



## Text File

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Performance and Asset Management

**Status:** Passed Finally

Ordinance supplementing the Pittsburgh Code, Title Four: Public Places and Property, Article XIV: Public Buildings by creating a new Chapter 489: Electric Vehicle Charging to ensure that new and renovated City-owned facilities are ready to and capable of supporting the growing demand for electric vehicle charging.

WHEREAS, the City of Pittsburgh's Climate Action Plan 3.0 highlights the need to address the threat of climate change by building a more sustainable municipal operation and creating a fossil-fuel free fleet by 2030; and,

WHEREAS, the City of Pittsburgh has made substantial progress toward shifting its municipal fleet to electric vehicles, including the recent purchase of 36 new electric vehicles and the first electric bucket truck and the installation of infrastructure to accommodate the charging of the new vehicles, with commitments to purchase electric refuse trucks, pickups and vans in 2022; and,

WHEREAS, in April 2021, in collaboration with the Bloomberg Philanthropies American Cities Climate Challenge and the Pittsburgh Parking Authority, the City's Department of City Planning has published an Electric Vehicle (EV) Charging Strategic Plan for Pittsburgh Public Facilities. By 2025, the Strategic Plan aims to expand to over 200 new public charging plugs and work with stakeholders to increase the total number of public charging plugs to over 2,000 across the City. This includes at least four plugs in each Council District and a goal to ensure every household is within a 10-minute walk of a public Level 2 charger or a 10-minute drive of a DC fast charger; and,

WHEREAS, in August 2021, U.S. President Joseph R. Biden, Jr. issued an Executive Order to ensure that the United States of America is a leader in electric vehicles, and the City of Pittsburgh stands ready to ensure that our facilities are ready to and capable of supporting the growing demand for electric vehicle charging stations for our own fleet and for the public.

**The Council of the City of Pittsburgh hereby enacts as follows:**

**Section 1.** The Pittsburgh Code, Title Four: Public Places and Property, Article XIV: Public Buildings is hereby supplemented by creating a new Chapter 489: Electric Vehicle Charging as follows:

### **Section 489.01 Policy and Purpose**

As electric vehicle sales increase and the market for these vehicles grow, the City of Pittsburgh is committed to supporting electric vehicles, coupled with renewable power supply, as the emission-free future of transportation. By the application of this code, the City commits to meeting current and anticipated future

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demand for electric vehicles by developing the necessary infrastructure to support electric vehicle resupply, which, when the electrical capacity and equipment is installed simultaneous to a construction improvement or as part of new construction, drastically lowers the cost of providing this facility as compared to a later remodel or retrofit.

### **Section 489.02 Responsibility**

The Fleet Manager within the Office of Management and Budget and the Director of the Department of Public Works or their designees shall collaborate with the City of Pittsburgh Intradepartmental Electric Vehicle Task Force, which includes designated staff from the Sustainability and Resilience Division, the Public Parking Authority of Pittsburgh, Permits Licensing and Inspections, and the Department of Public Works, and together decide on the installation of level 2 and DC Fast Charging stations to meet the needs of the City of Pittsburgh's fleet of vehicles. Until official guidance is developed and issued, the Director of the Department of Public Works shall consult with the Intradepartmental Task Force to ensure that all upgrades to City facilities incorporate make-ready infrastructure to accommodate Electric Vehicle Chargers for use by fleet vehicles and/or the public and City staff on City-owned property.

### **Section 489.03 Applicability**

Unless exempted by Section 489.09, all new buildings and parking facilities constructed on City-owned property, and all major renovations, particularly those related to Electrical or Parking Renovations of existing buildings on City-owned property, must be provided with EV-Ready or EV Capable spaces in accordance with this Chapter.

### **Section 489.04 Definitions**

- (a) Electrical or Parking Renovations** shall mean any facility project intended to physically modify an existing building in a substantial way, including, but not limited to, work on the building's electrical infrastructure or certain work in the parking lot or garage, including, but not limited to lot resurfacing, parking lighting upgrades, and/or green infrastructure projects in the parking structure or lot. In cases where a determination is needed regarding the applicability of this Section to a construction or renovation project, the Director of the Department of Public Works or their designee shall make a determination in consultation with the Interdepartmental Electric Vehicle Task Force.
- (b) Electric Vehicle (EV)** shall mean an automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Plug-in hybrid electric vehicles are electric vehicles having a second source of motive power. Off-road, self-propelled electric mobile equipment, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not considered electric vehicles.

