



Accessibility Extension 1.0.0

<https://github.com/ocpi> & <https://evroaming.org>

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EVRoaming Foundation



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The EVRoaming Foundation strives to keep OCPI as free from IPR as possible. If you want to contribute by adding new functionality/features, you are required to send us the signed Contributor Agreement (CA) document before contributing. To get the CA, ask for it by send an e-mail to: info@evroaming.org.

Version History

| Version | Date | Authors | Description |
|---------|------------|--|---|
| 1.0 | 2025-12-04 | <ul style="list-style-type: none">• Michel Bayings <i>EVRoaming Foundation / Emobility Consulting</i>• Ben van Gameren <i>ihomer</i>• Suman Nambiar <i>OZEV / UK DfT</i>• Madeleine Crean <i>OZEV / UK DfT</i>• Laetitia Rovira <i>OZEV / UK DfT</i>• Harry Fisher <i>Motability Foundation</i>• Parth Bhardwaj <i>Motability Foundation</i>• Edward Curwen <i>Motability Operations</i>• Marvin van Wingerde <i>Fastned</i>• Philipp Fischbacher <i>Chargepoint</i>• Callum Slater <i>Octopus Energy</i>• Alice Hodges <i>Octopus Energy</i>• Matthew Knight <i>Cenex</i>• Mark Chitty <i>Zapmap</i>• Madeleine North <i>Believ</i>• Marc Multin <i>Believ</i>• Amy Lambourne <i>Believ</i>• Moe Tun <i>Believ</i>• Elias Gouihate <i>Total Energies</i>• Thomas Croome <i>Chargecloud</i>• Nishant Seghal <i>Tesla</i> | Release of OCPI Accessibility Extension |

1. Motivation

The EVRoaming Foundation aims to support the accessibility of charging infrastructure for all users. Everyone should be able to find a charging station that meets their needs and is easy to use, including people with disabilities who may require additional accessibility and usability support.

The EVRoaming Foundation partners with the European Commission, UK Department for Transport, and several other governments and regulators to improve this. Several organisations representing disabled people have also been involved. Special thanks to UK DfT Office for Zero Emission Vehicles (OZEV) and the Motability Foundation, who sponsored this specific OCPI Task Group to create this extension. Also, thanks to several Charge Point Operators and Mobility Service Providers who all participated actively.

The OCPI Accessibility Extension aims to ensure that disabled people are able to determine whether a charging station can be used according to their individual accessibility needs. This extension is designed to be applicable across multiple OCPI versions.

Because accessibility requirements vary, the usability of a charging station cannot be expressed through a single indicator. It depends on a set of data elements describing physical characteristics, usability features, and environmental factors that influence access and operation.

The purpose of this extension is to define and standardize those data elements at the OCPI level, enabling interoperability between market parties and supporting informed accessibility-related decisions by users and services.

The EVRoaming Foundation OCPI Accessibility Task Group has considered the following classes of disabilities:

- Vision impairment: affecting the ability to see
- Hearing impairment: affecting the ability to process sounds
- Mobility impairment: affecting the ability to move independently
- Dexterity impairment: affecting the ability to perform tasks that require fine motor skills
- Cognitive impairment: affecting the ability to process information, learn, remember, and manage emotions

2. Domain

To support an accessible and inclusive EV charging experience, it is essential that drivers with diverse abilities can determine in advance whether they will be able to use a charging station independently and safely. First, a set of driver-centred use cases is presented to illustrate the accessibility challenges drivers may encounter. Subsequently, these use cases are consolidated into accessibility aspects, which define the information items required to meet the identified accessibility needs.

2.1. Use Cases

The following use cases illustrate the challenges that drivers may encounter.

