



## **ELECTRIC VEHICLE READINESS REQUIREMENTS FOR NEW CONSTRUCTION (MULTI-FAMILY AND NONRESIDENTIAL BUILDINGS)**

As of January 1, 2020, builders are required to provide various levels of plug-in electric vehicle (EV) infrastructure in all new construction of multi-family (3 units or more) and nonresidential buildings, including design for compliance with state accessibility requirements for EV infrastructure. The new requirements are designed to accelerate the installation of electric vehicle charging stations in West Hollywood to avoid costly future retrofits and address the growing demand. Exact requirements vary depending on whether the building is nonresidential or residential, as well as the number of units constructed, as described below.

**New Multi-family Buildings with 3-9 Units:** Ten percent (10%) of the total number of on-site parking spaces provided for all types of parking facilities shall be "EV Capable" and have an accessible conduit installed that is capable of supporting future EV Service Equipment (EVSE). Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

**New Multi-family Buildings with 10 or More Units and New Nonresidential Buildings:** Refer to Table 1, below, for detailed requirements. All EV Charging infrastructure and EVSE (when installed) shall be in accordance with the California Electrical Code.

**Table 1. EV Charging Requirements for New Multifamily (10+ Units) and New Nonresidential**

	<b>1 Parking Space</b>	<b>2-10 Parking Spaces</b>	<b>11-15 Parking Spaces</b>	<b>16-20 Parking Spaces</b>	<b>20 + Parking Spaces</b>
<b>Full Circuit "EV READY"</b>	1 parking space	2 parking spaces	2 parking spaces	2 parking spaces	10% of parking spaces (rounded up)
<b>Inaccessible Conduit "EV CAPABLE"</b>	—	—	1 Parking Space	2 Parking Spaces	Multi-Family: Remaining 90% of spaces Nonresidential: Additional 10%
<b>Electric Panel Capacity</b>	Sufficient to supply 1 space	Sufficient to supply 2 spaces	Sufficient to supply 3 spaces	Sufficient to supply 4 spaces	Sufficient to supply 20% of spaces

\*Full circuits are counted towards the panel capacity requirement. Panel capacity may be dispersed among up to 100% of spaces at lower amperage (See Definitions below) with a voluntary load management system.

**NOTE:** Mixed-use developments will comply as required for each residential and nonresidential use. Where there are both common use and assigned parking spaces, "EV Ready" spaces shall be located in common use spaces and "EV Capable" spaces shall be located in assigned spaces.



## DEFINITION OF TERMS

**Full Circuit:** Full circuits are “ready to go” with the addition of an EV charging station (EVCS). Full circuit installations include 208/240V 40-amp panel capacity, conduit, wiring, and overprotection devices. The endpoint of the system must be near the planned EV charger location.

**Inaccessible Conduit:** Conduit that will be difficult to access/alter after construction (e.g. enclosed within walls or pavement, etc.). Conduit must be installed during new construction to avoid expensive and intrusive retrofits when additional EV charging capacity is needed in the future.

**Electric Panel Capacity:** Panels must have space and electrical capacity to accommodate simultaneous charging on a 40-amp circuit per required number of EV parking spaces in Table 1.

**Load Management Technology:** Hardware or software used to efficiently allocate electric current drawn by multiple electric vehicle charging stations by either directing current to each EVCS in use (i.e. 40 amps/ vehicle) or when more vehicles than the maximum than can be served at 40 amps each are charging simultaneously, reducing current drawn by each vehicle.

**Electric Vehicle Charging Station (EVCS):** One or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.

## EXEMPTIONS

Case-by-case basis if EV charging infrastructure is not feasible due to:

### Residential:

- ⇒ If the requirements will result in modifications to the local utility infrastructure and the costs of the homeowner or developer are more than \$400 per dwelling unit and \$400 per parking space, the building must maximize EV charging infrastructure compliance while remaining below the cost threshold.

