide minimum of 400 vehicles to provide operators flexibility to rebalance vehicles based on ridership demand.

Insurance and Indemnification Requirements

Laying out insurance and indemnification requirements is imperative for managing liability concerns of a micromobility program. All insurance policies carried by a micromobility vendor should meet the minimum standards dictated in California code to operate a business in the state. Common types of insurance carried by micromobility companies include:¹³

- **General Liability Insurance:** The biggest risk facing micromobility vendors is the potential that a customer will be injured while operating a vehicle. Micromobility vendors should be insured to protect themselves against risk. Minimum coverage is \$1 million per occurrence and \$2 million in the aggregate in every city a vendor operates.
- **Umbrella Insurance:** To further protect micromobility vendors beyond the coverage of General Liability Insurance and Hired and Non-Owned Auto (HNOA) policies, umbrella insurance provides protection beyond the limits and coverage of the other policies held by the vendor. Umbrella policies can cover injuries, property damage, personal liability situations, and some lawsuits. Vendors should have coverage of, at a minimum, \$5 million per occurrence.

¹³ Founders Shield, "Insurance for Micromobility," <https://foundersshield.com/industry/micro-mobility/>

In addition to these common insurance types, additional insurance can be required. This includes excess general liability insurance, workers' compensation insurance, and property insurance. Most jurisdictions in California, including San Francisco, Redwood City, and San Mateo County, require workers compensation insurance.

Note that as of 9/6/2022 there is pending legislation that would increase insurance requirements for some forms of shared micromobility (self power bicycles and Class I or II e-bikes would be exempted).

Recommended Insurance Requirements

Note that if AB 371 is signed into law, it will change insurance requirements for scootershare in California. The program manager and participating jurisdictions should consult with procurement and legal counsel to determine how the following insurance requirements should be modified. These recommendations are based on existing standards documented in Bay Area micromobility ordinances and contracts:

- 1) The contractor shall promptly hold harmless, indemnify, and defend the participating jurisdictions, as set forth in this RFP, and the selected vendor shall release the participating jurisdictions as set forth in this RFP. In addition, on or before the commencement date of the vendor agreement, the contractor shall obtain the types and minimum amounts of insurance set forth in this RFP and shall maintain those types and minimum amounts of insurance throughout the Term. As a condition precedent to the effectiveness of the License, the vendor must provide the participating jurisdictions with a certificate of insurance that shows the vendor has obtained the types and amounts of insurance required under the RFP. The vendor shall cause copies of all certificates of insurance to be delivered to all the officials that the address specified in this RFP.

- 2) Minimum Scope of Insurance
 - a. Coverage shall be at least as broad as:
 - i. Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 12 04 covering CGL on an "occurrence" basis, including produces-completed, operations, property damage, bodily injury, and personal & advertising injury, with limits no less than \$5,000,000 per occurrence and no annual aggregate. The required total of \$5,000,000 minimum limit of liability may be satisfied with a combination of primary and umbrella/excess limits so long as the primary limit is at least \$3,000,000.
 - ii. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
 - iii. Workers Compensation Insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
 - iv. If the Contractor maintains higher limits than the minimums shown above, the participating jurisdictions require and shall be entitled to coverage for the higher limits maintained by the Contractor.

- 3) Deductibles and Self-Insured Retentions
 - a. Any deductibles or self-insured retentions must be declared to and approved by the participating jurisdictions. At the option of the participating jurisdictions, either: the

insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to the participating jurisdictions, their officers, officials, employees, and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

4) Other Insurance Provision

a. The policies are to contain, or be endorsed to contain the following provisions:

i. General Liability and Automobile Liability Coverages

1. The participating jurisdictions, their officers, officials, employees, and volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Contractor, products and completed operations of the Contractor, premises owned, occupied, or used by the Contractor, or automobiles owned, leased, hired, or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to participating jurisdictions, their officers, officials, employees, or volunteers. The endorsement providing this additional insured coverage shall be equal to or broader than ISO Form CG 20 10 11 85 and must cover joint negligence, completed operations, and the acts of subcontractors.
2. The Contractor's insurance coverage shall be primary insurance as respects the participating jurisdictions, their officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the participating jurisdictions, their officers, officials, employees, or volunteers shall be excess of the Contractor's Insurance and shall not contribute with it.
3. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the participating jurisdictions, their officers, officials, employees, or volunteers.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

ii. Workers' Compensation and Employers Liability Coverage

1. The insurer shall agree to waive all rights of subrogation against the participating jurisdictions, their officers, officials, employees, or volunteers for losses arising from work performed by the Contractor for the participating jurisdictions.

b. All Coverages

- i. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt required, has been given to the participating jurisdictions.

5) Acceptability of Insurers

- a. Insurance is to be placed with insurers with a Best's rating of no less than A-:VII and authorized to do business in the State of California.

6) Verification of Coverage

- a. Upon execution of this Agreement, Contractor shall furnish the participating jurisdictions with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms approved by the participating jurisdictions. All certificates and endorsements are to be received and approved by the participating jurisdictions before work commences. The participating jurisdictions reserve the right to require complete, certified copies of all required insurance policies, at any time.

7) Subcontractors

- a. Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

8) Additional Requirements

- a. Based on the advice of procurement specialists, San Mateo County may elect to require additional forms of insurance. For example, Redwood City requires the vendor to acquire Cyber Liability Insurance with the following terms:
 - i. “Shared micromobility operator must carry Cyber Liability Insurance with limits not less than \$1 million per claim. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by the operator in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties, as well as credit monitoring expenses with limits sufficient to respond to these obligations”

Data Sharing, Reporting Requirements, and User Privacy

Shared micromobility vehicles produce an immense amount of data and information that jurisdictions need to understand the impact these services have within the service areas. Jurisdictions must set clear data sharing requirements with vendors that lay out the information the jurisdiction is seeking, how the data will be stored and managed, the format of the data, and how often the data is shared with jurisdictions. In addition, jurisdictions should define its expectations regarding personal identifying information and preferences for user protecting data.

