

NOTE: This document is a staff draft based on input from stakeholders. It is provided as a draft for public comment and not for citation. Comments may be submitted (ideally in underline and strike through) by August 16, 2021 to jsollod@iccsafe.org. A discussion session will be held on August 9, 11-1 ET (register [here](#)).

EV Infrastructure in Building Codes: Greenhouse Gas Reduction Resource

Introduction

Electrification of the transportation sector has been identified as an essential step in achieving greenhouse gas (GHG) reduction goals to combat a changing climate. The built environment will need to facilitate battery charging infrastructure that supports the increasing deployment of electric vehicles (EVs) across the nation to meet GHG reduction targets. Building codes have been identified as a mechanism to help advance deployment of EV charging infrastructure.

EV infrastructure requirements in building codes support the transition towards EV ownership throughout the country by increasing access to parking spaces with charging stations. Current EV charging provisions in building codes, as shown below, typically require new buildings and major renovations to include a mixture of parking spaces with installed EV charging infrastructure and some with the necessary electrical equipment to support the future installation of EV charging stations as EV use continues to grow. The installation of EV electrical equipment into new buildings decreases installation costs of charging stations by 75 percent compared to installation during a building retrofit.¹ Jurisdictions considering EV infrastructure installation requirements in building codes should take into consideration these potential future savings with the increased initial construction costs and the needs and resources of the community's homes and businesses, among other things.

This resource provides background on the emergence of ~~EV electric vehicles~~ and presents the solutions select jurisdictions have deployed to support its expansion. ~~Also included is model language that communities can use to set their own policies. The model language is designed to provide communities with approaches that reflect local conditions and needs. This language is consistent with the content of the International Codes (I-Codes) including the International Energy Conservation Code (IECC), International Building Code (IBC) and the International Residential Code (IRC), and was developed with input from key stakeholders, as identified in the appendix.~~

Common EV-Integrated Building Code Strategies

There are three EV parking space charging infrastructure strategies that buildings codes include for new buildings: EV-Capable, EV-Ready and EV-Installed.

EV-Capable: Parking spaces that have the electrical panel capacity and conduit installed during construction to support future implementation of EV charging with 208/240-volt, 40-ampere

¹ Southwest Energy Efficiency Project, "[EV Infrastructure Building Codes: Adoption Toolkit](#)," (2020).

circuits. This strategy ensures the reduction of up-front costs for EV charging station installation by providing the electrical elements that are difficult to install during a retrofit.

EV-Ready: Parking spaces that have full circuit installations of 208/240-volt, 40-ampere panel capacity, raceway wiring, receptacle and circuit overprotection devices. This strategy supports the installation of EV charging stations and includes all required electrical specifications for the implementation of EV Supply Equipment (EVSE).

EV-Installed: Charging Stations or EVSE that are fully installed during new construction.

Current Approaches to EV-Integrated Codes

This section highlights some of the approaches to EV-integrated building codes that are harnessed by various local governments. *Table 1* highlights EV infrastructure code provisions that are currently implemented across North America. These approaches can help communities determine the best combination of EV space types and numbers to meet their individual GHG reduction targets.

International Green Construction Code – Model Code

The 2021 International Green Construction Code (IgCC) includes the following requirements for the installation of EVSE:

501.3.7.3 Electric vehicle charging facilities.

Where 20 or more on-site vehicle parking spaces are provided for International Building Code (IBC) Occupancy Group A, B, E, F, I, M, and S buildings, not less than 4% of the total number of parking spaces or not less than 8% of designated employee only parking spaces shall be *EV-Ready spaces*. Where 10 or more on-site vehicle parking spaces are provided for IBC Occupancy Group R-1, R-2, and R-4 buildings, not less than 20% of the total number of parking spaces shall be *EV-Ready spaces*. The required number of *EV-Ready spaces* shall be rounded up to the next highest whole number.

Exception: Parking spaces designated for other than passenger vehicles are permitted to be excluded from the total number of on-site parking spaces.

California – State Level

California set ambitious targets for ZEH charging infrastructure to support their mission of having 5 million ZEHs by 2030. The state plans to install 250,000 shared plug-in electric vehicle chargers, including 10,000 DCFCs and 200 hydrogen stations by 2050. The 2020 California Green Building Code's (CALGreen) includes provisions for EV infrastructure requirements in new multifamily, residential and non-residential buildings, as well as stretch code requirements. Local governments can adopt or surpass the CALGreen stretch codes for EV-Capable or EV-Ready spaces, although it is not required.

