ELECTRIC VEHICLE CHARGING REGULATIONS
Proposed Amendment to
Durham Site Plan Regulations
Prepared by the Durham Energy Committee
For Presentation to Planning Board – October 29, 2025
FOR DISCUSSION ONLY

Please note:

I have made a number of minor, nonsubstantive changes, including correcting punctuation and grammar, improving readability, and making changes to match the formatting of the Site Plan Regulations. More formatting corrections is still needed. Comments and questions and suggested additions and deletions are shown below

Article 4A. Electric Vehicle Charging

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Section 4A.1 Purpose

The purpose of this article is to facilitate and encourage the use of electric vehicles and to expedite the establishment of convenient, cost-effective electric vehicle infrastructure.

In accordance with the Final Recommendations of the N.H. Electric Vehicle Commission (established via Senate Bill 517, adopted in 2018 legislative session), "…encouraging the use of electric vehicles (EVs) in New Hampshire will support economic development in areas of the state dependent on tourism, lower lifetime costs of owning a vehicle for many drivers, and result in lower emissions of criteria pollutants and greenhouse gas emissions that contribute to climate change...The state and municipalities should encourage the installation of charging infrastructure in single family residential, multi-family residential, workplaces, public garages, and municipal locations."

This article establishes minimum requirements for such infrastructure necessary to serve both long-term and short-term EV charging needs and identifies where such infrastructure is permitted.

[clarify if appropriate to include "and identifies…]

It is acknowledged that EV technology and charging station standards are evolving and this article should be reviewed periodically. The Planning Board should use discretion in applying these regulations if evidence suggests newer standards or technology are more appropriate.

Section 4A.2 Definitions

Electric Vehicle (EV). A vehicle registered with the State Department of Motor Vehicles powered primarily by an electric motor, including any battery electric vehicle, fuel cell electric vehicle, or plug-in hybrid electric vehicle, that draws current from an onboard battery charged through an EVSE or other site electrical service.

[Clarify how to refer to systems – EVCS, infrastructure, charging stations, etc.?]

Electric Vehicle Charging ~~Station (EVCS)~~ Levels. Standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is recharged by the charging station. The terms 1, 2, and 3 (DC), are the most common charging levels, and include the following specifications:

> **Level 1 -** provides charging through a 120-volt (V), alternating-current (AC) plug. Level 1 is considered slow charging. Level 1 charging equipment is standard on vehicles and therefore does not require the installation of ***special*** charging equipment. The most common place for Level 1 charging is at the vehicle owner's home and it is typically conducted overnight.
>
> **Level 2 -** provides charging through a 240-volt (residential) or 208-volt (most commercial sites) AC plug and requires installation of home charging or public charging equipment. These units require a dedicated 40-amp circuit. Level 2 chargers are commonly found in residential settings, public parking areas, places of employment and commercial settings.
>
> **Level 3 DC Fast Charger (DCFC) -** provides charging through a 480-volt (or higher), direct-current (DC) plug. Due to their high cost and extremely high-power draw, Level 3 chargers are typically found in commercial or public locations rather than in single-family houses.

Electric Vehicle Infrastructure. Structures, machinery, and equipment necessary and integral for the support of an electric vehicle, including EV charging stations and electrical outlets.

Electric Vehicle Charging Station / Electric Vehicle Supply Equipment ~~(EVSE).~~
Equipment for plug-in power transfer, including ungrounded, grounded and equipment-

grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between wiring on the premises and the electric vehicle.

[What is the difference between EV Infrastructure and EV Supply Equipment? Shouldn't EV Charging Station be a separate definition?]

Electric Vehicle - Installed Space (EV – Installed Space). An off-street parking space with a dedicated branch circuit and electric vehicle supply equipment all in place. An EV – Installed Space provides for Level 2 charging, at minimum.

Electric Vehicle - Ready Space (EV – Ready Space). An off-street parking space provided with a full dedicated branch circuit that includes at least 40-ampere and 208/240-volt panel capacity, conduit or raceways, wiring, receptacle, and overprotection devices terminating in an outlet, receptacle or junction box that will support an installed EVSE and which is located in close proximity to the location of the parking space. For two adjacent EV-ready spaces, a single branch circuit is allowed. These spaces are "ready to go" with the addition of an EV charging station (EVSE).

Electric Vehicle - Prepared Space (EV – Prepared Space). An off-street parking space where there is electrical panel capacity and room in the panel for a branch circuit dedicated to the parking space with at least 40-ampere and 208/240-volt service. There are code-compliant pathways to the perimeter of the structure that will enable the future installation of EVSE. For two adjacent EV-prepared spaces, a single branch circuit is allowed.

