

**DOCKETED**

<b>Docket Number:</b>	19-BSTD-06
<b>Project Title:</b>	Local Ordinances Exceeding the 2019 Energy Code
<b>TN #:</b>	235593-2
<b>Document Title:</b>	East Palo Alto Ordinance No 07-2020
<b>Description:</b>	Plain text of East Palo Alto local ordinance no. 07-2020
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<b>Organization:</b>	East Palo Alto
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	11/13/2020 3:52:22 PM
<b>Docketed Date:</b>	11/13/2020

**ORDINANCE NO. 07 – 2020**

**AN ORDINANCE OF THE CITY COUNCIL  
OF THE CITY OF EAST PALO ALTO**

**AMENDING MUNICIPAL CODE CHAPTER 15.25 OF TITLE 15 (BUILDINGS AND  
CONSTRUCTION) OF THE EAST PALO ALTO MUNICIPAL CODE TO ADOPT A LOCAL  
“REACH” CODE AND ADOPTING FINDINGS JUSTIFYING THE AMENDMENTS TO THE  
2019 CALIFORNIA GREEN BUILDING CODE AND THE 2019 CALIFORNIA ENERGY CODE**

**WHEREAS**, the City of East Palo Alto ("City") wishes to adopt a building code in accordance with law and to use the most updated regulations in the processing of development in the City;

**WHEREAS**, California Health and Safety Code section 17958 requires that cities adopt building regulations that are substantially the same as those adopted by the California Building Standards Commission and contained in the California Building Standards;

**WHEREAS**, the California Energy Code is a part of the California Building Standards which implements minimum energy efficiency standards in buildings through mandatory requirements, prescriptive standards, and performances standards;

**WHEREAS**, California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5 provide that the City may make changes or modifications to the building standards contained in the California Building Standards based upon express findings that such changes or modifications are reasonably necessary because of local climatic, geological or topographical conditions;

**WHEREAS**, the City Council of the City of East Palo Alto finds that each of the amendments, additions and deletions to the California Energy Code contained in this ordinance are reasonably necessary because of local climatic, geological or topographical conditions described in Section 1;

**WHEREAS**, Public Resources Code Section 25402.1(h)2 and Section 10-106. of the Building Energy Efficiency Standards (Standards) establish a process which allows local adoption of energy standards that are more stringent than the statewide Standards, provided that such local standards are cost effective and the California Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by the California Energy Code;

**WHEREAS**, that such modifications will result in designs that consume less energy than they would under the 2019 State Energy Code through the California Codes and Standards Reach Code Program, has performed cost effectiveness analyses as required by the California Energy Commission for the local amendments to the California Energy Code contained in this ordinance which is hereby incorporated by reference;

**WHEREAS**, based upon these analyses, the City Council of the City of East Palo Alto finds that the local amendments to the California Energy Code contained in this ordinance are cost effective and will require buildings to be designed to consume no more energy than permitted by the California Energy Code;

**WHEREAS**, because of the City's unique local climatic, geologic and topographic conditions, the City desires to make amendments and additions to the code.



**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EAST PALO ALTO DOES ORDAIN AS FOLLOWS:**

**SECTION 1: FINDINGS AND DETERMINATIONS**

The following local climatic, conditions justify modifications to the California Building Standards Code:

- A. Climatic: The City is located in Climate Zones 3 and 4 as established in the 2019 California Energy Code. Climate Zones 3 and 4 incorporate mostly coastal communities from Marin County to southern Monterey County including San Francisco. The City experiences precipitation ranging from 13 to 20 inches per year with an average of approximately 15 inches per year. Ninety-five percent of precipitation falls during the months of November through April, leaving a dry period of approximately six months each year. Relative humidity remains moderate most of the time. Temperatures in the summer average around 80 degrees Fahrenheit and in the winter in the mid 50 degrees Fahrenheit. Prevailing winds in the area come from the west with velocities generally in the 12 miles per hour range, gusting from 25 to 35 miles per hour. These climatic conditions along with the greenhouse emissions generated from structures in both the residential and nonresidential sectors requires exceeding the energy standards for building construction established in the 2019 California Buildings Standards Code. The City Council also adopted a Climate Action Plan that has a goal of reducing greenhouse gas emissions. In order to achieve and maintain this goal, the City needs to adopt policies and regulations that reduce the use of fossil fuels that contribute to climate change, such as natural gas in buildings, in new development. Human activities, such as burning natural gas to heat buildings, releases greenhouse gases into the atmosphere and causes an overall increase in global average temperature. This causes sea levels to rise, affecting the City's shoreline and infrastructure.

Roughly 49% of the City remains in a regulatory flood inundation zone associated with the 100-year sea level rise FEMA maps adopted April, 2019. San Francisquito Creek also runs through the City, which creates an increasing potential flooding risk with climate change as a result of human generated greenhouse gas emissions. East Palo Alto is vulnerable to sea level rise where new development is proposed in this code cycle. New buildings that are directly vulnerable to sea level rise should avoid generating additional greenhouse gas emissions. The proposed Reach Code would ensure that new buildings use cleaner sources of energy that are greenhouse gas free.

Vehicular traffic through East Palo Alto is significant, and it continues to increase as East Palo Alto, and it's neighboring cities, become an employment center as well as the location of residential projects. Moreover, the observed increase in plug-in electric vehicle adoption reduces the climate impact of vehicular greenhouse gas emissions.

- B. Geologic: The City of East Palo Alto is subject to earthquake hazard caused by its proximity to San Andreas fault. This fault runs from Hollister, through the Santa Cruz Mountains, epicenter of the 1989 Loma Prieta earthquake, then on up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock. This is the approximate location of the epicenter of the 1906 San Francisco earthquake. The other fault is Hayward Fault. This fault is about 74 miles long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both of these faults are considered major Northern California earthquake faults which may experience rupture at any time. Thus, because the City is within a seismic area which includes these earthquake faults, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to



establish criteria for repair of damaged properties following a local emergency.

In the event of a natural disaster such as an earthquake or fire, the natural gas infrastructure in and around the City of East Palo Alto presents a risk to the life and safety of residents and first responders. Moreover, the electric grid system can be brought back online more swiftly than the natural gas pipeline when the community is recovering from such an event.

- C. Topographic: The City of East Palo Alto is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and waste water run-off. Also, the City is located in an area that is relatively high liquefaction potential given its proximity to the Bay. The surface condition consists mostly of stiff to dense sandy clay, which is highly plastic and expansive in nature. The aforementioned conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

## **SECTION 2: CHAPTER 15.25 OF THE EAST PALO ALTO MUNICIPAL CODE**

The City Council hereby amends the following section of Chapter 15.25 of the East Palo Alto Municipal Code to read as follows (with text in ~~strikeout~~ indicating deletion and underlined text indicating addition). Sections and subsections that are not amended by this Ordinance are not included below and shall remain in full force and effect.

### **SECTION 100.0 – Scope.**

(e) Sections applicable to particular buildings. TABLE 100.0-A and this subsection list the provisions of Part 6 that are applicable to different types of buildings covered by Section 100.0(a).

1. All buildings. Sections 100.0 through 110.12 apply to all buildings.  
EXCEPTION to Section 100.0(e) 1: Spaces or requirements not listed in TABLE 100.0-A.
2. Newly constructed buildings.
  - A. All newly constructed buildings. Sections 110.0 through 110.12 apply to all newly constructed buildings within the scope of Section 100.0(a). In addition, newly constructed buildings shall meet the requirements of Subsections B, C, D or E, as applicable; and shall be an All-Electric Building as defined in Section 100.1(b). For the purposes of All-Electric Building requirements, newly constructed buildings as defined in Section 100.1 shall include a construction project where an alteration includes replacement of over 50% of the existing foundation for purposes other than a repair or reinforcement as defined in California Existing Building Code Section 202; or when over 50% of the existing framing above the sill plate is removed or replaced for purposes other than repair. If either of these criteria are met within a 3-year period, measured from the date of the most recent previously obtained permit final date, that structure is considered new construction and shall be subject to the All-Electric Building requirements. The final determination whether a project meets the definition of substantial reconstruction/alteration shall be made by a designated building official.