### Nonresidential:

- ⇒ Insufficient electrical supply
- ⇒ Utility-side cost increases by more than \$400 per parking space.

If your project qualifies under these exemptions, please contact Planning & Development Services.

## 1) PLAN CHECK

These EV Readiness requirements only apply to new construction. As such, all residential and nonresidential new construction projects that require building, mechanical, electrical, or plumbing permits are required to submit a plan check application, plans, and plan check fees for the appropriate discipline to the City. The EV Readiness requirements in Table 1 necessitate an electrical permit and the plan check process will ensure compliance with the new EV requirements and accessibility requirements before construction begins.



## 2) LABELING

Plans must be clearly and permanently labeled as necessary to complete projects with full circuits in the future.

- ⇒ Service panels must identify full circuits available for EV charging as “**EV Ready**”
- ⇒ Service panels designated for future additional EV charging must be identified as “**EV Capable**”
- ⇒ Conduit endpoints must be marked as “**EV Ready**” for full circuits and “**EV Capable**” for inaccessible conduit installed

Four Levels of EV Preparedness:



## 3) REQUIRED DOCUMENTATION

Construction documents for all projects must contain the following:

### Electrical Panel:

- ⇒ Verify panel allowable capacity
- ⇒ Verify electrical system (including on-site transformer if applicable) has sufficient capacity for charging

### Accessibility Design:

- ⇒ Plan for accessible parking spaces as required per standards in Table 2

### Conduit:

- ⇒ Wiring schematics
- ⇒ Conduit type
- ⇒ Conduit termination point
- ⇒ Proposed location of future EV spaces and EV charging stations.

## 4) CHAPTER 11B (NONRESIDENTIAL) ACCESSIBILITY DESIGN REQUIREMENTS

Beginning January 1, 2017, per Section 11B-812 of Chapter 11B of Title 24 of the California Building Code (CBC), new EVCS in buildings that are subject to Chapter 11B (Public Buildings, Public Accommodations, Commercial Buildings and Public Housing) must comply with specific accessibility requirements. **The City of West Hollywood requires that original construction documents address key aspects of accessibility for future EVCS.**

Builders must show that spaces equipped with full circuits are constructed to meet Chapter 11B **slope, height, accessibility, and accessible route** requirements at the time of construction. The number and type of accessible spaces required are shown in Table 2.