CALGreen requires new construction of multi-unit dwellings to include EV-Capable infrastructure in at least 10 percent of parking spaces. The two-tiered reach codes enable cities to adopt requirements for EV-Capable infrastructure in 15 percent or 20 percent of multi-unit development

(MUD) parking spaces. CALGreen has also established requirements for new construction single-family residences, duplexes and townhouses with private garages. The residential provisions require EV-Capable capacity to support Level-2 charging station installations. CALGreen also requires new construction non-residential buildings to have 6 percent of parking spaces EV-Capable, with reach codes supporting 8 percent and 10 percent capacity.

Local governments have shown support of the CALGreen EV infrastructure building code requirements, with 20 jurisdictions exceeding the minimum code requirements in their local code adoptions. Some municipalities are also implementing parking ordinances to encourage the installation of EV charging stations, specifically for new construction. Some jurisdictions have gone even farther to explore adoption of EV infrastructure codes that address existing buildings including the City of Marin, City of Menlo Park, and the City and County of San Francisco. Such stretch codes target alterations and additions to provide opportunities for EV infrastructure installation in existing buildings.²

Denver, Colorado – City Level

Denver, Colorado amended the 2018 IECC and IRC to include the following EV charging infrastructure requirements to meet its goal of electrifying 30% of all vehicles by 2030:

One- and two-family dwellings: At least one EV-Ready parking space per dwelling unit.

Multi-family dwellings (3+ dwellings) with 10+ spaces: 5% of parking spaces to be EV-Installed, 15% EV-Ready Parking Spaces, and 75% EV-Capable Parking Spaces.

Commercial buildings (Groups A, B, E, I, M, S-2) with 10+ spaces: 5% of parking spaces to be EV-Installed, 10% EV-Ready Parking Spaces, and 10% EV-Capable Parking Spaces.

Building Alterations: ‘Level-3 Alterations’, where the work area exceeds 50 percent of the original building area or more than 10 parking spaces are substantially modified, are subject to the EV infrastructure requirements for both residential and commercial buildings.

DC Fast-charger provision: For MUD and Commercial buildings, allow developers to substitute up to five Level-2 charging spaces with one DC fast-charging space (minimum 20kW).³

Winter Park, Florida – City Level

The City of Winter Park adopted an EV-Readiness Ordinance that amends both its Land Development Code and Building Code. Winter Park amended Section 58-86 “Off-street Parking and Loading Regulations” of its Land Development Code to include EV charging station infrastructure and parking space requirements. Under this amendment, non-residential properties with surface parking or parking structures are required to have a minimum of 10 percent of total parking spaces to be Level-2 EV-Ready. The EV charging infrastructure is required to be installed in accordance with the technical amendment made to the Florida Building Code (Chapter 22,

² California Governor’s Office of Business and Economic Development, “[Electric Vehicle Charging Station Permitting Guidebook](#),” (First Edition: July 2019).

³ City of Denver Community Planning and Development, “[Code Amendment Proposal](#),” (2019).

Section 2703 of the City of Winter Park Code of Ordinances). The Land Development Code amendment also requires non-residential properties to provide, at minimum, 1 parking space equipped with a Level-2 EV charging station per every 20 required off-street parking spaces.

Vancouver, BC – International/City Level

The City of Vancouver adopted Building Code Bylaw 10908, which requires EV charging infrastructure installation in new construction residential and commercial buildings. Single-family dwellings with garages are required to have at least one EV-Ready parking space per dwelling unit. Multi-family dwellings are required to have 100 percent of parking spaces be EV-Ready, while commercial buildings must have 10 percent of parking spaces be EV-Ready.⁴

Although the code requires EV-Ready for 100 percent of parking spaces in MUDs, there is no requirement to install the electrical capacity to charge all spaces at full power. Vancouver's code requirements encourage the use of charging management technology to achieve a high level of plug-in electric vehicle readiness without the need for larger capacity upgrades.