Exception 1: Non-Residential Buildings containing a Scientific Laboratory Building, such area may contain a non-electric Space Conditioning System.

Exception 2: All-Electric **domestic water heating** requirements shall not apply to new residential structures that **have central water heating and** entirely consist of affordable



rental units, defined as units rented at an amount consistent with the maximum rent levels for a housing development that receives an allocation of state or federal low-income housing tax credits from the California Tax Credit Allocation Committee. Residential developments meeting the above definition must have an Inclusionary Housing Plan that is approved by the Housing Division pursuant to Section 18.37.090.

Exception 3: Exemption for public agency owned and operated emergency centers. To take advantage of this exception applicant shall provide third party verification that All-Electric space heating requirement is not cost effective and feasible.

Exception 4: Multifamily residential building projects that have been granted planning entitlements within two years or less, or have been approved , before the effective date of this ordinance are not required to install all-electric water heating systems. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with the pre-wiring provision of Note 1 below.

Exception 5: If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the Energy Code, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Code using commercially available technology and an approved calculation method, then the Building Official may grant a modification. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with the pre-wiring provision of Note 1 below.

Exception 6: Accessory Dwelling Units and Junior Accessory Dwelling Units shall be exempt from the all-electric building provisions of this section. For purposes of this exception, "Accessory Dwelling Unit" and "Junior Accessory Dwelling Unit" have the same definitions as set out in Government Code Sections 65852.2 and 65852.22, respectively.

Exception 7: Non-residential buildings containing a for-profit restaurant open to the public or an employee kitchen may apply to the Building Official for an exception to install gas-fueled cooking appliances. This request must be based on a business-related reason to cook with a flame that cannot be reasonably achieved with an electric fuel source. Examples include barbeque-themed restaurants and pizza ovens. The Building Official may grant this exception if they find the following:

1. There is a business-related reason to cook with a flame;
2. This need cannot be reasonably achieved with an electric fuel source;
3. The applicant has employed reasonable methods to mitigate the greenhouse gas impacts of the gas-fueled appliance;
4. The applicant shall comply with the pre-wiring provision of Note 1 below.

The Building Official's decision shall be final unless the applicant appeals to the City Council within 15 days of the appointed body's decision. The City Council's decision on the appeal shall be final.

Exception 8: When improvements to existing buildings contain physical constraints that prevent conformance to the All-Electric Building requirements, the applicant may request an exception. In applying for an exception, the burden is on the applicant to identify the size requirements to comply with an All-Electric Building.



Note 1: If natural gas appliances are used in any of the above exceptions 1-8, natural gas appliance locations must also be electrically pre-wired for future electric appliance installation. They shall include the following:

1. A dedicated circuit, phased appropriately, for each appliance, with a minimum amperage requirement for a comparable electric appliance (see manufacturer's recommendations) with an electrical receptacle or junction box that is connected to the electric panel with conductors of adequate capacity, extending to within 3 feet of the appliance and accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors;
2. Both ends of the conductor or conduit shall be labeled with the words "For Future Electric appliance" and be electrically isolated;
3. A circuit breaker shall be installed in the electrical panel for the branch circuit and labeled, an example is as follows (i.e "For Future Electric Range;") and
4. All electrical components, including conductors, receptacles, junction boxes, or blank covers, related to this section shall be installed in accordance with the California Electrical Code.

