

Proposing an EV-Readiness Policy for Conditional Zoning Application Reviews:

In 2018, the Transportation and Connectivity Advisory Board (TCAB) recommended the Town Council start a process to amend the Land Use Management Ordinance to add Electric Vehicle Ready requirements. The board outlined the guidance below in their recommendation. This guidance has been used by the TCAB and staff as part of the development review process.

1. In parking lots with more than 50 spaces, EV charging stations installed in at least 3% of all parking spaces used by the project.
 - a. Minimum of two EV charging station parking spaces for each project. One of which must be ADA compliant, per NCDOT's guidelines.
 - b. Provide a Level 2 charging capacity (208 – 240 volts) or greater
 - c. Comply with the relevant regional or local standard for electrical connectors, such as SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle Conductive Charge Coupler so that they are compatible with all types of chargers.
 - d. EV charging station spaces must be separate from and in addition to preferred parking spaces for green vehicles
2. Signage for parking of electric vehicles shall include:
 - a. Information on the charging station to identify voltage and amperage levels and any time of use, fees, or safety information.
 - b. As appropriate, directional signs to effectively guide motorists to the charging station space(s).
 - c. Station(s) reserved for electric vehicles
3. 20% of all total parking spaces will be made "EV Ready" for charging stations, meaning:
 - a. Installation of dedicated electrical circuit and underground conduit required to run electricity to EV charging spot
 - b. Electrical panels labeled "EV Ready"

Town staff would like to provide updated guidance for these EV-readiness recommendations for the following reasons:

- We are planning to propose updates to the Town Council's energy performance policy for new construction and this is an opportunity to capture electric vehicle charging.
- Since the drafting of the original EV-readiness recommendations, there have been a number of local governments to enact policies and ordinances, including regional and NC-based requirements. These policies can offer insight to additional considerations and best-practices.
- Expanding the terminology within these provisions to include considerations based on development type (single-family, multi-unit dwelling, and non-residential) and adding a definition for "EVSE capable" which was not outlined in the 2018 recommendations.
- This update lowers the parking threshold for other use-types (e.g., from 50 to 10), consistent with other guidance from North Carolina (Charlotte).

Proposed Terminology for Town of Chapel Hill

EVSE Capable Parking Space: A designated parking space that is provided with continuous conduit/raceway from a panel. This conduit/raceway should be designed to support future charging stations that provide at least 6 kW of power when not power sharing with other plugs/vehicles. These spaces do not require wiring or receptacles.

- For exterior, surface lots the conduit should be run underground to the parking location.

EVSE Ready Parking Space: A designated parking space that is provided with one 40-amp, 208/240V branch circuit from the panel and is terminated at a receptacle or junction box. The panel should be appropriately labeled as “EVSE-Ready” or “Future EVSE”. This consideration should support any future charging stations that provide at least 6 kW of power when not power sharing with other ports/vehicles.

- If the applicants’ future considerations call for direct-current fast charging (DCFC) infrastructure, then appropriate proportional electrical and conduits should be included.
- Recommended receptacle is a NEMA 14-50, U.L. listed.
- When possible, EVSE-Ready spaces should be identified and shared with the Town of Chapel Hill during the Zoning Compliance Permit review process.

EVSE Installed Parking Space: A designated parking space which includes a “level 2” charging station, capable of providing at least 6 kW of power when not power sharing with other ports/vehicles. These sites must:

- Provide a Level 2 charging capacity (208/240V) or greater.
- Comply with the relevant regional or local standard for electrical connectors, such as SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle.
- Conductive Charge Coupler so that they are compatible with all types of chargers.
- EV charging station spaces must be separate from and in addition to preferred parking spaces for green vehicles.
- When possible, EVSE-installed spaces should be identified and shared with the Town of Chapel Hill during the Zoning Compliance Permit review process.
- Design must adhere to U.S. Access Board’s most recently updated version of the *Design Recommendations for Accessible Electric Vehicle Charging Stations*

	Raceway/Conduit to Parking Space	Dedicated Panel Capacity	Circuit wiring (and breaker)	Junction Box/ Receptacle	Station Installed
EVSE Capable	X				
EVSE Ready	X	X	X	X	
EVSE Installed	X	X	X	X	X

Proposed Provisions for Conditional Zoning Applications:

Development Type	Parking Space Requirements	Provision
Single Family Homes And Town-homes, duplexes with private garages	No minimum threshold	Each unit with on-site parking shall be provided with a minimum of 1 EVSE-Ready Space
Multi-Family Dwellings (including mixed use)	10 spaces or more	Each unit with on-site parking shall be provided with a minimum of 1 EVSE-capable space
Non-residential	10 spaces or more*	5% EVSE Installed (rounded up) 25% EVSE Ready (rounded up)

Standards and Policies Which Informed This Proposal:[City of Orlando](#)[City of Charlotte](#)[City of Denver](#)[CALGREEN](#)

	Raceway/Conduit to Parking Space	Dedicated Panel Capacity	Circuit wiring (and breaker)	Junction Box/ Receptacle	Station Installed
EVSE CAPABLE					
CALGREEN	X	X			
Orlando	X	X 40-amp breaker for every two spaces			
Charlotte	X				
Denver	X				
EVSE READY					
CALGREEN	X	X	X	X	
Orlando	Not Applicable				
Charlotte	X	X	X	X	
Denver	X	X	X 40amp branch circuit	X	
EVSE INSTALLED					
CALGREEN	X	X	X	X	X
Orlando	X	X	X	X	X min. 32amp
Charlotte	X	X	X	X	X
Denver	X	X	X	X	X 40amp dedicated branch circuit