The format for which data is provided by the vendors varies. Two widely used data formats exist for micromobility: General Bikeshare Feed (GBFS) and Mobility Data Specification (MDS). Modeled after the General Transit Feed Specification and developed by the North American Bikeshare Associated, GBFS “defines a common format to share the real-time status of a shared micromobility system,” with the express purpose to enable clear information exchange between multiple parties. GBFS is intended to be accessible to the public and can be used to aid in traveler trip planning.¹⁴ MDS, developed by Open Mobility Foundation, is

¹⁴ NABSA (2022), “Shared Mobility Data,” <https://nabsa.net/resources/data/>

a digital tool intended to help cities manage transportation in the public right of way by standardizing communications and data-sharing between public entities and private micromobility operators. Through APIs, MDS helps private shared mobility companies share real-time and historic vehicle data with jurisdictions, which helps inform policy decisions. To be compliant with MDS specifications, private micromobility operators must publish a publicly available GBFS feed.¹⁵

Recommended Data Sharing and Frequency Guidelines

- 1) Vendors shall provide data to the participating jurisdictions in an editable spreadsheet on their entire fleet in San Mateo County, including in-service date of vehicle. Report should be made available within three business days upon request or otherwise supplied monthly to the program manager.
- 2) The vendor shall provide real-time information in General BikeShare Feed (GBFS) specifications through a documented application program interface (API). As such, vendors are directly responsible for providing an API key to the participating jurisdictions to access the data described below. The data to be published to the API will include the following information in real time for every bicycle, electric-assist bicycle and electric-scooter parked in the county’s operational areas:
 - a. Point location
 - b. Bicycle/electric-assist bicycle/electric scooter identification number
 - c. Type of vehicle
 - d. Charge level (if electric)
 - e. Incentivized parking area (if applicable)¹⁶
- 3) Vendors shall provide the following anonymized data for each trip record to inform and support safe and effective management of the system and for transportation planning efforts. Data shall be submitted in an editable spreadsheet and via an API when requested by the program manager and conform to Mobility Data Formats (MDS), unless otherwise specified by the program manager.
 - a. Anonymized trip data should be provided to the program manager at a minimum monthly.
 - b. The following table outlines the requested data schema:

Field Name	Format	Description
Company name	[Company name]	n/a
Type of device	Bicycle, electric-assist bicycle or electric scooter	n/a
Trip record number	xxx0001, xxx0002, xxx0003,...	3-letter company acronym + consecutive trip number

¹⁵ Open Mobility Foundation (2022), “About MDS,” <https://www.openmobilityfoundation.org/about-mds/>

¹⁶ Incentivized parking areas refer to any locations where users are incentivized to leave bicycles to help with redistribution, typically in exchange for a discount or other incentive.

Field Name	Format	Description
Trip duration	MM:SS	n/a
Trip distance	Feet	n/a
Start date	MM,DD,YYYY	n/a
Start time	HH:MM:SS	n/a
End date	MM, DD, YYYY	n/a
End time	HH:MM:SS	n/a
Start location	Census block	n/a
End location	Census block	n/a
Device ID number	xxxx1, xxxx2, xxxx3,...	Unique identifiers for every device
Trip route	n/a	Only in API format
Trip cost total	\$ per trip	n/a
Pass type	Single ride, low-income discount program	n/a

- 4) Vendors shall provide the following device availability data for oversight of parking compliance and device distribution by minutes. Data should be submitted in an editable spreadsheet and via an API within three business days if requested by the participating jurisdictions.

- a. Parking data should meet the following data schema:

Field name	Format	Description
Device ID number	xxxx1, xxxx2, xxxx3,...	Unique identifiers for every device
Trip parking verification	Compliant, non-compliant	Parked location
Parking coordinates	X, Y coordinates	n/a
Parking jurisdiction	Jurisdiction name	n/a
Availability start time	HH:MM:SS; MM, DD, YYYY	Start time that a vehicle is parked
Unavailability start date	HH:MM:SS; MM, DD, YYYY	Time when a vehicle is no longer available at the location due to being rented or removed.
Availability duration	Minutes	Time elapsed between availability and unavailability time

- 5) Vendors shall supply a monthly report that outline the following:

- a. Number of vehicles in service
- b. Number of vehicles out of service
- c. Total number of trips
- d. Total minutes ridden

- e. Data on individual safety incidents, including location, types of vehicles involved, and severity of injury.
 - f. Number of unique users
 - g. Anonymized user demographics including riders' age
 - h. Device maintenance activities, including vehicle identification number and maintenance performed
 - i. Reported instances of vandalism or vehicle damage, including description of damage, location, and vehicle identification number
- 6) Vendor shall track all complaints received by customers, the public, or officials representing participating jurisdictions (see [Customer Service and Complaint Resolution Standards](#) for additional details on complaint reporting and resolution). This log should include a description of the complaint, date and time received, resolution, and date and time resolved.
- a. The program manager should have access to this customer complaint log, updated no less than every 24 hours.
- 7) Any vendor provided APIs should be compatible with third-party micromobility monitoring software.
- 8) Vendors must provide a Privacy Policy that safeguards Customers' personal, financial, travel information and usage.
- 9) Vendors should clearly communicate to the public and the participating jurisdictions what personal information is being collected about micromobility users, how it is being used, and for how long.
- 10) Vendors should produce a Privacy Policy that complies with the California Online Privacy Protection Act (CalOPPA) and any data protection laws applicable to minors, and further, expressly limits the collection, storage, or usage of any personally identifiable information to the extent absolutely required to successfully accomplish the provision of the regional shared micromobility program.

Contract Length

The ideal length for a contract can vary and determining the correct contract length is a balancing act. In general, longer contracts provide greater stability for the operator, who may in term be willing to agree to more significant program investments. Shorter contracts allow jurisdictions an easy exit in cases where an operator is under performing.

Recommended Contract Length

As this program will be launched initially as a pilot, San Mateo County should limit the duration of the contract.

- 1) The initial contract term for the pilot is proposed for one year.
- 2) The program manager reserves the right to execute a one year option to extend.