- UC1. As a driver, I want to know in advance what facilities and assistance services are available at the charging location**
Drivers with mobility, dexterity, cognitive, hearing, or vision impairments need to know in advance whether a charging location offers suitable facilities and assistance services to determine if the location meets their accessibility requirements.
- UC2. As a driver, I want to know in advance what safety measures are available at the charging location**
Drivers with mobility, dexterity, cognitive, hearing, or vision impairments need clear information about the safety and security measures at a charging location to assess whether the environment supports safe and confident use of the charging facilities.
- UC3. As a driver, I want to know in advance if I can enter and exit my vehicle at the parking space**
Drivers with mobility impairments need to know in advance whether the parking space provides sufficient width, length, and maneuvering space to enter and exit their vehicle safely and independently.
- UC4. As a driver, I want to know in advance if I can move between my vehicle and the charging station**
Drivers with mobility or dexterity impairments need clear information about the pathway and layout between the parking space and the charging station to assess whether they can move safely and independently between them.
- UC5. As a driver, I want to know in advance if I can reach all required charging station interfaces**
Drivers with mobility or dexterity impairments need to know in advance whether they can reach the connector, cable, displays, and controls to access and operate the charging station independently.
- UC6. As a driver, I want to know in advance if I can handle charging cables**
Drivers with mobility or dexterity impairments need information about the cable's characteristics and supportive mechanisms to determine whether they can manage the cable and connect or disconnect it.
- UC7. As a driver, I want to know in advance if I can interact with displays, controls, and payment terminals**
Drivers with mobility, dexterity, vision, hearing or cognitive impairments need information about the accessibility and reachability of user interfaces to determine whether they can perform required actions such as starting a session or completing a payment.
- UC8. As a driver, I want clear information about any parking restrictions or conditions at the charging location**
Drivers with mobility, cognitive, or visual impairments need information about parking restrictions to determine whether they are allowed to park at the location.

UC9. As a driver, I want to know in advance if the system allows enough time to complete the charging and payment processes

Drivers with mobility, dexterity, or cognitive impairments need information about timeouts to determine whether they will have sufficient time to complete each step of the charging and payment processes.

2.2. Accessibility Aspects

The identified use cases are grouped into four accessibility aspects, each addressing a specific dimension of accessibility. These accessibility aspects form the basis for defining the information items needed to fulfill the identified user needs.

Aspect 1. Assistance Services and Facilities

Aspect 2. Safety and security

Aspect 3. Parking and Movement between vehicle and charging station

Aspect 4. Charging Station Operation

2.2.1. Assistance Services and Facilities

Provide drivers with accessibility information about the facilities and assistance services available at a charging location, enabling them to determine in advance whether the location meets their accessibility needs.

Disability Types

Mobility, Dexterity, Cognitive, Vision

Information Items

A.1.1 Availability of On-Site Assistance Services

Indicates whether the charging location provides on-site assistance services to assist with charging-related activities, such as connecting cables or operating controls

A.1.2 Assistance Services Details

Provides descriptive information on the available assistance services, including contact methods, operating hours, and type of support offered.

A.1.3 Accessible Toilets Available

Indicates whether the charging location provides toilet facilities that are accessible to people with disabilities.

A.1.4 Accessible Charging Available

Indicates whether one or more charging stations at the location include physical or ergonomic adaptations for accessible use.

A.1.5 Accessibility Standards

Lists the accessibility standards or certification frameworks that the location conforms to (e.g., PAS 1899, ADA, EC STF).

A.1.6 Photos

Provides representative images of the charging location highlighting accessibility-related features.

2.2.2. Safety and Security

Provide drivers with accessibility information about the safety and security conditions at a charging location, enabling them to determine in advance whether the environment supports safe use of the charging infrastructure.

Disability Types

Mobility, Dexterity, Cognitive, Vision

Information Items

A.2.1 Assistance Services Available

Indicates whether the charging location provides on-site assistance services to assist in case of safety concerns.

A.2.2 Safety Measures

Indicates the safety and security measures present at the charging location

A.2.3 Emergency Assistance Available

Indicates whether immediate help can be summoned in case of an incident

A.2.4 Lighting

Indicates whether the parking area is illuminated by artificial lighting.

A.2.5 Roofed

Indicates whether the parking or charging space is covered by a roof.

A.2.6 Safety Standards

Lists the safety standards and certification frameworks that the charging location conforms to.

A.2.7 Photos

Provides representative images of the charging location highlighting safety and accessibility features.

2.2.3. Parking and Movement between the vehicle and charging station

Provide drivers with accessibility information about the parking space enabling them to determine in advance whether they can enter and exit their vehicle and move safely and independently between the vehicle and the charging station.