Table 1: Sample EV-Integrated Code Provisions⁵

Municipality/State	Year	Process Type	Single-Family	Multi-Family	Commercial
Avon, CO	2021	Ordinance	1 EV-Ready Space per dwelling Unit	5% EV-Installed, 10% EV-Ready, 15% EV-Capable (7+ spaces)	5% EV-Installed, 10% EV-Ready, 15% EV-Capable (10+ spaces)
St. Louis, MO	2021	Ordinance	1 EV-Ready Space per dwelling Unit	2% EV-Installed, 5% EV-Ready (increases to 10% in 2025)	2% EV-Installed, 5% EV-Ready
Madison, WI	2021	Ordinance	-	2% EV-Installed, 10% EV-Ready (increases by 10% every 5 years)	1% EV-Installed (increases by 1% every 5 years), 10% EV-Ready (increases by 10% every 5 years)
Washington D.C.	2021	Legislation	-	20% EV-Ready (3+ spaces)	20% EV-Ready (3+ spaces)
Summit County, CO	2020	IBC / IRC	1 EV-Ready Space per dwelling Unit	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (10+ spaces)	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (25+ spaces)
Dillon, CO	2020	IBC / IRC	2 EV-Ready Space per dwelling Unit	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (10+ spaces)	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (25+ spaces)
Breckenridge, CO	2020	IBC / IRC	3 EV-Ready Space per dwelling Unit	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (10+ spaces)	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (25+ spaces)
Frisco, CO	2020	IBC / IRC	4 EV-Ready Space per dwelling Unit	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (10+ spaces)	5% EV-Installed, 10% EV-Ready, 40% EV-Capable (25+ spaces)
Salt Lake City, UT	2020	Ordinance	-	20% EV-Ready (5+ spaces)	-
City of Boulder, CO	2020	IBC / IRC	1 EV-Ready Space per dwelling Unit	5% EV-Installed, 15% EV-Ready, 40% EV-Capable (25+ spaces)	5% EV-Installed, 10% EV-Ready, 10% EV-Capable
Denver, CO	2020	IBC / IRC	1 EV-Ready Space per dwelling Unit	5% EV-Installed, 15% EV-Ready, 80% EV-Capable	5% EV-Installed, 10% EV-Ready, 10% EV-Capable

⁴ City of Vancouver Building Policy Branch, "[Electric Vehicle Charging of Buildings](#)," (2021).

⁵ Southwest Energy Efficiency Project, "[EV Infrastructure Building Codes: Adoption Toolkit](#)," (2020).

Municipality/State	Year	Process Type	Single-Family	Multi-Family	Commercial
Honolulu, HI	2020	Ordinance	1 EV-Capable Space per dwelling unit	25% EV-Ready (8+ spaces)	25% EV-Ready (12+ spaces)
Chicago, IL	2020	Ordinance		20% EV-Ready (5+ spaces)	20% EV-Ready (30+ spaces)
Lakewood, CO	2019	Zoning Ordinance	1 EV-Capable Space per dwelling unit	2% EV-Installed, 18% EV-Capable (10+ spaces)	2% EV-Installed, 13% - 18% EV-Capable (10+ spaces)
Flagstaff, AZ	2019	IBC / IRC	1 EV-Ready Space per dwelling Unit	3% EV-Ready	3% EV-Ready
Massachusetts	2019	-	-	-	1 EV-Ready space (15+ spaces)
Seattle, WA	2019	Ordinance	1 EV-Ready Space per dwelling Unit	100% EV-Ready up to 6 space, 20% for parking lots with 7+ spaces	10% EV-Ready
Sedona, AZ	2019	Appendix	1 EV-Capable Space per dwelling Unit	-	5% EV-Capable
Golden, CO	2019	Ordinance	-	1 EV-Installed Space per 15 parking space, 15% EV-Capable	
San Jose, CA	2019	Ordinance	1 EV-Ready Space per dwelling Unit	10% EV-Installed, 20% EV-Ready, 70% EV-Capable	10% EV-Installed, 40% EV-Capable
Fort Collins, CO	2019	IBC / IRC	1 EV-Capable Space per dwelling Unit	10% EV-Capable	-
Vancouver, BC	2019	IBC / IRC	1 EV-Ready Space per dwelling Unit	100% EV-Ready	10% EV-Ready
Oakland, CA	2018	IBC / IRC	-	10% EV-Ready, 90% "Raceway Installed", 20% total panel capacity	10% EV-Ready, 10% "Raceway Installed", 20% total panel capacity
Atlanta, GA	2017	Code of Ordinances	1 EV-Capable Space per dwelling Unit	20% EV-Capable	
Aspen, CO	2017	IBC / IRC	1 EV-Capable Space per dwelling Unit	3% EV-Capable (240V individual circuit branch with EV CAPABLE labelling)	-
San Francisco, CA	2017	IBC / IRC	1 EV-Ready Space per dwelling Unit	10% EV-Ready, Panel Capacity for 20%, Raceway for 100%	
Palo Alto, CA	2017	IBC / IRC	1 EV-Capable Space per dwelling Unit	1 EV-Ready Space per Unit, 20% EV-Capable for Guest Parking with 5% EV-Installed	20% EV-Capable, 5% EV-Installed
Oregon	2017	IBC / IRC	-	5% EV-Ready	
Boulder County, CO	2015	IBC / IRC	1 EV-Ready Space per dwelling Unit	2% EV-Ready (for new construction and 50% or 5,000 SF additions)	
Washington	2015	State Building Code	-	For Group B, Group R-1 hotel and motel only, Group R-2 occupancies: 5% of parking spaces shall be EV Capable. Size electrical room to serve 20% of spaces.	
New York City, NY	2013	IBC / IRC	-	20% EV-Capable	-
California (CALGreen)	2010	IBC / IRC	1 EV-Capable Space per dwelling Unit	10% EV-Capable	