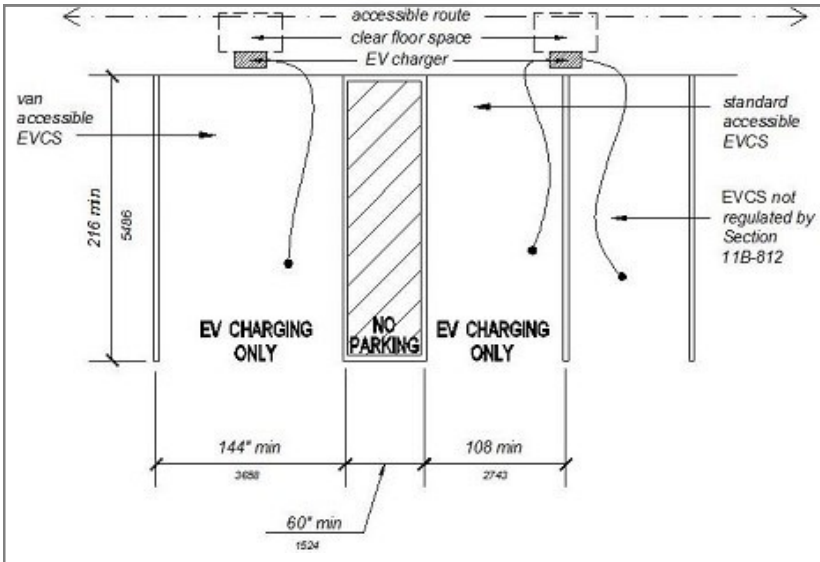


**Table 2. Minimum number of Accessible EVCS to Comply with Section 11B-812\*\***

Parking Space Type	Number of Total Future EV Parking Spaces					
	1-4	5-25	26-50	51-75	76-100	101 +
<b>Van Accessible</b>	1*	1	1	1	1	1 + 1 for each 300 or fraction thereof over 100
<b>Standard Accessible</b>	0	1*	1	2	3	3 + 1 for each 60 or fraction thereof over 100
<b>Ambulatory</b>	0	0	1*	2*	3*	3 + 1 for each 50 or fraction thereof over 100

\*Accessible EVCS designed for accessibility, but not reserved for exclusive use by disabled persons (i.e. not marked with the International Symbol of Accessibility (ISA)).

\*\*Where an EV charger can simultaneously charge more than one vehicle, the number of EVCS provided shall be considered equivalent to the number of electric vehicles that can be charged simultaneously.

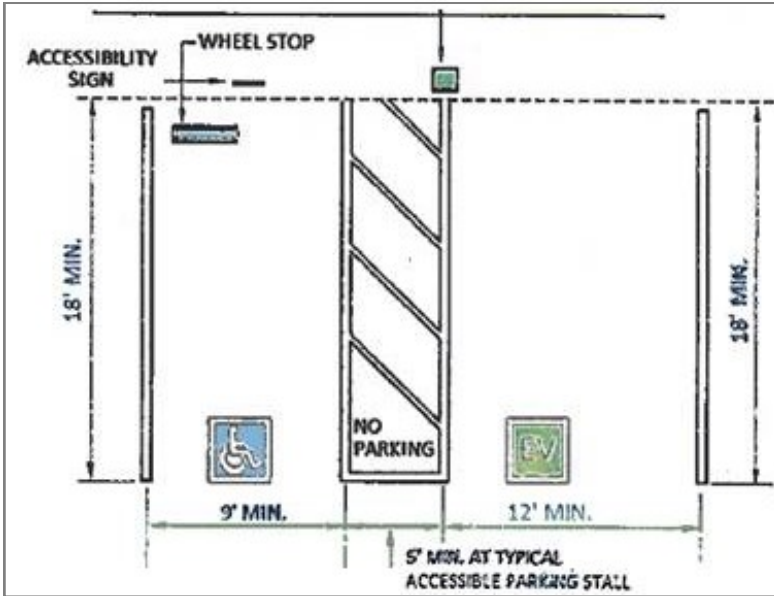


Figures 1 and 2 show sample EVCS parking schematics that meet the accessibility requirements codified in Chapters 11B and 11A of Title 24 of the CBC. Construction documents are required to demonstrate the potential for EV charging by showing planned areas and parking spaces to be used for future EV charging, labeled infrastructure, and design for compliance with accessibility requirements.

**Figure 1.** Example of CBC Chapter 11B compliant Accessible EVCS parking layout with fewer than 5 EVCS.



**5) CHAPTER 11A (MULTI-FAMILY) ACCESSIBILITY DESIGN REQUIREMENTS**



Multi-family residential projects are subject to the accessible parking requirements of Chapter 11A of Title 24 of the CBC. EVCS must be located adjacent to and be operable by an accessible space.

Builders must show that spaces equipped with full circuits are designed to meet Chapter 11A requirements at the time of construction. For multi-family projects, one (1) of every 25 EVCS must be van accessible and located in a common use area.

**Figure 2.** Example of CBC Chapter 11A compliant van accessible EVCS parking layout with EVCS located adjacent to an accessible space.

**QUESTIONS & CONTACT INFORMATION**

Do you believe your project would be better served by Level 1 or DC Fast Chargers? If you have any questions or need assistance complying with the new requirements, contact the City of West Hollywood Planning and Development Services Department:

**Planning and Development Services: (323) 848-6475**