Vehicle Maintenance and Inspection Requirements

The selected vendor will be responsible for maintaining all equipment so that it is in working order. Micromobility can only be a reliable and effective mode of transportation if the equipment is in good condition. Equipment safety can be a concern, so vehicle and maintenance requirements are an important piece of any RFP. In general, jurisdictions should require that micromobility vendors develop and share their operations plans. These plans should, at minimum, include detailed information about maintenance and inspection schedules, repairs, safe battery handling practices, staffing, and trainings. In addition, vehicles should be required to comply with safety standards established by the Consumer Product Safety Commission as well as any federal, state, or local safety standards; vehicles should be equipped with on-board GPS, capable of providing the vendor with real-time location data; and the contracting jurisdictions should retain the right to suspend or terminate a vendor's contract for equipment safety concerns.¹⁷

Recommended Vehicle Maintenance and Inspection Requirements

- 1) Maintenance and repair responsibilities apply to all hardware and software components of the micromobility program. The vendor will be responsible for developing and implementing a plan for: regular inspections, ongoing and preventative maintenance, prompt repair or replacement, and removing graffiti from vehicles and parking zones on a timely basis.
- 2) A vehicle is deemed in "working order" when:
 - a. Vehicle is free of graffiti or vandalism
 - b. Tires are properly inflated and wheels are in proper alignment and undamaged
 - c. Battery is functioning, with a minimum of 5 percent charge
 - d. Brakes, drivetrain, GPS system, and other onboard hardware are fully operational.
 - e. All lights and reflectors are functional and unobstructed.
 - f. No other damage or defects are present that would prevent the safe operation of the vehicle
 - g. If applicable, seat is correctly aligned, adjustable, and free of tears or holes.
- 3) Any vehicle deemed to be not in working order by the operator, public, program manager, or participating jurisdiction shall be locked from use immediately and inspected within 24 hours of the report being made. If a vehicle is confirmed to not be in working order, it shall be removed from the public right-of-way until fully repaired.
- 4) Vendors shall provide a direct contact to a representative who can respond to requests from the public and participating jurisdictions for rebalancing, reports of incorrectly parked vehicles, or reports of unsafe/inoperable devices by relocating, re-parking, or removing the vehicles, as appropriate within the 12 hours of notice, seven days a week, 24 hours a day.
- 5) Vendors shall keep a record of maintenance activities and reported safety issues and collisions, including, but not limited to device identification number and maintenance performed. These

¹⁷ NACTO, (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

records shall be sent to the participating jurisdictions monthly and at any time within three business days if requested by the participating jurisdictions.

- 6) All vehicles must be inspected at least once every 30 days by operator staff to ensure the vehicle is in working order.
- 7) Graffiti must be removed within 24 hours of being reported, with profane language removed within 6 hours of being reported.

Rebalancing Requirements

Vehicle rebalancing is important for operating an efficient micromobility program and helps ensure that customers have access to vehicles. Rebalancing also limits overcrowding of dockless vehicles on sidewalks and can be a useful tool in improving equitable access to micromobility as well as first-mile/last-mile connectivity. In general, micromobility should be required to rebalance vehicles within the permitted service area based on parameters established by the contracting jurisdiction. Often, jurisdictions will use rebalancing requirements as a way to ensure vehicles are deployed in adequate numbers in high priority and/or equity areas.¹⁸

Although rebalancing requirements are a standard part of operating a micromobility program, these requirements can increase a vendor's operating cost substantially.

Recommended Rebalancing Requirements

- 1) The vendor is responsible for monitoring the location of each vehicle, and, if applicable, the status of each parking corral. The vendor must continuously and predictably redistribute vehicles for consistent availability of e-bikes and e-scooters throughout all participating jurisdictions.
- 2) Vendors should provide a plan in their RFP response for how they intend to meet rebalancing needs, including:
 - a. Describe the scale of the rebalancing operation in terms of staff, vehicles, and peak hours of operation.
 - b. Describe any alternative strategies the vendor plans to implement to reduce capacity issues at peak hours.
 - c. Describe service standards to meet the following objectives:
 - i. Ensure vehicles are distributed across the entire service area to meet demand.
 - ii. Ensure that equipment is distributed to meet peak demands.

Geographic Coverage Requirements

Closely tied to rebalancing requirements are geographic coverage requirements. Often, a major concern for jurisdictions with micromobility programs is ensuring that the programs are accessible to everyone in a

¹⁸ NACTO, (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

community. In addition, because micromobility programs are increasingly dockless or hybrid, there is potential for vehicles to cluster in high revenue areas, like downtowns, overburdening sidewalks.

To address this issue, contracting jurisdictions can set standards for vehicle distribution. Methods for managing geographic coverage are discussed in **Table 3**.¹⁹ Note that these methods are not mutually exclusive, but any requirements on geographic distribution may be a negotiating point for the vendors. The more robust the requirements, the less willing they may be to agree to them.

Table 7: Geographic Coverage Pros and Cons

	Description	Local Example	Pros	Cons
Distribution based on Equity Zones	Requires a certain number of vehicles (absolute or percentage of fleet) to be placed in specific pre-determined zones based on equity criteria	San Jose, San Francisco, Oakland, and Berkeley	<ul style="list-style-type: none"> Ensures vehicles are available in all parts of the service area, not just high revenue areas Creates additional mobility options for communities that need it the most 	<ul style="list-style-type: none"> Vehicle distribution may not match up with demand May require vendors to distribute vehicles to areas that will generate lower revenues Requires resources to monitor and rebalance vehicles
Vehicle Caps in Downtown Areas	Caps the number of vehicles (absolute or percentage of fleet) that can be operated in a downtown zone	San Francisco has a 400-vehicle cap in Downtown	<ul style="list-style-type: none"> Prevents vehicles from clustering in certain parts of the service area 	<ul style="list-style-type: none"> Largely a parking mitigation strategy, but does not ensure vehicles are equitably distributed in the service area Requires operators to actively manage vehicles throughout the day to stay compliant
Vehicle Caps Based on Vehicle Density	Micromobility vehicles cannot be parked or distributed in a place above a designated density level	Not utilized locally and not recommended for San Mateo County	<ul style="list-style-type: none"> Prevents vehicles from clustering in certain parts of the service area 	<ul style="list-style-type: none"> Fails to provide clear framework for where vehicles should be distributed Block face maximums need to be dynamic based on land use in the service area Parking limitations may make it more difficult for customers to end a trip on a vehicle. Requires resources to monitor and rebalance vehicles
Block Face maximums	Vendors cannot exceed a certain number of vehicles per block face	Not utilized locally and not recommended for San Mateo County	<ul style="list-style-type: none"> Prevents vehicles from clustering together on sidewalks and in parking spaces 	<ul style="list-style-type: none"> Fails to provide clear framework for where vehicles should be distributed