Note 2: If any of the exceptions 1-8 are granted, the Building Official shall have the authority to approve alternative materials, designs and methods of construction per CBC 104,

Section 100.1(b) is modified by adding the following definitions:

ALL ELECTRIC BUILDING: is a building that has no natural gas or propane plumbing installed within the building, and that uses electricity as the source of energy for its space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances. All Electric Buildings may include solar thermal pool heating.

Scientific Laboratory Building: is a building or area where research, experiments, and measurement in medical, and life sciences are performed and/or stored requiring examination of fine details. The building may include workbenches, countertops, scientific instruments, and supporting offices.

Section 110.2 is modified as follows:

**SECTION 110.2 – MANDATORY REQUIREMENTS FOR SPACE-CONDITIONING EQUIPMENT**  
Certification by Manufacturers. Any space-conditioning equipment listed in this section, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements of this section.

Section 110.3 is modified as follows:

**SECTION 110.3 – MANDATORY REQUIREMENTS FOR SERVICE WATER-HEATING SYSTEMS AND EQUIPMENT**

(a) Certification by manufacturers. Any service water-heating system or equipment, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified that the system or equipment complies with all of the requirements of this subsection for that system or equipment.



Section 110.4 is modified as follows:

**SECTION 110.4 – MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT**

(a) Certification by Manufacturers. Any pool or spa heating system or equipment, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified that the system or equipment has all of the following:

Section 110.5 is modified as follows:

**SECTION 110.5 – NATURAL GAS CENTRAL FURNACES, COOKING EQUIPMENT, POOL AND SPA HEATERS, AND FIREPLACES: PILOT LIGHTS PROHIBITED**

Any natural gas system or equipment, meeting the requirements of Section 100.0 (e)2A, listed below may be installed only if it does not have a continuously burning pilot light:

SECTION 140.0(b) is modified as follows:

(b) The requirements of Sections 120.0 through 130.5 (mandatory measures for nonresidential, high-rise residential and hotel/motel buildings), and for all newly constructed buildings:

1. The entire solar zone, as specified in Section 110.10, shall have a solar photovoltaic system installed.

**Exception 1 to 140.0(b)1:** The building official may grant a modification if the applicant demonstrates that the required percentage of PV installation will over-generate the annual kWh required to operate the proposed building;

**Exception 2 to 140.0(b)1:** If the applicant demonstrates that conditions exist where excessive shading occurs, a performance equivalency approved by the Building Official may be used as an alternative.

**Exception 3 to 140.0(b)1:** Vegetative roofs covering 35 percent of the roof area or greater, meeting all relevant code requirements including considerations for wind, fire, and structural loads.

**SECTION 3: CHAPTER 15.11 OF THE EAST PALO ALTO MUNICIPAL CODE**

The City Council hereby amends the following section of Chapter 15.11 of the East Palo Alto Municipal Code to read as follows (with text in ~~strikeout~~ indicating deletion and underlined text indicating addition). Sections and subsections that are not amended by this Ordinance are not included below, and shall remain in full force and effect.

**SECTION 2  
DEFINITIONS**

**EV Capable:** A parking space linked to a listed electrical panel with sufficient capacity to provide at least 110/120 volts and 20 amperes to the parking space. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least 1" in diameter and may be sized for multiple circuits as allowed by the California Electrical Code. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as "EV CAPABLE." Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways.



**Level 1 EV Ready Space:** A parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either;

- a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space;
- or,
- b) electric vehicle supply equipment (EVSE).

**Level 2 EV Ready Space:** A parking space served by a complete electric circuit with 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1" diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either;

- a) a receptacle labelled "Electric Vehicle Outlet" with at least a ½" font adjacent to the parking space;
- or,
- b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

**Electric Vehicle Charging Station (EVCS):** A parking space that includes installation of electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes connected to a Level 2 EV Ready Circuit. EVCS installation may be used to satisfy a Level 2 EV Ready Circuit requirement.

