

NOTE: This is a proposed amendment to the Ann Arbor Unified Development Code. Specifically, it concerns the required installation of three electric vehicle charging infrastructures for new building, or any modifications to an existing building that will trigger a site plan: EV-Capable, EV-Ready, and EV-Installed.

The Ann Arbor Unified Development Code shall be amended by adding to the definitions Section (Article VIII:Definitions)

Electric Vehicle (EV): An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current which is charged by being plugged into an electrical source. For the purpose of this ordinance, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

Electric Vehicle Supply Equipment (EVSE): Conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the purpose of transferring energy between the premises and the electric vehicle.

EV-Capable (EV-C): Refers to installed electrical panel capacity with a dedicated branch circuit and a continuous raceway from the panel to future EV parking spaces.

EV-Ready (EV-R): Refers to the following components: The entirety of the elements contained in the EV-Capable definition, in addition to the installation of a minimum 40-amp circuit breaker and suitable wiring that is continuous from the installed circuit breaker to an appropriate termination point such as a junction box or charging outlet.

EV-Installed (EV-I): Refers to a parking space that is completely ready to provide charging to an EV. This parking space must contain the entirety of the elements contained in the EV-Capable and EV-Ready definitions, in addition to a charging station.

to Article IV: Development Standards 5.19

5.19.1 Applicability

A, No New Building or major renovation to an existing building shall be erected unless the parking for bicycles, motor vehicles and **electric vehicles** required by this section 5.19 is provided.

To **Table 5:19-1** add a new column **required electric vehicle charging spaces (where the number of EV-C, -R or -I spaces to be installed are to be rounded up to the next integer.)**
Where final number exceeds total required, proposed or existing parking spaces, reduce EV-C by the exceeded number of spaces.

(add table requirements)

to Table 5.19-2 Stall and Aisle Standards add to footnote 3:

Barrier Free Spaces shall have electric vehicle charging access according to **Table 5.19-3**

Section 5.19.3 Special Parking Districts.

15% of all parking spaces provided on-site in the special parking district shall include Electric Vehicle charging stations.

Add to Section 5.19.8 Design of Vehicle Parking Facilities

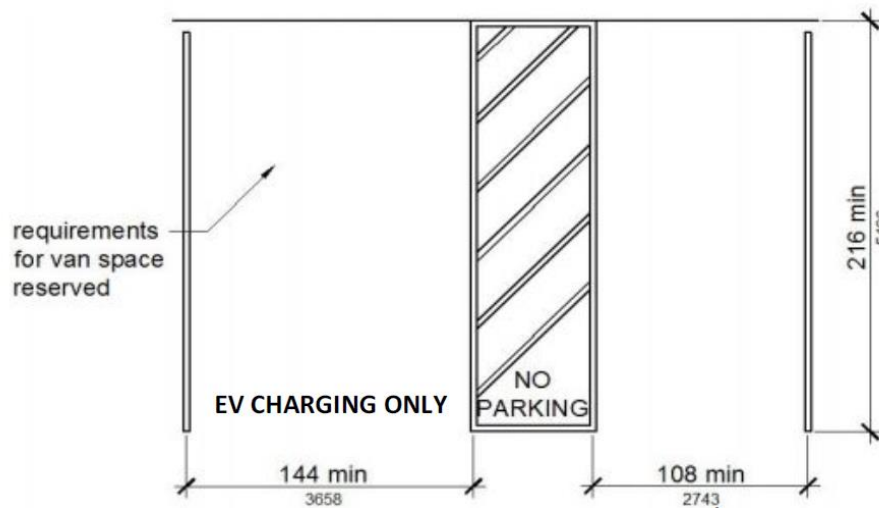
G. All Parking shall have at least the percent of EV charging infrastructure noted in Table 5.19.2. If the percentage results in a fraction, the number of EV charging sites shall be rounded up to the next whole number. The following provisions must be met in accordance with the apportioned EV-designated parking spaces contained in Table 5.19.2.

