San Diego Regional Micromobility Data Sharing Requirements Version 3

SANDAG collaborated with staff from the cities of San Diego, Chula Vista, and the North County Coastal cities to develop a set of draft regional micromobility data sharing requirements. Compliance with these draft regulations will help ensure local cities, transit agencies, universities, and military bases receive the raw data and corresponding analyses needed to inform both capital improvements and micromobility policy decisions.

From the regional perspective, micromobility data will inform updates to the SANDAG Activity-Based Model; provide a means for evaluating inter-city micromobility travel patterns; assist with regional planning activities that directly depend on trend analysis and transit accessibility evaluation; and inform SANDAG and member agencies on where capital project improvements can be targeted effectively. SANDAG will serve as the regional micromobility data clearinghouse to support local cities with real-time data collection, analyses, and mapping, and archiving.

Jurisdictions are encouraged to incorporate real-time data requirements (#1 - 11) and recommended historical data requests (#12a - f) into micromobility regulatory documents (e.g., permit requirements license agreements).

1) Operator must provide the City with accurate, real-time data through an Application Programming Interface (API) that meets the requirements of the General Bikeshare Feed Specification (GBFS) [https://github.com/NABSA/gbfs] and the Mobility Data Specification (MDS) [https://github.com/CityOfLosAngeles/mobility-data-specification]. The Operator shall not change the API URL without notifying the City with at least 30 days' notice.

1) ~~Prior to the execution of a permit or license agreement, each micromobility operator must have an application program interface (API) or other automated mechanism that allows their services to be integrated into City, SANDAG, and/or contracted city partner applications. Operators may not change the API URL without notifying the City with at least 30 days' notice.~~

2) The City may, ~~in~~ at its ~~sole~~ discretion, ~~release~~ adopt subsequent versions and/or updated versions of the MDS and require the Operator to use and publish the most current version by releasing an automatic update. ~~and/or disabling support for the previous version.~~ Operator shall not disable support for the previous version without notifying the City with at least 30 days' notice.

2) ~~Data for all micromobility devices must be provided to the City, SANDAG, and/or approved third-party partners in the General Bikeshare Feed Specification (GBFS) and Mobility Data Specification (MDS) formats, each through an API. The City will maintain links to the full specification of required data formats on a municipal website~~

1/24/19

3) The City, at its discretion, and with prior notification to the Operator, may share the data acquired via the API, or share access to the API, with the San Diego Association of Governments (SANDAG) or contracted City partners to support local and regional planning goals and objectives. The City may also maintain links to the full specification of required data formats on a municipal website.

3) ~~Real-time micromobility device data must be uploaded every 30 seconds to the provider API in order to capture route data.~~

4) GBFS data shall ~~is to~~ be made available to the public through the ~~permitted micromobility~~ Operator's website. The MDS feed shall ~~must~~ be made available to the City, SANDAG, and/or contracted City partners for the explicit purpose of program management. As such, these feeds must be consumable by third-party software.

5) The City and SANDAG are permitted to use all data ~~the micromobility operator provides~~ provided by the Operator in accordance with the MDS, including, but not limited to, displaying ~~real-time data and~~ real-time device availability data to the public.

6) Data shall be made available to the City, SANDAG, and any contracted City partners for the duration of the micromobility pilot program. The Operator API shall provide a minimum of one year's worth of micromobility pilot program data. The City and its designees may use, analyze, and publish the micromobility data they receive and may create and publish derivative products and reports. Data provided to the City may be subject to public disclosure.

7) Raw data supplied by the Operator shall be held confidentially between the City, SANDAG, and the Operator to the extent that is permitted by law. Personally-identifiable information (PII) shall not be shared with the City or any other entity; Operator shall ensure the privacy of its users. PII must be protected by the micromobility Operator, and data shall be anonymized regarding user information. Program summary utilization data, and trend data may be made public.

8) Non-GBFS data consumed through the API by City-specified third-party software providers shall not be publicly available without consent from the ~~permittee~~ Operator.

9) Data shall be provided to the City, SANDAG, and any contracted City partner at no charge.

10) Notwithstanding the returned results of any of the Mobility Data APIs, it shall be the sole responsibility of the Operator to comply with the City's program requirements listed herein.