¹⁹ Transportation For America, *Shared Micromobility Playbook*, <https://playbook.t4america.org/>

	Description	Local Example	Pros	Cons
			<ul style="list-style-type: none"> Helps incentivize even distribution throughout the service area 	<ul style="list-style-type: none"> Block face maximums need to be dynamic based on land use in the service area Requires resources to monitor and rebalance vehicles

Recommended Geographic Coverage Requirements

- 1) Vendor must serve the public right of way in all participating jurisdictions. An operator shall not restrict use of its vehicles to certain geographical areas without the participating jurisdiction’s written permission, such as in the case of geofencing for high density areas.
- 2) The vendor should provide details on how it will ensure an equitable distribution of vehicles without over- or under-saturating certain areas of the service area.
- 3) The operator should ensure on average that x percent of vehicles are available in Equity Priority Communities, [as defined by MTC](#).
 - a. The percent standard should be based on the proportion of population and jobs in Equity Priority Communities within the pilot service area.
- 4) Vendors must ensure equitable distribution of micromobility vehicles by adhering to a minimum average vehicle availability by participating jurisdiction.
 - a. Vehicle minimums to be determined jointly by participating jurisdictions.
 - b. The study team recommends determining distribution requirements based on each participating jurisdiction’s share of total service area jobs and population multiplied by 200 vehicles. For example, if a jurisdiction represented 1/4 of all people and jobs in the service area, the operator would have to maintain an average of 50 active vehicle there. The study team recommends setting jurisdiction level minimums based on 200 vehicles instead of the proposed systemwide minimum of 400 vehicles to provide operators flexibility to rebalance vehicles based on ridership demand.

Customer Service and Complaint Resolution Standards

Customer service standards are an important feature of any micromobility program. Customer service operations should be managed by operators but contracting jurisdictions should have oversight. Key features of customer service standards include:

- A customer service hotline, with representatives able to answer questions about pricing policies and terms and conditions of use, and reporting issues.
- A customer service center that provides 24-hour real-time customer support by phone or online.
- Coordination between the customer service and existing jurisdictional customer service centers, such as 311.
- Staff who are able to respond to feedback in multiple languages.

In addition to standards around a customer service center, jurisdictions should also lay out guidelines for resolving customer complaints. This includes issues such as improperly parked vehicles that are blocking the sidewalk or damaged equipment. Jurisdictions can dictate how quickly complaints need to be resolved. Most

jurisdictions require vendors to comply with complaints about improperly parked vehicles within one to two hours and can reserve the right to require a faster response time if the vehicles are causing urgent safety concerns.²⁰

Recommended Customer Service and Complaint Resolution Standards

- 1) Vendors shall maintain a customer service phone number and mobile application interface for the public to report safety concerns, complaints, or to ask questions twenty-four hours a day, seven days a week.
- 2) Vendors shall provide a response to the complaining party within three business days. A copy of the complaint and resolution should be included in the daily complaint log provided to the program manager.
- 3) In the event of a safety or maintenance issue is reported for a specific device, that vehicle shall immediately be made unavailable to users and shall be removed within the timeframes provided in this RFP. Any inoperable or unsafe vehicle shall be repaired before it is put back into service.
- 4) Vendors shall provide a direct contact to a representative who is capable of responding to request from the public and participating jurisdictions for rebalancing, reports of incorrectly parked vehicles, or reports of unsafe/inoperable devices by relocating, re-parking, or removing the vehicles, as appropriate within the 24 hours of notice seven days a week.
 - a. In the event a vehicle is not relocated, reparked, or removed within the timeframes specified, it may be removed by the participating jurisdictions. Vendors shall compensate costs the participating jurisdictions incurs to relocate, remove, and store devices and shall reimburse the participating jurisdictions within 30 days of receipt of an invoice detailing such costs. Vendors shall provide a direct contact to handle invoicing from the participating jurisdictions and to pick up impounded vehicles.
 - b. The program manager and participating jurisdiction reserve the right to impound improperly parked vehicles at their own discretion, even if 24 hour response period has not lapsed.
- 5) The program manager and participating jurisdiction reserve the right to relocate vehicles upon their own discretion to publicly accessible location that adheres to program parking standards.
- 6) Vendors shall keep a record of all complaints and provide a response to the complaining party within three business days. The complaint and resolution should be documented provided to the program manager on an updated basis at least every 24 hours.

Equity Programming

Without actively investing in equity, micromobility programs can neglect to serve the disadvantaged populations that may most benefit from an affordable and flexible alternative to driving. To increase disadvantaged communities' access to and participation in micromobility systems, many systems have

²⁰ NACTO (2019), *Shared Micromobility Guidelines*, https://nacto.org/wp-content/uploads/2019/09/NACTO_Shared_Micromobility_Guidelines_Web.pdf

implemented equity programs that target the various barriers. These barriers prevent many people from using micromobility. Common barriers include:

- **Physical Barriers:** Micromobility vehicles being physically unavailable in certain neighborhoods. To ensure micromobility is conveniently located for residents regardless of age, race, income, or ethnicity, systems should pay special attention to the distribution of micromobility vehicles and infrastructure. Vehicle availability requirements can require operators to maintain a certain level of service by geographic area to ensure an equitable distribution of vehicles.
- **Cost Barriers:** Micromobility systems can be cost prohibitive for some users. Many programs have special discounts available for users based on income-eligibility.
- **Payment Barrier:** Many micromobility systems require users to link their account to a credit or debit-card, effectively excluded those without access to bank accounts or credit. Providing payment alternatives can help bring in users who would otherwise be unable to utilize the service.
- **Knowledge Barriers:** Many people do not use micromobility because they either do not know how to use the service or feel unsafe doing so. To combat this, systems should devote resources to marketing, education, and community engagement targeting underrepresented user groups.
- **Accessibility Barriers:** Physical ability is the final major barrier to user equity. Systems should explore how to make micromobility services more accessible. Adaptive vehicles and the electrification can help broaden the user base of micromobility.