**Automatic Load Management Systems (ALMS):** (ALMS) A control system which allows multiple Level 2 EV chargers to share a circuit or panel and automatically reduce power at each charger, providing the opportunity to reduce electrical infrastructure costs and/or provide demand response capability. ALMS is only allowed for Level 2 EVCS, Level 2 EV Ready, and Level 1 EV Ready Circuits. ALMS systems must be designed to deliver at least 1.4kW per charger. The connected amperage on-site shall not be lower than the required connected amperage per Part 11, 2019 California Green Building Code for the relevant building types.

## SECTION 4. RESIDENTIAL MANDATORY MEASURES

**4.106.4 Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

**Exceptions:**

1. On a case by case basis, where the local enforcing agency has determined EV charging and infra-structure are not feasible based upon one or more of the following conditions:
  - 1.1. Where there is evidence substantiating that meeting the requirements will alter the local utility infra-structure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than \$400.00 per dwelling unit.
1. Where there is no commercial power supply.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.
3. Spaces accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.
4. Multifamily residential building projects that have been granted entitlements within two years or less before the effective date of this ordinance shall provide at least ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, with Level 2 EV Ready



Circuits. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

5. East Palo Alto may consider allowing exceptions through their local process, on a case by case basis, if a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among parking spaces with Level 2 EV Ready Circuits and Level 1 EV Ready Circuits. If costs are found to exceed this level, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.
6. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost by more than \$400 per dwelling unit for residential buildings that entirely consist of either affordable rental units, defined as units rented at an amount consistent with the maximum rent levels for a housing development that receives an allocation of state or federal low-income housing tax credits from the California Tax Credit Allocation Committee. Residential developments meeting the above definition must have an Inclusionary Housing Plan that is approved by the Housing Division pursuant to Section 18.37.090. If costs are found to exceed this level, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.

#### **4.106.4.1 New one- and two-family dwellings and town- houses with attached private garages.**

~~For each dwelling unit, install a Level 2 EV Ready Circuit and Level 1 EV Ready Circuit. listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.~~

**Exception:** For each dwelling unit with only one parking space, install a Level 2 EV Ready Circuit.

**4.106.4.1.1 Identification.** ~~The service panel or sub-panel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "Level 2 EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE". "Level 2 EV-Ready".~~

**4.106.4.2 New multifamily dwellings.** ~~If residential parking is available, ten (10) percent in total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number. The following requirements apply to all new multifamily dwellings:~~

1. For multifamily buildings with less than or equal to 20 dwelling units, each dwelling unit with parking shall be provided with access to a parking space with a Level 2 EV Ready Circuit.
2. When more than 20 multifamily dwelling units are constructed on a building site
  - a. 10% of the dwelling units with parking space(s) shall be provided with access to at least one Level 2 EV Ready Circuit. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number.



- b. In addition, each remaining dwelling unit with parking space(s) shall be provided with access to at least a Level 1 EV Ready Circuit.

**Notes:**

- ~~1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.~~
- ~~2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.~~
1. ALMS may be installed to decrease electrical service and transformer costs associated with EV Charging Equipment subject to review of the East Palo Alto Planning and Building Divisions.
2. Installation of Level 2 EV Ready Circuits above the minimum number required level may offset the minimum number Level 1 EV Ready Circuits required on a 1:1 basis.
3. The requirements apply to multifamily buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.
4. In order to adhere to accessibility requirements in accordance with California Building Code Chapters 11A and/or 11B, it is recommended that all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 1 or Level 2 EV Ready Circuits.

