



ORDINANCE NO. 28640

1 AN ORDINANCE relating to the Building Code; amending Chapter 2.02 of the
2 Tacoma Municipal Code by the addition of a new Section 2.02.136, to be
3 known as “Amendment to IBC Chapter 4 – by deletion and replacement of
4 the WA State amendment Section 427 – Electric Vehicle Charging
5 Infrastructure,” to incorporate new provisions that merge City Land Use
6 and Building Codes related to electric vehicle charging infrastructure and
7 readiness, and coincide with Washington State’s adoption of changes to
8 state building codes.

9 WHEREAS the transportation sector accounts for 71 percent of the
10 greenhouse gas emissions in the City, and

11 WHEREAS, as of October 2019, 1,400 electric vehicles (“EVs”) were
12 registered in Tacoma, and

13 WHEREAS it is predicted that EVs will account for 14 percent of the U.S.
14 market by 2025, and access to convenient charging is critical for supporting this
15 growth locally, especially at commercial and multifamily locations, and

16 WHEREAS the Washington State Legislature has passed legislation to
17 increase existing EV requirements which must be adopted by the state into building
18 codes by July 1, 2021, and

19 WHEREAS, currently, Tacoma Municipal Code (“TMC”) requirements for
20 EV charging are enforced through both the City’s Land Use Code and Building
21 Code, and

22 WHEREAS the City’s Building Code requirements, which come from state
23 Building Code Council amendments to the International Building Code, apply only to
24 new construction buildings, and

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1 WHEREAS the City's Land Use Code provisions, adopted in 2016, apply to
2 both new construction and substantial remodels, and

3 WHEREAS staff from the Environmental Services ("ES") and Planning and
4 Development Services ("PDS") Departments have identified Building Code
5 amendments relating to EV charging that could increase the effectiveness of
6 TMC Chapter 2.02, and

7 WHEREAS the proposed amendments include (1) incorporating Land Use
8 Code related to EV infrastructure into the Building Code; (2) applying provisions of
9 EV charging infrastructure to the construction of new buildings, and building
10 additions that require 10 or more new or additional parking spaces; (3) expanding
11 EV readiness requirements from 5 percent of parking spaces to 10 percent of
12 parking spaces for all occupancy group/use classifications, except for Group R-2
13 Multi-family, which will expand from 5 percent to 20 percent; and (4) requiring
14 identification of EV dedicated circuits in the service panel or subpanel directory for
15 both installed and future infrastructure, and
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18 WHEREAS the proposed amendments were presented to the Board of
19 Building Appeals on October 29, 2019, and received its recommendation for
20 approval; and were presented to the Infrastructure, Planning, and Sustainability
21 Committee on November 6, 2019, and received its recommendation to forward the
22 proposed amendments to the full City Council for consideration; Now, Therefore,
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24 BE IT ORDAINED BY THE CITY OF TACOMA:

25 That Chapter 2.02 of the Tacoma Municipal Code, Building Code, is hereby
26 amended by the addition of a new Section 2.02.136, to be known as "Amendment



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to IBC Chapter 4 – by deletion and replacement of the WA State amendment
Section 427 – Electric Vehicle Charging Infrastructure,” to read as set forth in the
attached Exhibit “A.”

Passed _____

Mayor

Attest:

City Clerk

Approved as to form:

Deputy City Attorney



EXHIBIT "A"

**CHAPTER 2.02
BUILDING CODE**

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Sections:

- 2.02.010 Adoption of International Building Code, International Residential Code, and International Existing Building Code.
- 2.02.020 Purpose.
- 2.02.030 International Plumbing Code.
- 2.02.040 *Repealed.*
- 2.02.050 *Repealed.*
- 2.02.060 *Repealed.*
- 2.02.070 *Repealed.*
- 2.02.080 Amendment to IBC Section 105.1 – Permits by addition of a new Section 105.1.3 – Business Licensing.
- 2.02.090 Amendment to IBC Section 105.2 – Work exempt from permit.
- 2.02.100 Amendment to IBC Section 202 – Definitions – D, L, S, T, and W.
- 2.02.110 Amendment to IBC Section 111.2 – Certificate issued.
- 2.02.120 Amendment to IBC Section 113 – Board of Appeals.
- 2.02.130 Amendment to IBC Section 114 – Violations.
- 2.02.135 Amendment to IBC Section 419 – Live/Work units.
- 2.02.136 Amendment to IBC Chapter 4 – by deletion and replacement of the WA State amendment Section 427 – Electric Vehicle Charging Infrastructure.

* * *

2.02.136 Amendment to IBC Chapter 4 – by deletion and replacement of the WA State amendment Section 427 – Electric Vehicle Charging Infrastructure.

427.1 Scope. The provisions of this section shall apply to the construction of new buildings, and building additions that require 10 or more new or additional parking spaces in accordance with Tacoma Municipal Code (“TMC”) Title 13.