To help address these barriers, Bay Area micromobility programs already employ a range of requirements on local operators. Oakland, Berkely, and San Jose require a fixed percentage of vehicles to be available in pre-determined equity areas (i.e., San Jose’s Equity Priority Area, Berkely’s Equity Priority Communities, and Oakland’s Communities of Concern). Most Bay Area jurisdictions require operators to offer adaptive vehicles; San Francisco requires that at least five percent of an operator’s on-street fleet include adaptive vehicles. SFMTA requires operators to offer a one-year low-income customer plan that is available to anyone making below 200 percent of the federal poverty guidelines; the plan must offer at least 50% off a full-price user fee. In Oakland, operators are required to provide \$5 annual memberships with unlimited 30-minute trips for any participant that qualifies for SNAP or CARE benefits in California. Several jurisdictions require operators provide an alternative means to payment to credit cards or smartphones but leave that at the operator’s discretion. To avoid having to independently certify that participants meet income requirements, the study team recommends basing eligibility on whether applicants already qualify and receive state social assistance such as CalFresh.

San Mateo County should look at equity programming as part of the value proposition of an RFP response. While some aspects of equity programming should be part of a future RFP’s minimum requirements, the procurement should also ask respondents to propose their own equity strategies. In cases where an equity program is not economically viable for the vendor to provide, the program manager and participating jurisdictions can explore ways to directly fund equity programming.

Recommended Equity Guidelines

- 1) The vendor should provide an adaptive vehicle solution. As part of the RFP response, they should outline their proposed adaptive vehicle and whether it is currently in operation in other markets. Borrowing from the City of San Jose’s permit requirements, the adaptive vehicle should represent 1 percent of the vendor’s fleet or 5 vehicles within the operating area (whichever number is greater).
 - a. Adaptive vehicles should be priced equal or less than standard bicycles or scooters.
- 2) The operator should propose an alternative means to paying my credit card or smartphone.
- 3) The operator should ensure on average that x percent of vehicles are available in Equity Priority Communities, [as defined by MTC](#).
 - a. The percent standard should be based on the proportion of population and jobs in Equity Priority Communities within the pilot service area.
- 4) Vendor should propose a low-income discount program for individuals at or below 200% of the federal poverty level. At a minimum, qualifying low-income applicants should have any applicable customer deposits waived. Respondents will be evaluated against one another based on the value of their proposed low-income discount.
- 5) RFP respondent is encouraged to propose additional equity programming as part of their total value proposition, including, but not limited to, equity-focused community engagement and marketing, rider education, and workforce development programs.

Adaptive Micromobility

Accessibility for users with disabilities is a major challenge for micromobility. Historically, micromobility programs have struggled to accommodate these users as traditional bicycles and standing scooters are not an option for users with certain disabilities. In the last year, several dockless micromobility providers (e.g., Helbiz, Lime, and Bird) have previewed adaptive solutions spurred on by new local requirements that operators provide such solutions:

- Motorized adaptor for wheelchairs
- Recumbent bicycles
- Seated scooters, tricycles, or quadracycles

Both Lime and Bird are piloting accessible vehicle options in a limited number of markets. Vehicles are typically reserved ahead of time, with vehicles delivered to the user’s address or at a predetermined pick-up and drop-off location. While the introduction of adaptive micromobility is a welcome addition, these programs have yet to provide the same on-demand flexibility of free floating micromobility, which can be accessed without prior planning or reservations.

Enforcement Requirements

The best guarantee of operator compliance is selecting a vendor through the RFP process that will be a constructive and responsive partner for the program manager. Unfortunately, sometimes things go wrong, and any operating contract needs to include some sort of enforcement mechanism to guard against non-compliance. There are several common approaches to vendor enforcement:

- **Fines:** Several jurisdictions to the Bay Area levy fines on micromobility operators that fail to meet operating standards. Most commonly fines are applied to improperly parked vehicles. For example, Redwood City charges operators a \$99/hour impound fee for any vehicles impounded for being improperly parked. Oakland states that upon request, the operator must pass at least 50 percent of any parking fines on the responsible user.
- **Levy Damages:** Many jurisdictions require the operator to provide a security deposit or performance bond from which the jurisdiction can deduct the cost of any damages caused to public property. For example, the City of San Jose requires operators to provide a deposit of \$10,000 and the City of Palo Alto requires a performance bond of \$130 per vehicle. San Francisco previously required micromobility vendors to fund a \$25,000 public property repair and maintenance endowment fund, paid in \$2,500 annual installments over 10 years. The City eliminated the endowment requirement as it had not been used and was costly to administer.
- **Fleet Reduction or Suspension of Operations:** Some communities reserve the right to reduce an operator's permitted fleet size or suspend operations entirely if the operator is out of compliance with regulations. Ideally, for the San Mateo County, this would be a move of last resort as any reduction in vehicle availability would also hurt the user.

Recommended Enforcement Strategy

- 1) The program will require the selected operator to provide a \$10,000 deposit or performance bond to cover the cost of any damage to property or the right-of-way caused by their operations.
- 2) The operator will be fined for any illegally parked vehicles that are removed by the program manager or staff from participating jurisdictions. The fine will include \$99 initial fine, with \$99/hour levied until the vehicle is retrieved by the operator.
- 3) The program manager and participating jurisdictions reserve the right to suspend operations in one or more of the participating jurisdictions if the operator violates their agreement.
 - a. The operator has 10 calendar days to file a written appeal to a review panel consisting of the members of the program's governance committee
 - b. A hearing of the appeal must be scheduled within 10 days of the filing
 - c. The program governance committee must issue a decision within 10 days of the hearing.

Program Fees

Charging operator fees helps offset the cost of administering a micromobility program. In developing a program fee structure, San Mateo County should consider the total value proposition of a vendor. For example, a vendor may pay high fees but not offer in-kind services such as a discount equity program. Higher fees may also be passed onto consumers in the form of higher costs. Generally, a community's ability to set higher program fees is tied to the total ridership potential. The City of San Francisco for example has comparatively high fees compared to San Jose, reflecting in part differences in micromobility ridership demand.

Program fees can take several forms:

- **Application Fee:** Many jurisdictions charge applicants a fee to cover the cost of applicant review and permitting. This type of fee is likely not appropriate for the regional micromobility program envisioned as a vendor would be acquired through an RFP process.