Disability Types

Mobility, Dexterity

Information Items

A.3.1 Parking Space Width

Describes the width of the parking space, helping drivers assess whether there is sufficient room to open doors fully and use mobility aids when entering or exiting the vehicle.

A.3.2 Parking Space Length

Describes the length of the parking space, allowing drivers to determine whether there is adequate space to park and maneuver safely, especially when deploying mobility aids or transferring from the vehicle.

A.3.3 Protected Area Available

Indicates whether the parking space includes an adjacent marked or hatched area that provides additional maneuvering space

A.3.4 Surface

Describes the type and quality of the parking surface

A.3.5 Slope

Indicates whether the parking space is located on a slope

A.3.6 Step-Free Access

Indicates whether there is step-free access between the parking bay and the charging station

A.3.7 Parking Direction

Indicates the direction in which parking occurs relative to the roadway on which vehicles approach the charging station.

A.3.8 Charging Station Position

Describes the physical location of the charging station relative to the parking space.

A.3.9 Parking Restrictions

Indicates whether specific parking restrictions or conditions apply to the parking space. This includes rules about who is allowed to park, under what circumstances parking is permitted, and when these restrictions apply.

A.3.10 Standards

Lists the standards that the parking area and charging station layout conform to

A.3.11 Photos

Provides representative images of the parking area and charging station layout

2.2.4. Charging Station Operation

Provide drivers with accessibility information about the reachability, operation, interaction, and timing of the charging equipment, enabling them to determine in advance whether they can independently access, connect, and operate the charging station.

Disability Types

Mobility, Dexterity, Vision, Cognitive

Information Items

A.4.1 Reach Distance

Indicates the minimum perpendicular distance a driver must reach between obstacles and key charging components such as the connector socket, cable, or interfaces.

A.4.2 Connector Type

Specifies the type and format of the connector interface.

A.4.3 Cable Length

Describes the total usable length of the charging cable.

A.4.4 Cable Weight

Indicates the effective handling weight of the charging cable, considering factors such as cable length, stiffness, and the presence of a cable management system

A.4.5 Cable Management System

Indicates whether the charging station includes a cable management system that assists in storing, lifting, or organizing the cable.

A.4.6 Timeout

Defines the maximum time allowed between key steps in the charging process before the session automatically expires or cancels.

A.4.7 Extended Timeouts

Indicates whether the charging system offers an option to extend or adjust timeouts during operation.

A.4.8 Standards

Lists relevant accessibility or ergonomic standards the charging equipment complies with.

A.4.9 Photos

Provides representative images of the charging station, including connectors, cables, and user interfaces.

3. Accessibility support in OCPI 3.0

To add accessibility support in OCPI 3.0, we need to extend the existing OCPI 3.0 specification with additional object types and properties. These changes only effect existing functional use cases of the Location Module. Therefore, no new use cases are introduced and only the existing ones are extended with additional information.

3.1. Object Type Definitions

3.1.1. AccessLevel *Enum*

Indicates whether the parking bay and the charging station are located on the same level, providing step-free or otherwise accessible access between them

| Value | Description |
|-----------------------|---|
| SAME_LEVEL | Parking bay and charging station are on the same level; no step, curb, or height difference. |
| ACCESSIBLE_TRANSITION | Small height difference bridged by a ramp, beveled edge, or dropped curb, providing an accessible transition between the parking bay and the chargepoint. |
| LEVEL_DIFFERENCE | Step, curb, or significant height difference without an accessible transition. |

3.1.2. ChargingStation *Class*

The ChargingStation object describes a device that is physically distinct and has a single user interface. It always belongs to a Location object. The object only contains directions to get from the central Location entrance to the Charging Station (i.e. floor, physical_reference or directions).

| Property | Type | Required | Description |
|----------------------------|------------------------|----------|---|
| reach_distance | decimal | no | Minimum perpendicular distance in meters a driver has to reach between obstacles and key objects. |
| operation_timeout | decimal | no | Defines the maximum time allowed in seconds between key steps in the charging process |
| extended_operation_timeout | boolean | no | Indicates whether the system offers the option to extend timeouts |
| standards | Array of CiAsciiString | no | A list of standards that the ChargingStation conforms to. |

3.1.3. Connector *Class*

A Connector is the socket or cable and plug available for the EV to use.