Section 4A.3 Applicability

4A.3.1 The requirements for providing EV charging stations in this Article apply to the following:

(a) **New Construction**. New buildings, development and construction projects that are subject to Durham site plan review;

(b) **Renovation**. Any renovation of an existing structure or building that is subject to site plan review and where the permit involves "Substantial Improvement" to an existing building. Substantial Improvement as used herein shall be any combination of repairs, reconstruction, alteration or improvements to a structure in which the cumulative cost equals or exceeds 50 percent of the market value of the structure (as defined in the Durham Zoning Ordinance Article XV, Flood Hazard Overlay District section, 175-77 definitions).

[It may be best to delete b. at this time. This could be challenging to implement where no site changes are involved. It could be incorporated in the future, in some manner, once the regulation is established.]

(c) **New or resurfaced parking areas**. Creation of a new parking space or spaces or resurfacing of a driveway or parking lot where removal of parking surface materials occurs down to the erodible subsurface~~, and the site is zoned and used as multi-family, commercial or other nonresidential property~~.

[The site plan regulations apply specifically to those uses.

What would be involved in placing new conduit in a resurfaced parking lot?

Would this requirement discourage repaving?

How should this apply to townhouses?

How should the number of spaces be determined where there is a renovation with no changes to an existing parking lot? With a renovation and changes to the parking lot which count takes precedent?]

4A.3.2 Where a site plan application is for a portion of an existing site, the required EV infrastructure will be calculated using the total number of parking spaces across the entire site.

Section 4A.4 Required Number of Spaces

EV - prepared spaces, EV - ready spaces, and EV - installed spaces shall be provided based upon a percentage of the parking spaces required as part of the site plan for any project reviewed by the Planning Board as specified below according to the type of project identified in Section 4A.3 above. The percentages below are the minimum percentage of spaces to be provided. In the event that the site plan includes allowance for use of any leased or non-owned parking spaces as a condition of the site plan approval, the Planning Board will ***determine the number of spaces that need to be provided and how the applicant can meet the requirement*** ~~***designate the percentage of spaces and how the applicant will meet the intent of providing the required spaces***~~.

[This can be challenging with leased situations.]

In a mixed-use development the Planning Board will pro-rate required parking spaces based on respective required numbers of spaces by development type. Where the calculations result in a fractional number, the requirement shall be rounded up if the number is .5 or higher and down if the number is less than .5.

For new construction and renovations below, the requirements are based on the number of parking spaces required under site plan review.

[Changes to parking lots, from c, above, needs to be addressed below.]

[What percentage is required for new or resurfaced parking lots?]

4A.4.1 **Multi-Unit Dwellings.** Multi-Unit dwellings includes ~~*55+ age restricted housing developments*~~ *independent senior housing dwelling units*.

(a) **New Construction:**

i. EV - installed spaces: *5%* ~~*for a minimum of 5% of site plan approved parking spaces.*~~

Changed to same format for items below as shown here.]

ii. EV - ready spaces: **10%**

iii. EV - prepared spaces: **15%**

[Are these numbers appropriate? This covers 30% of the spaces.]

(b) **For renovations** ~~*of existing construction*~~

i. EV installed spaces: **5%**

ii. EV-ready spaces: **5%**

iii. EV-prepared spaces: **10%**

4A.4.2 **Institutional Senior Housing**

For Licensed Nursing Homes and Licensed Residential Care (Assisted Living) Facilities This article applies to these housing types based only upon calculated parking spaces required for employees.

For Licensed Continuing Care Retirement Communities (CCRC) and other Independent Living Facilities This article applies to these housing types based upon calculated parking spaces required for employees and independent living residents of the community.

a. **For new construction:**

i. EV - installed spaces: **3%**

ii. EV-ready spaces: **15%**

iii. EV-prepared spaces: **15%**

b. **For renovation ~~of existing construction:~~**

i. EV - installed spaces: **2%**

ii. EV-ready spaces**: 5%**

iii. EV-prepared spaces: **10%**

4A.4.3 **Hotels, Motels and Bed & Breakfast Lodging:** This article applies to these construction types based only upon calculated parking spaces required for guest parking. Any required Employee parking spaces are excluded.

a. **For new construction:**

i. EV - installed spaces: **3%**

ii. EV-ready spaces: **10%**

iii. EV-prepared spaces: **15%**

b. **For renovation ~~*of existing construction:*~~**

i. EV - installed spaces:**2%**

ii. EV-ready spaces: **5%**

iii. EV-prepared spaces: **10%**

4A.4.4 **Other Commercial, Retail, *Industrial*, and Institutional Development.** This includes but is not limited to rooming or boarding houses, fraternities, sororities, auditoriums, theaters, churches, restaurants, retail stores, ***~~food establishments~~***, manufacturing, research and other commercial uses.