- **Fixed Permit Fees:** Some communities charge a fixed permit cost regardless of the number of vehicles provided. These fees can take the form of a security deposit (see “Enforcement Requirements” section) or as a non-refundable fee. For example, San Francisco charges each operator a \$38,340 program fee and an additional \$100 per vehicle bike rack fee and Oakland charges vendors an annual \$30,000 permit fee; these fixed costs are likely much higher than what the market would bare in San Mateo County.
- **Per Vehicle Fees:** Per vehicle fees are the most common fee structure in the Bay Area. Some jurisdictions (e.g., Oakland) charge a per vehicle fee in addition to a fixed permit fee. More commonly a per-vehicle fee is charged in lieu of permit fee. The per-vehicle fee should be based on the maximum number of permitted vehicles. The benefit of a per-vehicle fee is that it is scalable. If the program manager and operator agree to increase the fleet size, the fee would increase in tandem. Examples of local per-vehicle annual fees include San Jose (\$97), Oakland (\$64), Berkeley (\$64),
- **Per Ride Fee:** A few local jurisdictions, including Redwood City, levy fees on operators on a per-ride basis. A per-ride fee reduces the sunk cost of operating in a jurisdiction. If a program underperforms ridership expectations, the operator in turn would have to pay fewer fees. The downside of a per-ride fee is that it reduces revenue certainty for the jurisdiction.
- **Revenue Sharing Agreement:** Revenue sharing agreements are less common than the other fee types mentioned but are utilized by some other systems. The agreements entitle the jurisdiction to a share of operating revenue once ridership or revenue receipts exceed a certain value. Due to the reporting complexities and rarity of this model, the study team does not recommend pursuing a revenue sharing agreement as part of the pilot.

While ideally San Mateo County could recover their program management costs through operator fees, a higher fee could run counter to other program objectives. In other markets, providers have struggled to provide bike share at no cost. While the economics of scooters is better for private operators, a desire for robust equity programs or reasonable fare levels will reduce somewhat to make a profit. San Mateo County may be better served by setting a lower operator fee to exchange for things like program equity requirements and

Recommended Operator Fees

The study team recommends that San Mateo County keep program fees low in exchange for in-kind services like a discounted equity program and provision of adaptive vehicles. While the final pricing can be adjusted to help meet any program funding needs.

- 1) San Mateo County will require the selected operator to provide a \$10,000 deposit or performance bond to cover the cost of any damage to property or the right-of-way caused by their operations.
- 2) The program operator would pay an operating fee of \$50 per vehicle per year. A lower cost is recommended compared to neighboring jurisdiction because of the desire to minimize any necessary subsidy, a recognition that the San Mateo market is not as big as San Jose or San Francisco, and a desire for strong equity investments by the operator.

User Fees

A community’s ability to dictate user pricing for micromobility typically depends on the business model. While publicly owned or subsidized systems may control their program’s user pricing, privately owned and operated programs typically retain the right to set their own prices based on market conditions. In many

markets, competition between vendors provides some check on increasing user costs. As the pilot programmed envisioned for San Mateo County would only have one vendor, the county should consider the proposed user cost as part of the total value proposition of an RFP. This would establish user pricing as one of the competitive factors determining the winning bidder.

Table 8: Comparison of Single Ride User Fees among Bay Area Micromobility Programs

Jurisdiction/Program	Pricing
Bay Wheels (e-bikes), regional	\$3.49 to unlock and \$0.30 per minute to ride. \$2.00 fee when parking outside a Bay Wheels station. Note that annual or monthly members do not pay a fee to unlock and receive a 33% discount on per-minute ride costs.
LINK (e-scooters), Oakland	\$1.00 to unlock and \$0.39 per minute to ride
Lime (e-scooters), San Jose	\$3.15 for first seven minutes, then \$0.33 per minute
Lime (e-bikes), Sacramento	\$1.00 to unlock and \$0.32 per minute to ride

Recommended User Fee Policy

- 1) As part of the RFP response, operators shall propose their user fee structure, including (but not limited to), refundable deposit costs, unlock fees, cost per minute, and any subscriptions or long-term passes.
 - a. The average cost per trip to the consumer will be an evaluation factor in the RFP.
 - b. The operator commits to keep the specified user fees unchanged for the first year of operations, with a 3 percent escalation for any option years.
 - i. The operator can retain the right to introduce any additional pricing options as long as they do not conflict with the user fees established in the contract.
 - c. Changes to the contract-specified fee structure or pricing can only be made with joint agreement between the program manager and operator.

- 2) Vendor should propose a low-income discount program for individuals at or below 200% of the federal poverty level. At a minimum, qualifying low-income applicants should have any applicable customer deposits waived. Respondents will be evaluated against one another based on the value of their proposed low-income discount.

Subsidy and Revenue Sharing

The operation of a large regional micromobility program may require some level of public subsidy to support its long-term viability. Offering a subsidy is beneficial for a few reasons:

- Provides public-sector partners with more leverage to place requirements or extract commitments from the operator.
- Increases the long-term sustainability of the program by establishing a predictable source of funding of the operator.
- Can be used to reduce the price of the program to the consumer, when tied to an overall price cap or equity program.

There are a few examples of state and local funding being used to subsidize operations of a private micromobility program. In Sacramento, for example, Lime, which operates both scooters and e-bikes in the city, is subsidized by the Sacramento Area Council of Governments (SACOG). SACOG provides a monthly per

bike stipend when the trips per vehicle per day falls below a certain threshold. This stipend only applies to Lime’s fleet of e-bikes, not scooters. In addition, Lime shares revenue with SACOG and its partners when the trips per vehicle per day rises above a certain threshold. SACOG and Lime entered into this agreement in late 2020, when ridership was particularly uncertain and unstable due to the COVID-19 pandemic. This model helps incentivize a micromobility operator to stay in a market, even if ridership dips. Details on SACOG and Lime’s agreement are shown in **Table 8**.

Table 9: SACOG-Lime Subsidy and Revenue Sharing Details

Payment Type	Trips per Vehicle per Day (TVD)	Payment Amount
Subsidy Payments (From SACOG to Lime)	0.5 TVD	\$0.70 per active vehicle in service per day
	1.0 TVD	\$0.62 per active vehicle in service per day
	1.5 TVD	\$0.55 per active vehicle in service per day
	2.0 TVD	\$0.38 per active vehicle in service per day
Revenue Sharing (From Lime to SACOG)	3.5 TVD	\$0.05 per trip

In addition to incentivizing a vendor to continue operation, public funding can subsidize an equity pass program. This ensures that a micromobility program in the region is accessible for all potential customers. Tying public funding to equity passes relieves the private operator from providing reduced cost passes and helps maintain public involvement in the program.

