OPEN MOBILITY FOUNDATION WORKING GROUP CHARTER

APPROVED BY BOARD OF DIRECTORS ON 9/15/2020

CURB MANAGEMENT WORKING GROUP

This Working Group Charter establishes the scope, licensing and initial participation terms for the Working Group (or "WG") named above, and is subject to the requirements of the Bylaws of Open Mobility Foundation ("Foundation"). Parties participate in the Foundation's activities, and are bound by the terms of this Charter, according to the terms of those Bylaws, their application for membership in the Foundation (if applicable) and their Contributor License Agreement(s). The Bylaws also contain rules for the administration, process and work products of the Working Group. The Foundation Board of Directors must approve this Charter in order to launch a Working Group, and may choose to amend it, decline, or review it further. Proposers are encouraged to review the current Foundation Architectural Landscape Statement as to its plan of work and existing planned deliverables, before submitting a proposal.

For additional detail about working group structure, process, and definitions of terms, see the Section 4 OMF Bylaws.

- **1. Full Name of WG:** as stated above.
- 2. Short Name: CURB WG

(Please confine to ~12 characters, will be used in tags and metadata)

3. Scope of WG:

(This is a normative, binding statement.)
(Please also see the supplemental purpose and deliverables information below.)

The Curb Management Working Group (WG) is responsible for delivering data and API specifications that facilitate the inventory, exchange, and analysis of information describing curb assets and regulations. This may include dynamic information such as occupancy/utilization, pricing, or regulations that are set or adjusted through algorithmic or other automated means.

The WG is expected to conduct its work in two phases whose timeline will be determined by the Working Group Steering Committee (WGSC):

Discovery phase:

- The WGSC will identify existing efforts in the space with input from the broader WG. During this phase, the WGSC facilitates presentations and the distribution of information about existing efforts to develop a shared perspective about the state of play in curb data. In particular, the WGSC will examine COORD, CurbLR, and APDS.
- The WG should also do a light review of curb regulation / management strategies to better understand the diversity of city practices in the space.
- This phase should include a review of the potential for existing efforts to be contributed to or endorsed by the OMF as a starting point for the WG's deliverables. The WGSC should also review the potential of partnership or collaboration opportunities with other organizations. Any adoption of existing work or collaboration with other organizations must be done in a manner compatible with OMF's open source license model and approach to participatory governance.

• Implementation phase:

 Based on the outcomes of the discovery phase, the WGSC will set a specific implementation plan and prioritization for working group deliverables,
 Deliverables must be within the scope defined by this charter, but the WGSC may chose to focus initial efforts in particular areas where the OMF is best suited to play a leading role.

Other considerations:

- All outputs of the WG group are intended to be vendor-neutral and support a wide range of business models and implementation strategies for private companies working with curb data, facilitating curb management, or developing products based on the WG's data and API specifications. The WG should ensure that specifications are developed so as to preserve cities' ability to determine how curb assets, curbside spaces, and curb data are managed and monetized.
- Any decisions about adopting or endorsing existing standards, or pursuing partnerships
 with other organizations are to be made with the explicit goals of supporting the public
 interest, including healthy, competitive business ecosystems and avoiding the potential
 of unfair advantage to particular commercial interests.
- Because digital curb management is an emerging field and cities are exploring curb
 monetization beyond paid meter parking, the WG should prioritize the development of
 technologies that facilitate experimentation, pilots, and learning on the part of public
 sector stakeholders.
- The working group deliverables should aim to integrate with and/or provide a smooth transition path for legacy curb data management systems currently in use by cities

- The working group deliverables should adopt a geospatial referencing model that a) allows interoperability with the variety of mapping, linear referencing, and GIS systems used by producers and consumers of curb data, and b) supports global geospatial identifiers that allow datasets to be combined across jurisdictional boundaries.
- The deliverables of the WG should be designed to interoperate with the Mobility Data Specification where possible. In developing specifications for curb regulations and pricing, the WG may choose to adopt the design patterns of the MDS Policy API and/or extend the Policy API to encompass curb. The WG should work with foundation leadership and the Technology Council to ensure its work streams are aligned with any related projects.
- The WG may choose to create reference implementations of any of its APIs as discussed in the OMF's Architectural Landscape.
- 4. **Duration of WG:** (please circle one)

[/] 4a. Not limited

5. **Size of WG:** The maximum number of voting members of this Working Group shall be: (please circle one)

[✓] 5a. Not limited

Non-voting members of the Working Group Steering Committee are not permitted (other than Advisory Committee or similar liaisons as may be explicitly provided by the Board of Directors).