| Property | Type | Required | Description |
|-------------------------|------------------------|----------|--|
| cable_weight | decimal | no | Indicates the effective handling weight of the charging cable in kilograms, considering factors such as cable length, stiffness, and the presence of a cable management system |
| cable_management_system | boolean | no | Indicates whether a system is present to assist with storing, lifting, or organizing the cable |
| images | Array of Image | no | Images related to the connector. |
| standards | Array of CiAsciiString | no | A list of standards that the Connector conforms to. |

3.1.4. EVSEParking *Class*

A link between an EVSE and a Parking object. The presence of an EVSEParking object in an EVSE indicates that a certain parking space can be used when charging at that EVSE.

| Property | Type | Required | Description |
|--------------|-------------|----------|---|
| access_level | AccessLevel | no | Indicates whether the parking bay and the charging station are located on the same level, providing step-free or otherwise accessible access between them |

3.1.5. ImageCategory *Enum*

Describes what the image is used for.

| Value | Description |
|-----------|--------------------------|
| CONNECTOR | Photo of the connector. |
| PARKING | Photo of the parking bay |

3.1.6. Location *Class*

Represents a location in the OCPI schema.

| Property | Type | Required | Description |
|----------------------------|------------------------|----------|---|
| assistance_service_details | AsciiString[1..1024] | no | Additional details about the assistance services available at the location. |
| standards | Array of CiAsciiString | no | A list of standards that the location conforms to. |

3.1.7. LocationService *OpenEnum*

Optional list of services that are offered at the Location by the CPO or their affiliated partners.

| Value | Description |
|----------------------|--|
| ACCESSIBLE_TOILETS | Indicates whether the charging location provides toilet facilities that are accessible to people with disabilities |
| EMERGENCY_ASSISTANCE | Indicates whether immediate help can be summoned in case of an incident |

3.1.8. Parking Class

Describes a parking space that a vehicle can be parked in while charging.

| Property | Type | Required | Description |
|----------------|----------------|----------|---|
| protected_area | boolean | no | Indicates whether the parking space includes an adjacent marked or hatched area |
| surface | Surface | no | The surface of the parking bay |
| slope | Slope | no | The slope of the parking bay |
| images | Array of Image | no | Images related to the Parking such as photos or diagrams. |

3.1.9. Slope Enum

Slope of the parking bay

| Value | Description |
|----------------|---------------------------|
| FLAT | Level surface |
| SLOPED | Moderately sloped surface |
| STEEPLY_SLOPED | Steeply sloped surface |

3.1.10. Surface Enum

Surface of the parking bay

| Value | Description |
|----------|---|
| ASPHALT | Hard asphalt surface |
| CONCRETE | Hard concrete surface |
| TILES | Firm surface made of paving tiles or pavers |
| GRAVEL | Loose gravel surface |
| GRASS | Natural grass surface |
| SOIL | Bare or compacted earth surface |

3.2. Summary

3.2.1. AccessLevel *OpenEnum*

| Item | Value | Status |
|------------------------|-----------------------|--------|
| A.3.6 Step-Free Access | SAME_LEVEL | New |
| A.3.6 Step-Free Access | ACCESSIBLE_TRANSITION | New |
| A.3.6 Step-Free Access | LEVEL_DIFFERENCE | New |

3.2.2. ChargingStation *Class*

| Item | Property | Status |
|-------------------------|----------------------------|----------|
| A.4.1 Reach Distance | reach_distance | New |
| A.4.6 Timeout | operation_timeout | New |
| A.4.7 Extended Timeouts | extended_operation_timeout | New |
| A.4.8 Standards | standards | New |
| A.4.9 Photos | images | Existing |

3.2.3. Connector *Class*

| Item | Property | Status |
|-------------------------------|-------------------------|----------|
| A.4.2 Connector Type | standard | Existing |
| A.4.3 Cable Length | cable_length | Existing |
| A.4.4 Cable Weight | cable_weight | New |
| A.4.5 Cable Management System | cable_management_system | New |
| A.4.8 Standards | standards | New |
| A.4.9 Photos | images | New |

3.2.4. EVSEParking *Class*

| Item | Property | Status |
|---------------------------------|---------------|----------|
| A.3.6 Step-Free Access | access_level | New |
| A.3.8 Charging Station Position | evse_position | Existing |