Model Code Language

~~This resource provides recommended language based on the input of stakeholders including the U.S. Department of Energy, Pacific Northwest National Laboratory and others listed in the Appendix, the content of 2021 code change proposals, and the strategies implemented in jurisdictions that have already adopted such policies. Below is draft model code language that can~~

be used as a starting point for governments to adopt core EV infrastructure requirements into their building codes. These model requirements are intended to support consistency in approach and provide a degree of certainty for building owners, designers, contractors, manufacturers and building and fire safety professionals. As each jurisdiction is different, these provisions do not specify the number of spaces required for each building type or the EV parking space charging infrastructure strategies that should apply to each space—the jurisdiction should determine its requirements based on the example requirements discussed above and captured in Table 1 plus through community feedback.

BUILDING CODE AMENDMENTS FOR ELECTRIC VEHICLE CHARGING

Residential

Amend the International Energy Conservation Code Section R202 and/or International Residential Code Section N1101.6 to add the following definitions:

ELECTRIC VEHICLE. An automotive type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, *EVSE*, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded and equipment grounding conductors, and the Electric Vehicle connectors, attachment plugs and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the Electric Vehicle.

EV-CAPABLE SPACE. A dedicated parking space which is provided with electrical panel capacity and space to support a minimum 40-ampere, 208/240-volt branch circuit for each EV parking space, and the installation of raceways, both underground and surface mounted, to support the electric vehicle supply equipment.

EV-READY SPACE. A designated parking space which is provided with one 40-ampere, 208/240-volt dedicated branch circuit for electric vehicle supply equipment servicing Electric Vehicles. The circuit shall terminate in a suitable termination point such as a receptacle, junction box or electric vehicle supply equipment and be located in close proximity to the proposed location of the EV parking spaces.

Further amend the IECC and/or IRC by adding the following:

R401.4 (IRC N1101.15) Electric vehicle charging.

Where parking is provided, new construction shall provide EVSE installed spaces and facilitate future installation and use of EVSE through the provision of *EV-Ready Spaces* and *EV-Capable Spaces* provided in compliance with Sections R401.4.1 through R401.4.4 (IRC N1101.15.1 through IRC N1101.15.3). Where more than one parking facility is provided on a site, electric vehicle ready parking spaces shall be calculated separately for each parking facility. The service panel or subpanel circuit directory shall identify the spaces reserved to support EV charging as

“EV-Capable” or “EV-Ready”. The raceway location for *EV-Capable Spaces* shall be permanently and visibly marked as “EV-Capable”.

Exception: This section does not apply to parking spaces used exclusively for trucks or delivery vehicles.

R401.4.1 (IRC N1101.15.1) Electric vehicle service equipment (EVSE) ready circuit. Each *EV-Ready Space* shall be provided with a minimum 40-ampere branch circuit to accommodate a future dedicated Level 2 EVSE. The service panel shall provide sufficient capacity and space to accommodate the circuit and over current protective device. A permanent and visible label stating “EV-READY” shall be posted in a conspicuous place at both the service panel and the circuit termination point.