Finally, public funding could also be used to subsidize infrastructure for micromobility. This includes the construction of bike lanes as well as the purchase and installation of micromobility parking corrals. Improved infrastructure indirectly supports the micromobility program, helping make it more appealing and viable for users.

It is unclear whether a subsidy or revenue sharing agreement is necessary or warranted for a pilot micromobility program in San Mateo County. Unlike a no-cost system, providing a subsidy introduces new administrative complexities to a multi-jurisdictional program, such as the need to determine how costs are allocated among jurisdictions and the program manager.

Recommended Subsidy and Revenue Sharing Guidelines

- 1) As part of their RFP response, vendors should indicate whether a subsidy would be required to meet the contract terms.
 - a. Any request for subsidy should be evaluated as part of a vendor’s total value proposition.
 - b. As an alternative to relying on the RFP to solicit feedback on subsidy requirements, San Mateo County could implement a two-step procurement process, starting with a request for information (RFI). The RFI would be used to determine the feasibility of proposed operating requirements and whether additional public fundraising is needed to support the system. RFI respondents can be invited to then bid on the subsequent RFP.

- 2) The vendor should propose a detailed description of how they will use the subsidies from the participating jurisdictions, including how the subsidy can support the implementation of an equity program.
- 3) Ideally San Mateo County would avoid a subsidy or revenue sharing agreement as part of the pilot to reduce the program's overall complexity. Most privately owned and operated micromobility programs (notably scooter programs) are able to sustain operations without a public subsidy. Minimizing the need for revenue or cost sharing among participating jurisdictions would simplify things in the case of a jurisdiction departing or joining the system.

Program Rollout and Expansion

The study team envisions that San Mateo County would implement a multi-jurisdictional micromobility program initially as a pilot. The benefit of this approach is that a pilot allows the program manager and participating jurisdictions to tweak their procurement, program management, and governance structure in the face of changing real-work circumstances. The pilot could also serve as a proof of concept for any jurisdictions that are interested yet hesitant to participate. Developing the program as a pilot does raise a few questions that this section seeks to answer:

- 1) How can jurisdictions join the program the program once it is established?
- 2) How can a jurisdiction exit the program? What implications does an exit have on the viability of the rest of the system?
- 3) How does San Mateo County evaluate the pilot program?

Adding or Eliminating Jurisdictions from the Program

The study team envisions that the pilot program would last a minimum of one-year, with the option to extend the agreement in 12-month intervals. All participating jurisdictions should commit to remaining within the program for the entire one-year period. At the end of the one-year period, each participating jurisdiction can choose to remain within the program or exit the partnership. In the case that a jurisdiction leaves the program, it will be up to the remaining jurisdiction and operator to decide whether to execute a modified option year, initiate a new procurement, or halt the program.

While participating jurisdictions are expected to participate in the pilot for at least its one-year minimum duration, they do reserve the right to suspend micromobility operations if the vendor fails to meet the contract terms and conditions.

Jurisdictions are invited to join the regional program as well. Similar to the scenario of a jurisdiction departing from the program, the program manager and operator will have to come to a joint agreement on whether the existing contract can be expanded to include a new jurisdiction. An operator may balk at operating in a new community based on its relative geographic isolation from the rest of the program, overall ridership potential, and financial performance of the existing pilot.

In the case of a jurisdiction joining or leaving the program, the following factors need to be considered:

- **Fleet Size and Distribution Requirements:** Changing the geographic bounds of the system will impact the fleet size and distribution requirements. The program manager, governance committee, and operator will have to come to an agreement on updated fleet minimums, maximums, equity distribution requirements, and jurisdiction distribution requirements.

- **Local Operating Agreement:** The study team envisions that each participating jurisdiction would have a local operating agreement that identifies no-ride zones, no-parking zones, slow-zones, enforcement body with the right to impound vehicles, and local points of contact. Any new jurisdictions would need to prepare their own operating agreement with the support of the program manager,. In the case of a jurisdiction leaving the program, the departure may trigger revisions to other local operating agreements (e.g., banning trips from certain routes linking to the adjoining community).
- **Cost and Revenue Sharing:** The change in the number of participating jurisdictions could impact how costs and revenue are allocated. Unless funded through an external source, participating jurisdictions would be required to cover any administrative costs or operating subsidy that remains after accounting for operator fees and revenue sharing. This could result in the cost per jurisdiction increasing as certain costs, notably administrative cost, do not grow or contract proportional to system size.

Once a pilot is established, the program manager and governance committee may not be able to accommodate any requested changes to the regulatory or management structure of the program made by additional jurisdictions looking to join. The best opportunity to revise regulations, requirements, and the program government structure are at the conclusion of the pilot.

Contractual Relationships Between Participants

There are a wide array of ways that a system can be organized contractually in San Mateo County. The study team finds that in other communities, the contractual model is often driven by local policy and legal concerns that emerge during the program development phase of the project. The study team recommends that San Mateo County try to pursue as simple of a contractual model as possible to reduce contracting and legal complexity. One solution is the following:

- The vendor contract is between the operator and the program manager
- The program manager shall be responsible to a governance body composed of all participating jurisdictions. Each jurisdiction will have an agreement with the program manager outlining their program responsibilities and how decisions are to be made within the governance committee. (see sample governance agreement provided separately)
- The contract with the vendor will deputize jurisdictions with certain powers and responsibilities without requiring them to be party to the contract.

Evaluating Pilot Performance

Micromobility pilots are intended to be temporary and eventually San Mateo County will have to decide whether to transition its pilot to a more permanent program. Other communities have used their pilot program to refine their contracting and management strategies, incorporating lessons from pilot programs into future ordinances and procurements. Before concluding its pilot program, the program manager or partner organization should prepare a pilot evaluation that provides guidance on the future of micromobility in the county. Elements to consider in such an evaluation include:

- 1) How well did the micromobility program meet initial goals and objectives?
- 2) How did people utilize the service? Did the program help fill a mobility need in the community?
- 3) What were common complaints, shortcomings, or issues with the system? How could future procurements or regulations address these issues?