3.2.5. ImageCategory *OpenEnum*

| Item | Value | Status |
|----------------------|----------|----------|
| A.1.6 & A.2.7 Photos | LOCATION | Existing |

| Item | Value | Status |
|---------------|-----------|----------|
| A.4.9 Photos | CHARGER | Existing |
| A.4.9 Photos | CONNECTOR | New |
| A.3.11 Photos | PARKING | New |

3.2.6. Location *Class*

| Item | Property | Status |
|---|----------------------------|----------|
| A.1.1, A.1.3, A.1.4, A.2.1, A.2.2, and A.2.3 Services | services | Existing |
| A.1.2 Assistance Services Details | assistance_service_details | New |
| A.1.5 Accessibility Standards | standards | New |
| A.1.6 & A.2.7 Photos | images | Existing |

3.2.7. LocationService *OpenEnum*

| Item | Value | Status |
|--------------------------------------|----------------------|----------|
| A.1.1 Assistance Services Available | ASSISTANCE | Existing |
| A.2.1 Assistance Services Available | ASSISTANCE | Existing |
| A.1.3 Accessible Toilets Available | ACCESSIBLE_TOILETS | New |
| A.1.4 Accessible Charging Available | ACCESSIBLE_CHARGING | Existing |
| A.2.2 Safety Measures | CAMERA_SURVEILLANCE | Existing |
| A.2.2 Safety Measures | PERIMETER_FENCE | Existing |
| A.2.3 Emergency Assistance Available | EMERGENCY_ASSISTANCE | New |

3.2.8. Parking *Class*

| Item | Property | Status |
|--------------------------------|----------------------|----------|
| A.2.4 Lighting | lighting | Existing |
| A.2.5 Roofed Area | roofed | Existing |
| A.2.6 Safety Standards | standards | Existing |
| A.3.1 Parking Space Width | parking_space_width | Existing |
| A.3.2 Parking Space Length | parking_space_length | Existing |
| A.3.3 Protected Area Available | protected_area | New |
| A.3.4 Surface | surface | New |
| A.3.5 Slope | slope | New |

| Item | Property | Status |
|----------------------------|----------------------|----------|
| A.3.7 Parking Direction | direction | Existing |
| A.3.9 Parking Restrictions | parking_restrictions | Existing |
| A.3.10 Standards | standards | Existing |
| A.3.11 Photos | images | Existing |

3.2.9. Slope *OpenEnum*

| Item | Value | Status |
|-------------|----------------|--------|
| A.3.5 Slope | FLAT | New |
| A.3.5 Slope | SLOPED | New |
| A.3.5 Slope | STEEPLY_SLOPED | New |

3.2.10. Surface *OpenEnum*

| Item | Value | Status |
|---------------|----------|--------|
| A.3.4 Surface | ASPHALT | New |
| A.3.4 Surface | CONCRETE | New |
| A.3.4 Surface | TILES | New |
| A.3.4 Surface | GRAVEL | New |
| A.3.4 Surface | GRASS | New |
| A.3.4 Surface | SOIL | New |

4. Accessibility support in OCPI 2.3.0

To add accessibility support in OCPI 2.3.0, we need to extend the existing OCPI 2.3.0 specification with additional object types and properties. These changes only effect existing interfaces and endpoints of the Locations Module. Therefore, no new interfaces or endpoints are introduced and only object descriptions and data types are extended with additional information.

4.1. Object Descriptions

4.1.1. Location *Object*

Represents a location in the OCPI schema.

| Property | Type | Card. | Description |
|----------------------------|-----------------|-------|--|
| services | LocationService | * | Services that are offered at the Location. |
| assistance_service_details | string[1..1024] | ? | Additional details about the assistance services available at the location. |
| standards | CiString[36] | * | A list of standards that the location conforms to. |
| images | Image | * | Images related to the Location such as photos of the site or the facilities. |

4.1.2. EVSE *Object*

The *EVSE* object describes the part that controls the power supply to a single EV in a single session.

