

ORDINANCE NO. NS-1100.118

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA CLARA AMENDING CHAPTER III OF DIVISION C3 OF THE COUNTY OF SANTA CLARA ORDINANCE CODE TO ADOPT LOCAL AMENDMENTS TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE AND RELATED FINDINGS FOR PLUG-IN ELECTRIC VEHICLE CHARGING STATIONS

Summary

This ordinance amends Chapter 3 of Division C3 of the County of Santa Clara Ordinance Code to require pre-wiring of the installation of plug-in electric vehicle charging systems for new buildings and rebuilds in unincorporated Santa Clara County

WHEREAS, Health and Safety Code section 18938 provides that the California Building Standards Commission (“Commission”) shall adopt building standards applicable to all occupancies in the State of California. The building standards consist of certain model building codes published by specified code-writing bodies, as amended to address California-specific issues. When adopted, these building standards constitute the California Building Standards code;

WHEREAS, pursuant to Health and Safety Code section 17958.7 and 18941.5, counties and cities may modify the State building standards where reasonably necessary because of local climatic, geological or topographical conditions;

WHEREAS, on May 21, 2013, the Board of Supervisors made a referral to the Planning and Development Department requesting that the County update building codes to require that all new construction and rebuilds of existing construction be installed with pre-wiring necessary to install plug-in electric vehicle (PEV) chargers;

WHEREAS, California’s Green Building Standards Code provides guidance on voluntary measures the County can adopt to promote PEV chargers and these voluntary measures can become mandatory if adopted by the County, and the County may also amend these measures to address local climatic, geological, or topographical conditions;

WHEREAS, on December 10, 2013, the Board of Supervisors approved Ordinance No. NS-1100-117 adopting and amending fire, building, residential building, green building standards, electrical, mechanical and plumbing codes to reflect the new building standards that become effective in all cities and counties throughout the state on January 1, 2014; and

Ordinance No. NS-1100-118
Adopting Local Amendments
To the California Green Building
Standards Code for Electric Vehicle
Charging

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WHEREAS, because of the public outreach conducted by the County on PEV installation requirements and the time needed to develop a PEV ordinance that accommodates the local climatic, geological and topographical conditions of unincorporated Santa Clara County, the PEV measures were not included in Ordinance No. NS-1100-117.

THE BOARD OF SUPERVISORS HEREBY FINDS that the amendments to the California Green Building Standards Code adopted below are reasonably necessary to address local, climatic, geological, and topographical conditions. The basis for these findings is set forth in Exhibit A, attached hereto and incorporated herein.

THE BOARD OF SUPERVISORS OF THE COUNTY OF SANTA CLARA ORDAINS AS FOLLOWS:

SECTION 1. Title C, Division C3, Chapter III, Article 2 is hereby amended to add a new Section C3-40 to read as follows:

Sec. C3-40. Electric Vehicle (EV) Charging for Residential Structures.

Section A4.106.8 of the California Green Building Standards Code is added and amended to read:

A4.106.8 Electric vehicle (EV) charging. Dwellings shall comply with the following requirements for the future installation of electric vehicle supply equipment (EVSE). All installations shall comply with the 2013 California Electrical Code as adopted and amended by the County of Santa Clara.

A4.106.8.1 One-and two-family dwellings. For new dwellings and the rebuild of existing dwellings that include a panel upgrade or construction between the panel and parking area, install one 208/240V, 40 amp grounded AC outlet, for each dwelling unit, or provide panel capacity and conduit for the future installation of a 208/240V 40 amp, grounded AC outlet, for each dwelling unit. The conduit shall not be less than trade size 1 (nominal 1-inch inside diameter), securely fastened at the main service or subpanel and shall terminate in the parking area into a listed cabinet, box or enclosure. The conduit is required to be continuous at enclosed or concealed areas and spaces.

Exception: Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 EVSE.

Note: Utilities and local enforcing agencies may have additional requirements for metering and EVSE installation, and should be consulted during the project design and installation.

A4.106.8.1.1 Labeling requirement. A label stating “EV CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

A4.106.8.2 Multifamily dwellings. For new dwellings, at least 3 percent of the total parking spaces, but not less than one parking space, shall be capable of supporting future electric vehicle supply equipment (EVSE). The percentage calculated shall be rounded up to the next whole number.

A4.106.8.2.1 Single charging space required. When only a single charging space is required, install one 208/240 V, 40 amp grounded AC outlet, or provide panel capacity and conduit for the future installation of a 208/240 V, 40 amp grounded AC outlet. The conduit shall not be less than trade size 1 (nominal 1-inch inside diameter), be securely fastened at the main service or subpanel and shall terminate in the parking area into a listed cabinet, box or enclosure.

Exception: Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 EVSE.

A4.106.8.2.2 Multiple charging spaces required. When multiple charging spaces are required, plans shall include the location(s) and type of the EVSE, raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all the electrical vehicles at all designated EV charging spaces at their full rated amperage. Plan design shall be based upon Level 2 EVSE electrical current demands of not less than 125% of the maximum load of the electric vehicle supply equipment. Only underground conduits or raceways and related underground equipment are required to be installed at the time of construction.