6. **Members of WG:** Each person participating in the Foundation who (a) has delivered to the Executive Director a written indication of their willingness to join the WG and receipt of a copy of this Charter, (b) meets any other restrictions listed above (such as qualifications and number of available seats) as determined by the Executive Director, and (c) has signed a properly completed Foundation Individual CLA.

During the discovery phase the Working Group Steering Committee may choose to limit WG participation to people representing OMF member organizations.

7. Initial Working Group Steering Committee:

TBD

8. Constraint on Deliverables of the WG: (please circle one)

[] 8b. WG shall issue and seek to approve the deliverables listed below, but may issue and approve other deliverables so long as they are within the Scope stated above, and consistent with the other terms of this Charter and the Bylaws.

9. Anticipated WG Deliverables: (please list)

(List may be normative; see question 8 above.)

(If initial Contributions are anticipated as starting drafts for the WG's work on a deliverable, it is recommended but not required that they also be noted below, with URLs if publicly available.)

- Data standards and APIs for describing:
 - Assets -- physical assets such as signs, hydrants, bike racks, curb cuts, or other features that comprise the functional components of urban curb
 - Regulations -- the rules that apply to given curb segments, which may derive from a combination of state or local laws, signage, restrictions related to curb assets (e.g. hydrants), or other applicable regulations.
 - Occupancy -- dynamic information about the availability of space, utilization, pricing, and reservations
- APIs designed to directly enable various identified use cases and applications for curb data, for example: real-time regulation lookup, district or city-level analysis and planning, optimization of delivery fleet operations, etc.
- Reference implementations of any APIs
- Libraries or other tools that make it easier for curb users to use published standards and APIs
- As determined by the WG and the Technology Council, some deliverables may take the form of extensions or contributions to other MDS specifications

The company COORD has offered to contribute several existing data specifications as a starting draft for some of the WG's anticipated deliverables. During the discovery phase, the WG will review COORD's contribution for this purpose, along with any other relevant existing standards such as CurbLR and APDS, proposed contributions, or potential partnerships that may be compatible with our open source licensing and participatory governance models.

10. Additional Non-Normative Statement of Committee Purpose (optional)

[The following statement comes from the Open Mobility Foundation Architectural Landscape - May 2020 Approval Draft]

Urban curb is a valuable, limited, and often under-managed part of the public right of way. Curb demand comes from passenger pickup/drop off, traditional and on-demand delivery services, transit priority, active mobility (e.g walking, biking and micromobility), and parking for personal vehicles and micromobility devices. While cities have made some progress in digitizing their

curb and other physical assets, technology and data offer new tools to proactively manage curbs and sidewalks, and in doing so deliver more public value from this scarce resource. Cities often lack a digital index or map of curb regulations, relying instead on signs and paint in the right of way. Curb data standards could provide a mechanism for expressing static and dynamic regulations for curb use. New approaches to curb usage fees could enable more goal-driven management strategies. OMF is well positioned to help cities use dynamic digital curb regulations, which could allow cities to manage the curb and adjacent infrastructure on sidewalks within the public right of way in real time and communicate the evolving restrictions, permissions, and pricing via a data feed or API.

OMF could support this type of policy innovation by specifying APIs within MDS to support policy approaches such as:

- Dynamic ridehail pick-up/drop off spaces during special events
- Conversion of on-street vehicle parking spaces into designated micromobilty parking
- Time restricted freight/delivery zoned to increase efficiency of urban logistics
- Pricing of curb access or parking on a static or demand-responsive basis
- Dynamic or flexible curb use regulations that respond to changing use patterns

11. Anticipated initial WG repositories to conduct work, and initial maintainers:

(Please also note licensing terms, below. Contributors to the WG must execute and deliver appropriate CLAs in order to participate.)

Name of repository	Unique short repo name for metadata (~12 char or less)	Initial maintainers of repository	Check, if non-default licensing is requested (see below)
MDS Curb Management (provisional)	mds-curb		

12. Licensing model for the WG:

Each repository shall be subject to contributions made under Foundation CLAs that apply the Apache License v 2.0, unless a different license is proposed in the chart above, and approved when this Charter is approved (or amended). Note that separate non-executable

documentation repositories usually will be approved if licensed under the Creative Commons CC-BY v4.0 License.

Each deliverable of any kind issued or approved by the WG or published by the Foundation must conform to a template provided by the Foundation, which includes a clear and conspicuous statement of its licensure and that it is provided on an "AS IS" basis, with a disclaimer of warranties on behalf of the Foundation, its Members and participants, and the Host LLC.