427.2 Required electric vehicle charging stations and infrastructure. -Where parking is provided, Table 1 identifies the thresholds that will trigger electric vehicle spaces served by charging stations and/or charging station infrastructure. Table 1 also provides the percentage of parking spaces to be served by an electric vehicle charging station and the percentage of spaces to be provided with electric vehicle charging infrastructure according to the occupancy group and use of the building served. New or additional parking shall comply with Sections 427.3, 427.4, 427.5, and 427.6. When the calculation of percent served results in a fractional parking space, the applicant shall round up to the next whole number.

Where parking spaces serve buildings with multiple occupancies or uses, or serve multiple buildings with different occupancies or uses, the applicant shall use the occupancy or use that provides the greatest number of electric vehicle spaces with charging stations and/or infrastructure in accordance with Table 1.



Table 1: Required Electric Vehicle Parking Quantities

| <u>Occupancy Group and Use</u> | <u>Thresholds applied for electric vehicle stalls served by stations and infrastructure</u> | <u>Parking spaces to be served by an installed electric vehicle charging station</u> | <u>Parking spaces served by electric vehicle charging infrastructure only</u> |
|---|--|--|---|
| <u>Group R-1 - Hotel/Motel Only</u> | <u>Applies to all.</u> | <u>3% of new parking provided</u> | <u>7% raceway AND 20% electrical room capacity</u> |
| <u>Group R-2 Multi-family</u> | <u>Where 10 or more parking spaces, and/or 10 or more dwelling or sleeping units are provided.</u> | <u>None</u> | <u>20% raceway AND 20% electrical room capacity.</u> |
| <u>Group B - Adult Education</u> | <u>Where the building area is 12,000 sq. ft. or greater.</u> | <u>3% of new parking provided, up to 6 spaces.</u> | <u>7% raceway AND 20% electrical room capacity.</u> |
| <u>Group B – Other than Adult Education</u> | <u>Where 6 or more parking spaces are provided.</u> | <u>3% of new parking provided, up to 6 spaces.</u> | <u>7% raceway AND 20% electrical room capacity.</u> |
| <u>Group I - Institutional</u> | <u>Where the building area is 12,000 sq. ft. or greater.</u> | <u>3% of new parking provided, up to 6 spaces.</u> | <u>7% raceway AND 20% electrical room capacity.</u> |
| <u>Group M - Mercantile</u> | <u>Where the building area is 15,000 sq. ft. or greater.</u> | <u>1% of new parking provided, up to 8 spaces.</u> | <u>9% raceway AND 20% electrical room capacity.</u> |
| <u>Group A – Assembly</u> | <u>Where 6 or more parking spaces are provided.</u> | <u>1% of new parking provided, up to 12 spaces.</u> | <u>9% raceway AND 20% electrical room capacity.</u> |

427.3 Electrical room(s). Electrical room(s) serving areas with electric vehicle charging parking spaces shall be designed to accommodate the electrical equipment and distribution required to serve a minimum of 20 percent of the total parking spaces with 208/240 volt 40-ampere electric vehicle charging infrastructure.

427.4 Electric vehicle charging infrastructure. The electrical service capacity and raceway size shall be designed to accommodate the installed and future electric vehicle charging spaces and required infrastructure for the number of spaces specified in section 427.2.

427.4.1 Installed electric vehicle charging spaces. Installed electric vehicle charging spaces shall be provided with a dedicated 40-ampere, 20/240-volt dedicated branch circuit, raceways, and all other electric vehicle charging equipment. The branch circuit shall be identified for electric vehicle service in the service panel or subpanel directory.

Electric vehicle charging station equipment shall be maintained in all respects, including the functioning of the charging equipment. A phone number or other contact information shall be provided on the charging station equipment for reporting when the equipment is not functioning or other problems are encountered.

427.4.2 Future electric vehicle charging spaces. Electric panel capacity and space for future electric vehicle charging spaces shall support a minimum 208/240 volt 40-ampere branch circuit for each future EV parking space. The branch circuit shall be identified as “EV Ready” in the service panel or subpanel directory.

Raceways shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall, or roof assembles, and shall terminate at a point in close proximity to the proposed location of the electric vehicle charging spaces. The raceways shall be permanently and visibly marked as “EV Ready.” Where future electric vehicle charging spaces are located within exterior on-grade parking spaces that are more than four feet from a building, the raceways shall be extended either below grade to a pull box, or stubbed out above grade with protection from vehicles by a curb or other device.

Exception: In lieu of a surface-mounted raceway between the electrical panel and the future electric vehicle charging locations, it is permitted to provide permanent markings indicating the pathway for future raceway, and one-inch diameter capped sleeves through each wall and floor assembly that are penetrated along that route. This pathway and the locations of capped sleeves shall also be indicated on the electrical plans.

Raceways shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall, or roof assembles.



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427.5 Electric vehicle charging infrastructure for accessible parking spaces. When electric vehicle charging infrastructure is required, a minimum of one accessible parking space shall be served by electric vehicle charging infrastructure. The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking.

427.6 Electric vehicle charging station signage. Electric vehicle signage must meet the requirements of RCW 46.08.185. Each charging station space shall be posted with signage indicating the space is only for electric vehicle charging purposes. Days and hours of operations shall be included if time limits or tow away provisions are to be enforced. Way-finding signage shall also be provided where electric vehicle parking is provided in multi-level parking garages.