| Property | Type | Card. | Description |
|----------------------------|--------------|-------|--|
| reach_distance | number | ? | Minimum perpendicular distance in centimeters a driver has to reach between obstacles and key objects. |
| operation_timeout | number | ? | Defines the maximum time allowed in seconds between key steps in the charging process |
| extended_operation_timeout | boolean | ? | Indicates whether the system offers the option to extend timeouts |
| standards | CiString[36] | * | A list of standards that the ChargingStation conforms to. |
| images | Image | * | Images related to the EVSE. |

4.1.3. Connector *Object*

A Connector is the socket or cable and plug available for the EV to use.

| Property | Type | Card. | Description |
|-------------------------|---------|-------|--|
| cable_length | number | ? | The length of the attached cable in centimeters. Only applicable if the connector type is one where the cable is part of the Charging Station. |
| cable_weight | number | ? | Indicates the effective handling weight of the charging cable in kilograms, considering factors such as cable length, stiffness, and the presence of a cable management system |
| cable_management_system | boolean | ? | Indicates whether a system is present to assist with storing, lifting, or organizing the cable |

4.1.4. Parking *Object*

Describes a parking space that a vehicle can be parked in while charging.

| Property | Type | Card. | Description |
|----------------|---------|-------|---|
| protected_area | boolean | ? | Indicates whether the parking space includes an adjacent marked or hatched area |
| surface | Surface | ? | The surface of the parking bay |
| slope | Slope | ? | The slope of the parking bay |

4.2. Data Types

4.2.1. AccessLevel *Enum*

Indicates whether the parking bay and the charging station are located on the same level, providing step-free or otherwise accessible access between them

| Value | Description |
|-----------------------|---|
| SAME_LEVEL | Parking bay and charging station are on the same level; no step, curb, or height difference. |
| ACCESSIBLE_TRANSITION | Small height difference bridged by a ramp, beveled edge, or dropped curb, providing an accessible transition between the parking bay and the chargepoint. |
| LEVEL_DIFFERENCE | Step, curb, or significant height difference without an accessible transition. |

4.2.2. EVSEParking *class*

A link between an EVSE and a Parking object. The presence of an EVSEParking object in an EVSE indicates that a certain parking space can be used when charging at that EVSE.

| Property | Type | Card. | Description |
|--------------|-------------|-------|---|
| access_level | AccessLevel | ? | Indicates whether the parking bay and the charging station are located on the same level, providing step-free or otherwise accessible access between them |

4.2.3. ImageCategory *OpenEnum*

Describes what the image is used for.

| Value | Description |
|-----------|--------------------------|
| CONNECTOR | Photo of a connector |
| PARKING | Photo of the parking bay |

4.2.4. LocationService *OpenEnum*

Services that are offered at the Location.

| Value | Description |
|----------------------|---|
| ACCESSIBLE_CHARGING | One or more EVSEs have accessibility modifications in place to allow use by people with disabilities. Note that more information on accessibility modifications can be provided using the various fields for images and in the parking field of the EVSE object. |
| ACCESSIBLE_TOILETS | Indicates whether the charging location provides toilet facilities that are accessible to people with disabilities |
| ASSISTANCE | Assistance from on-site staff is available to help a Driver charge at the Location. |
| CAMERA_SURVEILLANCE | Security monitoring with video cameras is in place at the Location. |
| EMERGENCY_CALL | A voice communication channel is available for the Driver to contact security staff from the Location. |
| EMERGENCY_ASSISTANCE | Indicates whether immediate help can be summoned in case of an incident |
| PERIMETER_FENCE | A security fence or wall is in place around the Location to keep unauthorized people out. |

4.2.5. Slope *Enum*

Slope of the parking bay

| Value | Description |
|----------------|---------------------------|
| FLAT | Level surface |
| SLOPED | Moderately sloped surface |
| STEEPLY_SLOPED | Steeply sloped surface |

4.2.6. Surface *Enum*

Surface of the parking bay

| Value | Description |
|----------|---|
| ASPHALT | Hard asphalt surface |
| CONCRETE | Hard concrete surface |
| TILES | Firm surface made of paving tiles or pavers |
| GRAVEL | Loose gravel surface |
| GRASS | Natural grass surface |
| SOIL | Bare or compacted earth surface |