**4.106.4.2.1.1 Electric vehicle charging stations (EVCS).** When EV chargers are installed, EV spaces required by Section 4.106.4.2.2, Item 3, shall comply with at least one of the following options:

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
2. The EV space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

**Exception:** Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

**Note:** Electric vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11 B.

**4.106.4.2.2 Electric vehicle charging space (EV space) dimensions.** Refer to East Palo Alto Development Code for parking dimension requirements. ~~The EV spaces shall be designed to comply with the following:~~

~~The EV spaces shall be designed to comply with the following:~~

- ~~1. The minimum length of each EV space shall be 18 feet (5486 mm).~~
- ~~2. The minimum width of each EV space shall be 9 feet (2743 mm).~~
- ~~3. One in every 25 EV spaces, but not less than one, shall also have an 8 foot (2438 mm) wide minimum aisle. A 5 foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).~~
  - ~~1. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.~~

**4.106.4.2.3**

**Single EV space required.** Install a listed raceway capable of accommodating a 208/240-



volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV spaces. Construction documents shall identify the raceway termination point. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit over-current protective device.

**4.106.4.2.4 — Multiple EV spaces required.** Construction 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 method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

**4.106.4.2.5 — Identification.** The service panel or sub-panel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

## SECTION 5 NONRESIDENTIAL MANDATORY MEASURES

**5.106.5.3 Electric vehicle (EV) charging.** [N] New construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation and use of EV chargers of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the *California Electrical Code* and as follows:

**Exception:**

1. Where there is no commercial power supply.
2. Spaces accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.

**5.106.5.3.1 Office buildings:** In nonresidential new construction buildings designated primarily for office use with parking:

1. When 10 or more parking spaces are constructed, 10% of the available parking spaces on site shall be equipped with Level 2 EVCS;
2. An additional 10% shall be provided with at least Level 1 EV Ready Circuits; and
3. An additional 30% shall be at least EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS, Level 1 EV Ready spaces and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1" and sufficient for installation of EVCS at all required Level 1 EV Ready and EV Capable spaces; Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers, and have sufficient capacity



to simultaneously charge EVs at all required EV spaces including Level 1 EV Ready and EV Capable spaces; and service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

**Notes:**

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

**5.106.5.3.2 Other nonresidential buildings:** In nonresidential new construction buildings that are not designated primarily for office use, such as retail or institutional uses:

1. When 10 or more parking spaces are constructed, 6% of the available parking spaces on site shall be equipped with Level 2 EVCS;
2. An additional 5% shall be at least Level 1 EV Ready.  
Calculations for the required minimum number of spaces equipped with Level 2 EVCS and Level 1 EV Ready spaces shall be rounded up to the nearest whole number

**Exception:** Installation of each Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 6 Level 2 EVCS and 5 EV Ready spaces after a minimum of 6 Level 2 EVCS and 5 Level 1 EV Ready spaces are installed.

**5.106.5.3.3 Clean Air Vehicle Parking Designation.** EVCS qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

**Notes:**

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. [www.dot.ca.gov/hq/traffops/policy/13-01.pdf](http://www.dot.ca.gov/hq/traffops/policy/13-01.pdf).
2. See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
3. The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. [www.opr.ca.gov/docs/ZEV\\_Guidebook.pdf](http://www.opr.ca.gov/docs/ZEV_Guidebook.pdf).
4. Section 11B-812 of the 2019 California Building Code requires that a facility providing EVCS for public and common use also provide one or more accessible EVCS as specified in Table 11B-228.3.2.1. Chapter 11B applies to certain facilities including, but not limited to, public accommodations and publicly funded housing (see section 1.9 of Part 2 of the California Building Code). Section 11B-812 requires that "Parking spaces, access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2489 mm) minimum." It also requires that parking spaces and access aisles meet maximum slope requirements of 1 unit vertical in 48 units horizontal (2 percent slope) in any direction at the time of new building construction or renovation. Section 11B-812.5 contains accessible route requirements.