Note: Utilities and local enforcing agencies may have additional requirements for metering and EVSE installation, and should be consulted during the project design and installation.

A4.106.8.2.3 Labeling requirement. A label stating “EV CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and the EV charging space.

A4.106.8.3 Panel Capacity. Panel Capacity is the amount of available current in amperes provided from the utility or verified power supply for off-grid applications. Where an automatic load management system is used, the maximum electric vehicle supply equipment load on panel capacity shall be the maximum load permitted by the automatic load management system. Where a manual or automatic load shift system is used only non-essential loads shall be permitted to be removed from the utility supply and the minimum utility supply shall comply with the minimum size and rating requirements of the California Electrical Code.

A4.106.8.4 Multifamily dwellings with more than 100 new parking spaces. In addition to requirements in 4.106.8.2.2, install Level 2 (or higher) EVSE to service one (1) percent of the total number of parking spaces. The percentage calculated shall be rounded up to the next whole number. The EVSE shall be located within the parking area.

A4.106.8.5 Shared Parking. When parking is provided to new buildings from shared parking lots, including existing and new parking lots, the requirements of this section may be met through the installation of pre-wiring and / or EVSE among both the existing and new parking lots. Pre-wiring or EVSE previously installed in shared parking lots servicing new buildings may also meet the requirements of this section. If a new building does not require the installation of new parking spaces, as approved by the County, the requirements to install pre-wiring or EVSE in parking areas does not apply.

SECTION 2. Title C, Division C3, Chapter III, Article 2 is hereby amended to add a new Section C3-41 to read as follows:

Sec. C3-41. Electric Vehicle (EV) Charging for Nonresidential Structures.

Section A5.106.5.3 of the California Green Building Standards Code is added and amended to read:

A5.106.5.3 Electric vehicle charging. At least 5 percent of the total parking spaces, but not less than one parking space, shall be capable of supporting future electric vehicle supply equipment (EVSE). The percentage calculated shall be rounded up to the next whole number. All installations shall comply with the 2013 California Electrical Code as adopted and amended by the County of Santa Clara.

A5.106.5.3.1 Single charging space required. When only a single charging space is required, install one 208/240 V, 40 amp grounded AC outlet, or provide panel capacity and conduit for the future installation of a 208/240 V, 40 amp grounded AC outlet. The conduit shall not be less than trade size 1 (nominal 1-inch inside diameter), securely fastened at the main service or subpanel and shall terminate in the parking area into a listed cabinet, box or enclosure.

Exception: Other pre-installation methods approved by the local enforcing agency that provide sufficient conductor sizing and service capacity to install Level 2 EVSE.

A5.106.5.3.2 Multiple charging spaces required. When multiple charging spaces are required, plans shall include the location(s) and type of the EVSE, raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all the electrical vehicles at all designated EV charging spaces at their full rated amperage. Plan design shall be based upon Level 2 EVSE electrical current demands of not less than 125% of the maximum load of the electric vehicle supply equipment. Only underground conduits or raceways and related underground equipment are required to be installed at the time of construction.

Note: Utilities and local enforcing agencies may have additional requirements for metering and EVSE installation, and should be consulted during the project design and installation.

A5.106.5.3.3 Labeling requirement. A label stating “EV CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and the EV charging space.

A5.106.5.3.4 Buildings with more than 100 new parking spaces. Install Level 2 (or higher) EVSE to service one (1) percent of the total number of parking spaces. The percentage calculated shall be rounded up to the next whole number. The EVSE shall be located within the parking area.

A5.106.5.3.5 Shared Parking. When parking is provided to new buildings from shared parking lots, including existing and new parking lots, the requirements of this section may be met through

the installation of pre-wiring and / or EVSE among both the existing and new parking lots. Pre-wiring or EVSE previously installed in shared parking lots servicing new buildings may also meet the requirements of this section. If a new building does not require the installation of new parking spaces, as approved by the County, the requirements to install pre-wiring or EVSE in parking areas does not apply.

SECTION 3. Title C, Division C3, Chapter III, Article 2 is hereby amended to add a new Section C3-42 to read as follows:

Sec. C3-42. Alternative Means for Electric Vehicle (EV) Charging for Residential and Nonresidential Structures.

The provisions of Sections C3-40 and C3-41 are not intended to prevent the use of any alternative means of achieving the standards for electric vehicle charging, provided that any such alternative is approved by the Building Official based on a finding that the proposed alternative is satisfactory and complies with the intent of the provisions and is at least as equivalent as the prescribed requirements.

SECTION 4. This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by a court to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof, other than the section so declared to be unconstitutional or invalid.

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PASSED AND ADOPTED by the Board of Supervisors of the County of Santa Clara, State of California on _____ by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:


Mike Wasserman, President
Board of Supervisors

Signed and certified that a copy of this document has been delivered by electronic or other means to the President of the Board of Supervisors

ATTEST:

Lynn Regadanz, Clerk of the Board

APPROVED AS TO FORM:



Elizabeth G. Pianca, Deputy County Counsel

12/13/2013

Attachment:

Exhibit A—Local Amendments to 2013 California Green Building Standards Code

Ordinance No. NS-1100-118
Adopting Local Amendments
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