4.3. Summary

4.3.1. AccessLevel *OpenEnum*

| Item | Value | Status |
|------------------------|-----------------------|--------|
| A.3.6 Step-Free Access | SAME_LEVEL | New |
| A.3.6 Step-Free Access | ACCESSIBLE_TRANSITION | New |
| A.3.6 Step-Free Access | LEVEL_DIFFERENCE | New |

4.3.2. Connector *Object*

| Item | Property | Status |
|-------------------------------|-------------------------|----------|
| A.4.2 Connector Type | standard | Existing |
| A.4.3 Cable Length | cable_length | New |
| A.4.4 Cable Weight | cable_weight | New |
| A.4.5 Cable Management System | cable_management_system | New |
| A.4.8 Standards | standards | New |
| A.4.9 Photos | images | New |

4.3.3. EVSE *Object*

| Item | Property | Status |
|----------------------------|----------------------|----------|
| A.3.9 Parking Restrictions | parking_restrictions | Existing |
| A.4.1 Reach Distance | reach_distance | New |
| A.4.6 Timeout | operation_timeout | New |

| Item | Property | Status |
|-------------------------|----------------------------|----------|
| A.4.7 Extended Timeouts | extended_operation_timeout | New |
| A.4.8 Standards | standards | New |
| A.4.9 Photos | images | Existing |

4.3.4. EVSEParking Class

| Item | Property | Status |
|---------------------------------|---------------|----------|
| A.3.6 Step-Free Access | access_level | New |
| A.3.8 Charging Station Position | evse_position | Existing |

4.3.5. ImageCategory OpenEnum

| Item | Value | Status |
|----------------------|-----------|----------|
| A.1.6 & A.2.7 Photos | LOCATION | Existing |
| A.4.9 Photos | CHARGER | Existing |
| A.4.9 Photos | CONNECTOR | New |
| A.3.11 Photos | PARKING | New |

4.3.6. Location Class

| Item | Property | Status |
|---|----------------------------|----------|
| A.1.1, A.1.3, A.1.4, A.2.1, A.2.2, and A.2.3 Services | services | New |
| A.1.2 Assistance Services Details | assistance_service_details | New |
| A.1.5 Accessibility Standards | standards | New |
| A.1.6 & A.2.7 Photos | images | Existing |

4.3.7. LocationService OpenEnum

| Item | Value | Status |
|-------------------------------------|---------------------|--------|
| A.1.1 Assistance Services Available | ASSISTANCE | New |
| A.2.1 Assistance Services Available | ASSISTANCE | New |
| A.1.3 Accessible Toilets Available | ACCESSIBLE_TOILETS | New |
| A.1.4 Accessible Charging Available | ACCESSIBLE_CHARGING | New |
| A.2.2 Safety Measures | CAMERA_SURVEILLANCE | New |
| A.2.2 Safety Measures | PERIMETER_FENCE | New |

| Item | Value | Status |
|--------------------------------------|----------------------|--------|
| A.2.3 Emergency Assistance Available | EMERGENCY_ASSISTANCE | New |

4.3.8. Parking *Class*

| Item | Property | Status |
|--------------------------------|----------------------|----------|
| A.2.4 Lighting | lighting | Existing |
| A.2.5 Roofed Area | roofed | Existing |
| A.2.6 Safety Standards | standards | Existing |
| A.3.1 Parking Space Width | parking_space_width | Existing |
| A.3.2 Parking Space Length | parking_space_length | Existing |
| A.3.3 Protected Area Available | protected_area | New |
| A.3.4 Surface | surface | New |
| A.3.5 Slope | slope | New |
| A.3.7 Parking Direction | direction | Existing |
| A.3.10 Standards | standards | Existing |
| A.3.11 Photos | images | Existing |

4.3.9. Slope *OpenEnum*

| Item | Value | Status |
|-------------|----------------|--------|
| A.3.5 Slope | FLAT | New |
| A.3.5 Slope | SLOPED | New |
| A.3.5 Slope | STEEPLY_SLOPED | New |

4.3.10. Surface *OpenEnum*

| Item | Value | Status |
|---------------|----------|--------|
| A.3.4 Surface | ASPHALT | New |
| A.3.4 Surface | CONCRETE | New |
| A.3.4 Surface | TILES | New |
| A.3.4 Surface | GRAVEL | New |
| A.3.4 Surface | GRASS | New |
| A.3.4 Surface | SOIL | New |