5. It is encouraged that shared parking, EV Ready are designated as "EV preferred."

~~**5.106.5.3.1 Single charging space requirements.** [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:~~

- ~~1. The type and location of the EVSE.~~
- ~~2. A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.~~
- ~~3. The raceway shall not be less than trade size 1."~~
- ~~4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.~~
- ~~5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.~~

~~**5.106.5.3.2 Multiple charging space requirements.**~~

~~When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:~~

- ~~1. The type and location of the EVSE.~~
- ~~2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.~~
- ~~3. Plan design shall be based upon 40-ampere minimum branch circuits.~~
- ~~4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution~~
- ~~5. transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.~~
- ~~6. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.~~

~~**5.106.5.3.3 EV charging space calculation.** [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.~~

~~Exceptions: On a case by case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:~~

- ~~1. Where there is insufficient electrical supply~~
- ~~2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.~~



~~TABLE 5.106.5.3.3~~

<del>TOTAL NUMBER OF ACTUAL PARKING SPACES</del>	<del>NUMBER OF REQUIRED EV CHARGING SPACES</del>
<del>0-9</del>	<del>0</del>
<del>10-25</del>	<del>1</del>
<del>26-50</del>	<del>2</del>
<del>51-75</del>	<del>4</del>
<del>76-100</del>	<del>5</del>
<del>101-150</del>	<del>7</del>
<del>151-200</del>	<del>10</del>
<del>201 and over</del>	<del>6 percent of total<sup>1</sup></del>

~~1. Calculation for spaces shall be rounded up to the nearest whole number.~~

**5.106.5.3.4 [N] Identification.** ~~The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE Ready".~~

**5.106.5.3.5 [N]** ~~Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.~~

### **SECTION 3: EXEMPTION FROM CEQA**

The City Council finds, pursuant to Title 14 of the California Administrative Code, Section 15061(b)(3) that this Ordinance is exempt from the requirements of the California Environmental Quality Act ("CEQA") on the grounds that these standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse impacts and there is no possibility that the activity in question may have a significant effect on the environment.

### **SECTION 4: SEVERABILITY**

If any part of this Ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the applicability of this Ordinance to other situations.

### **SECTION 5: EFFECTIVE DATE**

This Ordinance shall become effective following approval by the California Energy Commission, but in no event before January 1, 2021.

### **SECTION 6: POSTING**

Within fifteen (15) days of its adoption, the Ordinance shall be posted in three (3) public places within the City of East Palo Alto, and the Ordinance, or a summary of the Ordinance prepared by the City Attorney, shall be published in a local newspaper used to publish official notices for the City of East Palo Alto prior to the effective date.

INTRODUCED on the 6<sup>th</sup> of October 2020.



**PASSED AND ADOPTED** as an ordinance of the City of East Palo Alto at a regular meeting of said City Council on the 21<sup>st</sup> of October 2020, by the following vote:

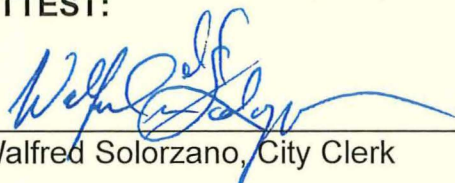
**AYES:** Gauthier, Moody, Romero, and Wallace-Jones

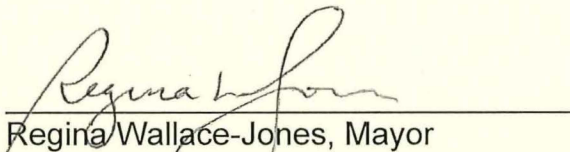
**NOES:**

**ABSENT:** Abrica

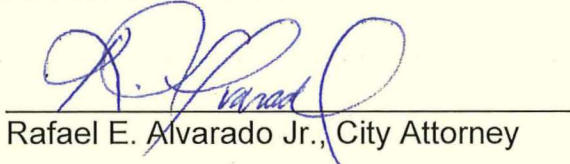
**ABSTAIN:**

**ATTEST:**

  
Walfred Solorzano, City Clerk

  
Regina Wallace-Jones, Mayor

**APPROVED AS TO FORM:**

  
Rafael E. Alvarado Jr., City Attorney