11) Required real-time micromobility data as supplied by the GBFS and MDS include:

i. ~~Deployed device~~ Micromobility device data attributed to each universally unique identifier (UUID):

   1. Availability status and point location for any micromobility device deployed in the City or within 1 mile of City boundaries.
   2. ~~Deployed device characteristics including electric charging level (if applicable) and device type (e.g., bike, stand-up/kick scooter, sit-down scooter, electric assist device)~~
   3. Micromobility device type (e.g., pedal bike, electric-assist bike, stand-up/kick electric scooter, sit-down electric scooter) and battery charge level (if applicable)

ii. Anonymized trip data attributed to each UUID by date:

   1. Trip route and distance - GPS coordinates of trip origin, and GPS coordinates of trip destination, and GPS coordinates of trip route based on ~~30-second~~ 10-second intervals (i.e., GPS bread crumb data).

   2. Trip duration - trip start time, trip end time, trip duration in seconds, and micromobility device reservation duration in seconds (if applicable). Geospatial accuracy must be within +/- 10 feet.

   3. Micromobility trip route data will not be publicly published by the City, but the City may publish real-time micromobility device availability data to the public.

iii. Parking data - Designated micromobility device parking area and/or geofenced parking locations and usage

12) ~~Required aggregated data beyond the GBFS and MDS specifications~~

12) Recommendations for historical micromobility data that cities may request include:

   ~~a.~~ Customer service data ~~shall be submitted monthly and include:~~ (provided monthly)

      1. Complete range of Operator inquiries and resolutions
      2. Mean and median Operator response time to reports of improperly parked devices, devices reported to be an obstruction hazard, and devices not reported to be an obstruction hazard.
      3. Problems with ~~vendor's~~ Operator's reporting system or response efforts
      4. Other notable violation issues

   ~~ii.~~ Vehicle maintenance data ~~shall be submitted monthly and include:~~ (provided monthly)

1. Number of reports Operator receives from the public regarding devices that are not in good working order and/or are unsafe to ride.
2. Brief description of any significant maintenance issues that affected the Operator's devices, including product recalls and equipment failures leading to rider injury.

iii. Incident/collision data ~~shall be submitted monthly:~~ (provided monthly)
1. Reports on all incidents in which the ~~vendor's~~ Operator's devices or personnel were involved in a collision, accident, injury, or property damage.
2. Data shall include the location, collision details, number of riders, age, helmet use, property damage, and injury type.
3. ~~Each~~ Operator must disclose any incident resulting in injury within 24 hours of receiving notice.

iv. Ridership data must be ~~encrypted~~ aggregated and shall not contain any PII. Monthly reports shall include:
1. Total number of unique riders ~~who used an operator's micromobility devices in the previous month and their demographic characteristics (e.g., gender, age group)~~
1. ~~Number of unique riders who used an operator's micromobility devices in the previous three months and their demographic characteristics (e.g., gender, age group)~~
2. Total miles ridden
3. Total number of rentals
4. Average micromobility vehicle rental duration in seconds
5. Average micromobility vehicle reservation duration in seconds (if applicable)
6. Rider demographic characteristics, if available (e.g., gender, age group)

v. Parking data – each Operator must collect and summarize data on reports submitted by the public on micromobility device parking issues and the Operator's response to them. Data shall be submitted monthly and include:
1. Number of reports Operator received regarding devices reported to be an obstruction hazard; and regarding devices not reported to be an obstruction hazard;
2. Number of reports whereby the Operator inspects a reported device and determines no action is required;
3. Number of reports whereby the Operator is unable to locate the device;
4. Number of reports whereby the Operator locates the device, but the device is irretrievable;

1/24/19

5. Number of reports whereby the Operator is unable to respond to the report within 48 hours or less;
6. Brief descriptions of any significant parking issues and/or trouble spots;

vi. Survey data capturing travel choice and rider behavior information:
1. Each micromobility Operator shall agree to the distribution of a survey to all users up to ~~4~~ X times per calendar year.[1]
2. The survey instrument shall be prepared in coordination ~~by~~ with the City and SANDAG to gather vital feedback from micromobility users on topics including, but not limited to, their travel choices, perceived safety of roads and bikeways, employment, and general rider feedback.

---

[1] City to decide on minimum number of annual rider surveys