- 4) How well did the governance structure function? Did the pilot raise any concerns around the sustainability of the governance model, especially if the program were to expand to more jurisdictions?
- 5) Did program administrative needs and costs differ from expectations? What additional resources would need to be identified to effectively staff a larger multi-jurisdictional system?
- 6) Did any issues arise from relying on a single operator in the pilot program? Is there a need to shift to a multi-operator permit program?
- 7) Did the pilot raise any concerns around market or operator viability? Were any regulations or requirements found to be burdensome on the operator and threaten overall program viability? Did the market produce sufficient demand for the operator or would a future program require a subsidy to sustain operations?
- 8) How effective was the user fee structure at attracting and retaining ridership? Should a future contract take a more, less, or similarly proactive role in setting user fees/pricing?
- 9) How effective was the operator fee structure. Should a future program adjust the fees, including operating fees and security deposits.
- 10) How should enforcement policies be adjusted?

The pilot evaluation report should establish specific recommendations around how governance, program management, cost sharing, and revenue sharing can be adjusted based on lessons learned. San Mateo County could elect to replace the pilot with a second pilot to continue to refine management policies or establish a permanent program. For example, the City of Alexandria, Virginia established a Phase II pilot in 2020 that introduced several program revisions based on lessons learned from their Phase I micromobility pilot, which operated during 2019. At the end of 2021, the city adopted a permanent micromobility program.

Mitigating Risk

Developing a micromobility program generates risks that the program manager and participating jurisdictions will need to work toward addressing and minimizing. This section describes possible risk scenarios and mitigation strategy.

Liability Risks

Legal liability is a frequent concern raised by communities looking to establish a micromobility program of their own. The insurance requirements outlined in this report follow standard language used by systems across California. Any operator must meet or exceed these insurance requirements and agree to indemnify the participating jurisdictions, their staff, and elected officials from legal liability. Fortunately, San Mateo County can rely on the micromobility industry's decade plus of operating in the United States. Communities, including the county's Bay Area neighbors, have already successfully navigated the issue of jurisdiction liability.

Operator Exit

The abrupt departure of an operator is another common risk. The micromobility industry is still young and there have been several examples of operators ceasing business or pivoting to a new business strategy. While San Mateo County cannot fully eliminate the risk of operator exit, there are several mitigating strategies:

- **RFP Due Diligence:** The best way to reduce the likelihood of operator exit is to conduct due diligence during the RFP process. Bidders should be able to demonstrate they have the necessary capital to meet and sustain their operating obligations through the life of the contract. Bidders should have a track-record of successful operations in other communities and provide references upon request. The operator's history should be considered when assessing relative risk.
- **Ability to Charge Damages or Fines:** To deter an operator from exiting a contract before the end of its term, San Mateo County may reserve the right to keep any remaining security deposit or performance bond provided by the operator.
- **Multiple Operators:** Many jurisdictions permit multiple vendors to operate to reduce their dependency on any one vendor. For San Mateo County, the study team recommends an initial pilot with only one vendor to reduce administrative complexity, but the program should consider allowing at least one other operator to participate in the program once the pilot concludes.

Funding Risk

Another source of risk is the loss of funding to support program administrative and (if applicable) subsidies. There are several strategies that could make the program more resilient in the face of changing funding:

- **Minimize Reliance on Annual Appropriations:** Annual apportioned funding sources, such as general fund revenue, are intrinsically unstable as their availability is not guaranteed from year to year. Ideally the program can rely on more stable streams of funding, such as multi-year funding commitments.
- **Diversification:** The more funding sources used, the more resilient a program is to the loss of any single revenue stream. San Mateo County should consider how it can draw revenue from a range of sources, from local jurisdiction contributions to operator fees, development proffers, grants, philanthropic giving, and sponsorships.
- **Minimize Costs:** By minimizing program management costs and subsidies, San Mateo County can reduce their funding risk as well. A program that costs \$200,000 a year to manage, will be easier to fundraise for than one that costs double. Efforts to minimize costs can run counter to other program objectives.
- **Establish a Program Endowment:** Not every dollar of funding is equal. Some funds might have to be spent within the fiscal year, while others may be restricted to specific program uses. One strategy to establish greater financial self-sufficiency is to rely on the most restrictive funding sources first, and bank unrestricted funds (e.g., operator derived fees) for future needs. San Mateo County could even explore establishing an endowment for surplus revenue that can grow over time to cover future operating shortfalls.

Conclusion

This technical memorandum outlines a set of proposed requirements and strategies to procure and manage an interjurisdictional micromobility program. The study team developed recommendations based on the outcome of previous project deliverables, notably the Task 5 Technical Memorandum, which concluded with a recommendation for a 500-vehicle micromobility pilot.

The study team envisions that the pilot will be established through a competitive procurement process that will select one vendor to own and operate a micromobility program for a one-year term, with additional optional years. The benefit of an RFP is that participating jurisdictions can evaluate bids from several vendors and select one that represents the best value proposition for the county. At the conclusion of the pilot, the study team envisions that San Mateo County will incorporate lessons learned from the pilot into a more permanent program.

The RFP would also be the vehicle to establish operating requirements. The recommended program guidelines represent a minimum scope of services that any RFP respondent would be required to meet. While the final operating requirements will be determined by the program's governance committee, San Mateo County is fortunate to have a wide established body of practice to borrow from. Jurisdictions across the country, including Bay Area neighbors and even San Mateo County communities like Redwood City, have already established program requirements. The study team sought to recommend program requirements that conform with established practice elsewhere.

Even the best designed micromobility program faces unknowns and risks, from jurisdictions departing from the program, to funding shortfalls or vendor bankruptcy. To help address these concerns, the study team has provided a range of mitigation strategies for consideration.

The final recommendation of the study team is that any future micromobility program in San Mateo County should strive for simplicity where possible in its final program requirements. Even among Bay Area jurisdictions, the length and complexity of micromobility ordinances and regulations vary widely. Even the most complex regulations do not guarantee against negative program outcomes. A successful micromobility program is a partnership between the community and operator. As such, effective program regulations should be matched with a productive relationship between the program manager and operator. To ensure such a relationship, the program should seek out operators with a positive track record of performance. The program requirements should provide the operator predictability and the opportunity to generate sufficient revenue.