1. **EV Capable infrastructure(EV-C)** shall include a raceway, which is continuous from the branch circuit / feeder panel location to the future EV parking space. The raceway shall be sized and installed per the National Electrical Code; however, in no case shall the EV infrastructure raceway be less than 1" (one inch) in size. The EV infrastructure raceway shall include a pull rope or line installed for future conductor installation, with the raceway sealed and labeled for future use. The point of termination shall be clearly marked and labeled "FOR FUTURE EV CHARGER." In addition, the dedicated branch circuit / feeder panel space shall be stenciled or marked legibly with the following text: "FUTURE ELECTRIC VEHICLE CHARGING CIRCUIT".
2. **EV-Ready infrastructure(EV-R)** shall include the following components: a listed raceway (conduit) --sized and installed per the National Electrical Code that shall in no case ever be less than 1" (one inch) in size-- which is continuous from the branch circuit / feeder panel location to a 208/240 volt charging outlet/junction box, provided a minimum electrical panel service of 40-ampere, 208/240-volt branch circuit per EV parking space, overcurrent protection devices, wiring, and suitable termination points such as a junction box or 208/240 watt charging outlet with a service loop or directly landed within an EV (i.e. full circuit). The junction box shall be clearly marked and labeled "EV READY OUTLET".
3. **EV-Installed infrastructure(EV-I)** shall include the entirety of the infrastructure elements from section G, subsections 1 and 2 (EV Capable and EV-Ready Outlet), as well as an EVSE-installed parking space must include a Level 2 (240V) EV charging station.
4. The proposed placement and installation of EV infrastructure or equipment shall not allow for any violation of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101).
5. The placement of EV charging infrastructure shall not create a trip hazard or violation of the accessible path of travel when the cord is connected to an EV or PHEV.

H. Where parking spaces are separated into distinct areas, separate garages or lots, EV charging infrastructure(EV-C, EV-R, EV-I) shall be evenly distributed among all separate areas by their required percentages. Exceptions to this dispersal may be made by the Planning Manager at their discretion. Where a project is to be phased EV infrastructure shall be distributed according to the final plan and installed as part of each phase according to that distribution. "Where a project is to be phased EV infrastructure shall be distributed according to the final plan and installed as part of each phase according to that distribution. EV charging infrastructure shall be determined by the number of required spaces and shall be installed as part of the proposed spaces and shall not be deferred."

I.The proposed placement and installation of EV infrastructure or equipment shall not allow for any violation of the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101).

1. The minimum number of electric vehicle charging stations (EVCS) as dictated by **Table 5:19-3** shall meet the accessibility requirements as shown in Graphic 5:19-1



Graphic 5:19-1

- a. Where an EV charger can simultaneously charge more than one vehicle, the number of EVCS provided shall be considered equivalent to the number of EVs that can be simultaneously charged.

Table 5:19-3 Accessible EV Charging Stations Required

Total number of EVCS	Minimum Number of EVCS Required	
	Van Accessible	Standard Accessible
1 to 4	1	0
5 to 25	1	1
26 to 50	1	1
51 to 75	1	2
76 to 100	1	3
101 and over	1, plus 1 for each 300, or fraction thereof, over 100	3, plus 1 for each 60, or fraction thereof, over 100

J. Requirements for the City of Ann Arbor (San Francisco Ordinance pgs. 27/28)

Requirements for the City of Ann Arbor Construction and Building Department.

- a) The Director of the Construction and Building Department shall make available, at least annually, to the Office of Sustainability and Innovation a list of buildings and facilities 'that have been approved to comply with the Electric Vehicle Charging requirements, as identified in the Ann Arbor Unified Development Code table 5:19-1.

Requirements for the Office of Sustainability and Innovation

- a) The Office of Sustainability and Innovation shall maintain a list of Electric Vehicle Capable/Ready/Installed buildings and facilities in Ann Arbor and make said list available to the public, in addition to any applicable current or upcoming financing, subsidies, or incentives for the installation of electric vehicle chargers.

K. Electrical Supply

1. In order for EVs to provide the maximum environmental and, in most cases, financial benefits to their owners and in support of the City of Ann Arbor's carbon neutrality goals, it is recommended that EV chargers be powered by a renewable energy source.

Commented [1]: Proposed language the working group agreed should be added in it's 1/28/20 meeting.