R401.4.2 (IRC N1101.15.2) New single family and two-family dwelling units. Single family and two-family dwelling units shall provide not less than [number] of [EVSE-Installed, *EV-Ready Spaces* and *EV-Capable Spaces*] per dwelling unit.

R401.4.3 New multifamily dwellings (three or more units). EVSE-Installed, *EV-Ready Spaces* and *EV-Capable Spaces* shall be provided in accordance with Table R401.4.3. *EV-Ready Spaces* that terminate with an installed Level 2 EVSE shall count as spaces under the *EV-Ready Space* requirements. Where the calculation of percent served results in a fractional parking space, it shall round up to the next whole number.

Exception: Where *EV-Ready Spaces* installed exceed the required values in Table R401.4.1 the additional spaces shall be deducted from the *EV-Capable Spaces* requirement.

Table R401.4.3

EVSE-INSTALLED, EV-READY AND EV-CAPABLE SPACE REQUIREMENTS

<u>Total Number of Parking Spaces</u>	<u>Minimum number of EVSE-Installed Spaces</u>	<u>Minimum number of EV-Ready Spaces</u>	<u>Minimum number of EV-Capable Spaces</u>
<u>1</u>			
<u>2–10</u>			
<u>11–15</u>			
<u>16–19</u>			
<u>21–25</u>			
<u>26+</u>			<u>—% of total parking spaces</u>

R401.4.4 (IRC N1101.15.3) Identification. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future *EVSE*, raceway methods, wiring schematics and electrical load calculations to verify that the

~~electrical panel service capacity and electrical system, including any on-site distribution transformers, have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE.~~

NOTES:

~~There are other important code references to examine in parallel to IECC/IRC Chapter 11 requirements. If not consistent with the latest editions, update:~~

- ~~• Section 625 of the National Electrical Code (NFPA 70)~~
- ~~• Section E3702.13 of the International Residential Code~~

~~See Section R328.10 of the International Residential Code and Section 1207.11.10 of the International Fire Code for provisions on the use of electric vehicles as energy storage systems.~~

Commercial

~~Amend the International Energy Conservation Code Section C202 to include the following definitions:~~

~~**ELECTRIC VEHICLE.** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, EVSE, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current.~~

~~**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** The conductors, including the ungrounded, grounded, and equipment grounding conductors, and the *Electric Vehicle* connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *Electric Vehicle*.~~

~~**EV-CAPABLE SPACE.** A dedicated parking space which is provided with electrical panel capacity and space to support a minimum 40-ampere, 208/240-volt branch circuit for each EV parking space, and the installation of raceways, both underground and surface mounted, to support the EVSE.~~

~~**EV-READY SPACE.** A designated parking space which is provided with one 40-ampere, 208/240-volt dedicated branch circuit for future dedicated Level 2 EVSE servicing *Electric Vehicles*. The circuit shall terminate in a suitable termination point such as a receptacle, junction box, or an EVSE, and be located in close proximity to the proposed location of the EV parking spaces. The circuit shall have no other outlets. The service panel shall include an over-current protective device and provide sufficient capacity and space to accommodate the circuit and over-current protective device and be located in close proximity to the proposed location of the EV parking spaces.~~

~~Further amend the IECC by adding the following sections:~~

~~**C401.4 Electric vehicle ready parking.** Where parking is provided, new construction shall provide EVSE-installed spaces and facilitate future installation and use of EVSE through the~~

~~provision of EV-Ready Spaces and EV-Capable Spaces provided in compliance with Sections C401.4.1 through C401.4.2, Where more than one parking facility is provided on a site, EV-Ready Spaces and EV-Capable Spaces shall be calculated separately for each parking facility.~~

~~**C401.4.1 New commercial and multifamily buildings.** EVSE installed spaces, EV-Ready Spaces and EV-Capable Spaces shall be provided in accordance with Table C401.4.1 for Commercial buildings and Table C401.4.2 for multifamily buildings. EV-Ready Spaces that terminate with an installed Level 2 EVSE shall count as spaces under the EV-Ready Space requirements. Where the calculation of percent served results in a fractional parking space, it shall be rounded up to the next whole number. The service panel or sub-panel circuit directory shall identify the spaces reserved to support EV charging as “EV-Capable” or “EV-Ready”. The raceway location shall be permanently and visibly marked as “EV-Capable”.~~