This ordinance applies to these construction types based only upon calculated parking spaces required for employees. Site plan applicants will provide a good faith estimate of the maximum number of employees to be present on the highest staffed work shift. Such estimate shall be reasonably consistent with any relevant published industry staffing standards for the type of use seeking approval. Where

the following calculations result in a fractional parking space, it shall round half up to the next whole number.

a. **For new construction:**
   i. EV - installed spaces: **3%**

   ii. EV-ready spaces: **10%**

   iii. EV-prepared spaces: **15%**

b. **For renovation:**
   i. EV - installed spaces: **2%**

   ii. EV-ready spaces: **5%**

   iii. EV-prepared spaces: **10%**

Section 4A.5 Number of Spaces – Additional Information

4A.5.1 **Permitted Substitutions:**

a. Up to **five** Level 2 EV-installed spaces may be substituted with **one** Level 3 EV-installed space (minimum 50kW).

b. Where the number of EV-installed spaces provided exceeds the minimum required, the excess spaces will be deducted from the total number of required EV-ready spaces.

c. Where the number of EV-ready spaces provided exceeds the minimum required, the excess EV-ready spaces will be deducted from the total number of required EV-prepared spaces.

4A.5.2 EV-installed spaces, EV-ready spaces, and EV-prepared spaces are to be included as off-street parking spaces in the calculation for both the number of minimum required and maximum permitted off-street parking spaces.

4A.5.3 Every **two** EV-installed spaces provided in addition to the required minimum may be counted as **four** off-street parking spaces as relates to *Durham Site Plan Regulations Article 10. Parking and Circulation Standards*, for a reduction of total required parking not greater than **10%** of the total amount of required parking.

[Is this clear?]

4A.5.4 These requirements may be revised upward or downward by the Planning Board as part of an application for a Conditional Use Permit or Planned Unit Development based on verifiable information pertaining to parking needs.

4A.5.5 Waivers. The Planning Board will be receptive to considering waivers from the required number of spaces specified in Section 4A.4, in accordance with Part II, Article 7, of these regulations, for good causes, recognizing that every situation is unique regarding the need for and relative ease/difficulty of creating the spaces due to specific site conditions.

Section 4A.6 Design of Charging Stations

4A.6.1 **Size**. A standard size parking space shall be used for an electric vehicle charging station where such a station is required or planned.

4A.6.2 **Equipment Standards and Protection.** Where provided, parking for electric vehicle charging purposes shall meet the standards of (a) through (d) below.

a) **Clearance.** Charging station equipment mounted on pedestals, light posts, bollards or other devices shall be set back a minimum of 24 inches clear from the face of curb.

b) **Charging Station Equipment.** Charging station outlets and connector devices shall be no less than 36 inches or no higher than 48 inches from the top of surface where mounted. They shall be designed and located in order to not impede pedestrian travel or create trip hazards on sidewalks, particularly when power cords are connected to vehicles. NOTE: Power cord connector plug technology has been evolving with changing standards. Installers should verify the proper plug for intended use.

c) **Charging Station Equipment Protection.** When the electric vehicle parking space is perpendicular to or at an angle to curb face and charging equipment, adequate equipment protection, such as wheel stops or concrete-filled steel bollards shall be used.

d) **Maintenance.** 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.

4A.6.3 **Location within a parking lot or structure.** The applicant and Planning Board should consider among other elements distance from electric power panel sources,

ability to expand charging stations numbers based on future demand, visibility for security and ease of locating the station in the lot. Consideration should include access for maintenance of the equipment and protection from snow removal operations. Specific considerations by the Fire Department may include access for firefighting, avoiding proximity to building egress pathways and, for Level 3 DCFC chargers, any proposed placement in parking structures or underground parking garages.

4A.6.4 **Signage**. Electric vehicle charging stations, other than in residential use, shall have posted signage allowing only charging electric vehicles to park in such spaces. For the purposes of this subsection, "charging" means that an electric vehicle is parked at an electric vehicle charging station and is connected to the charging station equipment. Signage for parking of electric vehicles shall include information on the charging station to identify voltage and amperage levels and any time of use, fees, or safety information.

4A.6.5 **Time limits.** Limits may be placed on the number of hours that an electric vehicle is allowed to charge in order to prohibit indefinite charging/parking. If applicable, warnings shall be posted to alert charging station users about hours of use and possible actions affecting EVCSs that are not being used according to posted rules.

[Need to clarify how to identify – not EVCS]

4A.6.6 **Hours.** The EVCS must be operational during the normal business hours of the use(s) that it serves. EVCS may be de-energized or otherwise restricted after normal business hours of the use(s) it serves.

4A.6.7 **Usage Fees.** A property owner or operator is not restricted from collecting a service fee for the use of an Electric Vehicle Charging Station made available to users.

4A.6.8 **Accessibility**. Where electric vehicle charging stations are provided in parking lots or parking garages, excluding garages in single-family or two-family residential units, at least one accessible electric vehicle charging station shall be provided when seven or more operating EVCS are installed.

[We need to address the zoning issue of where and how chargers are allowed – as accessory uses, as principal uses, etc.]