~~**Exception:** Where EV-Ready Spaces installed exceed the required values in Table C401.4.1 the additional spaces shall be deducted from the EV-Capable Spaces requirement.~~

TABLE C401.4.1

EVSE-INSTALLED, EV-READY SPACE AND EV-CAPABLE SPACE REQUIREMENTS FOR NEW COMMERCIAL BUILDINGS

<u>Total Number of Parking Spaces</u>	<u>Minimum number of EVSE-Installed Spaces</u>	<u>Minimum number of EV-Ready Spaces</u>	<u>Minimum number of EV-Capable Spaces</u>
<u>1</u>			
<u>2—10</u>			
<u>11—15</u>			
<u>16—19</u>			
<u>21—25</u>			
<u>26+</u>			<u>—% of total parking spaces</u>

Table C401.4.2

EVSE-INSTALLED, EV-READY AND EV-CAPABLE SPACE REQUIREMENTS FOR NEW MULTIFAMILY BUILDINGS

<u>Total Number of Parking Spaces</u>	<u>Minimum number of EVSE-Installed Spaces</u>	<u>Minimum number of EV-Ready Spaces</u>	<u>Minimum number of EV-Capable Spaces</u>
<u>1</u>			
<u>2—10</u>			
<u>11—15</u>			

<u>16–19</u>			
<u>21–25</u>			
<u>26+</u>			<u>—% of total parking spaces</u>

~~**C401.4 Identification.** Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EVSEs. Construction documents shall also provide information on amperage of future EVSE, raceway methods, wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformers, have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE.~~

NOTES:

Jurisdictions adopting EV provisions that have not adopted the 2021 IBC must also amend earlier versions of the International Building Code to renumber Section 1109.14 Fuel-dispensing Systems and add the following language into Chapter 11:

SECTION 1107

MOTOR VEHICLE-RELATED FACILITIES

~~**1107.1 General.** Electrical vehicle charging stations shall comply with Section 1107.2. Fuel-dispensing systems shall comply with Section 1107.3.~~

~~**1107.2 Electrical vehicle charging stations.** Electrical vehicle charging stations shall comply with Sections 1107.2.1 and 1107.2.2.~~

~~**Exception:** Electrical vehicle charging stations provided to serve Group R-2, R-3 and R-4 occupancies are not required to comply with this section.~~

~~**1107.2.1 Number of accessible vehicle spaces.** Not less than 5 percent of vehicle spaces on the site served by electrical vehicle charging systems, but not fewer than one for each type of electric vehicle charging system, shall be accessible.~~

~~**1107.2.2 Vehicle space size.** Accessible vehicle spaces shall comply with the requirements for a van accessible parking space that is 132 inches (3350 mm) minimum in width with an adjoining access aisle that is 60 inches (1525 mm) minimum in width.~~

~~**1107.3 1109.14 Fuel-dispensing systems.**~~

~~Fuel-dispensing systems shall be accessible.~~

~~There are other important code references to examine in parallel to IECC/IRC Chapter 11 requirements. If not consistent with the latest editions update:~~

- ~~• Section 625 of the National Electrical Code (NFPA 70)~~
- ~~• Section 406.2.7 of the IBC~~

STAFF DRAFT

Reference List

[Electric Vehicle Charging Station Permitting Guidebook – California Office of Business and Economic Development](#)

[EV Infrastructure Building Codes: Adoption Toolkit – Southwest Energy Efficiency Project \(SWEET\)](#)

[Final Code Amendment Proposal 2019 – City of Denver Community Planning & Development](#)
[Greenhouse Gas Emissions – U.S. EPA](#)

[IECC Commercial 2019 Group B Proposed Changes – International Code Council](#)

[Electric Vehicle Charging for Buildings – City of Vancouver Building Policy Branch](#)

[IECC Residential / IRC Energy 2019 Group B Proposed Changes – International Code Council](#)

[New Building Codes for Charging Electric Vehicles – Alliance to Save Energy \(ASE\)](#)

[2030 Greenhouse Gas Pollution Reduction Target \(Fact Sheet\) – U.S. White House](#)

APPENDIX

STAKEHOLDERS PROVIDING INPUT

The following stakeholders participated in a listening session in January 2021 or provided feedback on the staff draft. The content of this draft and subsequent drafts may not reflect the policies or positions of the individuals or organizations identified.

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