- (c) **Electric Vehicle Supply Equipment (EVSE)** shall mean the conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.
- (d) **Level 2 EV Charging** shall mean Electric Vehicle Supply Equipment (EVSE) that operates on a 40-amp 208/240-volt circuit and provides power at a minimum of 6.2kW.
- (e) **Direct Current Fast Charger (DCFC or Level 3 EV Charging)** shall mean Electric Vehicle Supply Equipment (EVSE) that operates on a 480-volt circuit and provides a minimum of 50kW of power.
- (f) **Electric Vehicle Supply Equipment (EVSE) Space** shall mean a designated parking space with dedicated electric vehicle supply equipment capable of supplying not less than 6.2 kW to an electric vehicle located within 3 feet (914 mm) of the parking space.
- (g) **Equipment** shall mean piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.
- (h) **EV-Capable Space** shall mean a parking space that is provided with conduit that meets the following requirements:
1. The conduit shall be continuous between a junction box or receptacle located within 3 feet (914 mm) of the parking space and an electrical panel serving the area of the parking space with sufficient dedicated physical space for a dual-pole, 40-amp breaker.
  2. The conduit shall be sized and rated to accommodate a 40-amp, 208/240-volt branch circuit and have a minimum nominal trade size of 1 inch.
  3. The electrical junction box and the electrical panel directory entry for the dedicated space in the electrical panel shall have labels stating "For future electric vehicle charging."
- (i) **EV-Ready Space** shall mean a parking space that is provided with dedicated branch circuit that meets the following requirements:
1. Wiring capable of supporting a 40-amp, 208/240-volt circuit,
  2. Terminates at a junction box or receptacle located within 3 feet (914 mm) of the parking space, and
  3. The electrical panel directory shall designate the branch circuit as "For electric vehicle charging" and the junction box or receptacle shall be labelled "For electric vehicle charging".

### Section 489.05 Electric Vehicle Charging

- (a) Parking facilities shall be provided with EVSE spaces at the discretion of the Interdepartmental Electric Vehicle Task Force and the Fleet Manager to ensure that installed EVSE aligns to support with newly procured electric vehicles for the City's fleet. The guidance in Table A is intended to be used to

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determine the standard EV-Ready and EV-Capable installed infrastructure at a given location. The Fleet Manager and the Interdepartmental Electric Vehicle Task Force will collaborate to determine if more infrastructure is required to accommodate fleet needs at a given location.

- (b) City-owned parking facilities shall be provided EV-Ready and EV-Capable spaces in accordance with Table A based on the total number of parking spaces and rounded up to the nearest whole number.
- (c) Where more than one parking facility is provided on a building site, the number of parking spaces shall be calculated separately for each parking facility.
- (d) The branch circuit serving EV-Ready spaces shall have a minimum capacity of 1.8 kVA.
- (e) EVSE, EV-Ready spaces and EV-Capable spaces may be counted toward meeting minimum parking requirements. EVSE spaces may be used to meet requirements for EV-Ready spaces and EV-Capable spaces. EV-Ready spaces may be used to meet requirements for EV-Capable spaces.
- (f) The number of EV installed spaces may be reduced by up to five (5) provided that the building includes not less than one (1) parking space equipped with a Direct Current Fast Charger and not less than one (1) EV-Ready space.

**TABLE A:**

<u>OCCUPANCY</u>	<u>Minimum EV READY SPACES</u>	<u>Minimum EV CAPABLE SPACES</u>
1-5 spaces	Discretion of the Intradepartmental Electric Vehicle Task Force	Discretion of the Intradepartmental Electric Vehicle Task Force
6-19 spaces	20% spaces	40% spaces
20+ spaces	10% spaces	25% spaces

**Section 489.06 Direct Current Fast Charging (DCFC)**

Each installed DC Fast Charge port may reduce the total number of EV charging spots by five (5) spaces, provided that there is still a minimum of two (2) Level 2 charger ports available. Electrical panels serving the DC fast charger must have capacity to provide a minimum of 63-amps at 480 volts AC and 2-amps at 120 volts AC, as well as a 40-Amp 208 or 240-volt branch circuit for each Level 2 charger in that area.

**Section 489.07 Accessibility**

A minimum of one (1) EVSE installed space shall be located adjacent to an ADA-designated space to provide

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access to the charging station. It shall be designated as an EV-Reserved space. These EVSE accessible spaces should have all relevant parts located within accessible reach, and in a barrier-free access aisle for the user to move freely between the EVSE and the electric vehicle.

### **Section 489.08 Construction Documents.**

- (a) Construction plans and specifications shall detail the location of designated EVSE spaces, EV-Ready spaces, and EV-Capable spaces in parking facilities. EV parking spots should be located in close proximity to electrical panels to reduce the cost of EVSE installation.
- (b) Documents must also include:
  - 1. Raceway(s) that originate at an electrical panel or subpanel and terminate near the proposed EVSE location, and into the appropriate pull-box or enclosure.
  - 2. An electrical plan based on 40-ampere minimum branch circuits.
  - 3. Electrical calculations that ensure that the electrical system, equipment rating, distribution transformers have sufficient capacity to serve all planned future charging stations operating at the same instance and charging EVs are their full rated amperage.
  - 4. Assurance that the service panel or subpanel in the area can accommodate the number of individual branch circuits required to serve the future planned EVSE.
- (c) Any conduit pathway or other electrical infrastructure needed to install future EVSE at *EV capable spaces*, that would be costly to install after construction (e.g. conduit from basement electrical panels to an upper floor of a parking garage, that requires drilling) should be installed during construction at the time that EV ready conduit is installed.

### **Section 489.09 Exemptions.**

The City shall comply with Section 489.05 fully unless one or more of the following exemptions applies to the project and the reasons for the exemption are clearly documented in the plan as submitted to the Intradepartmental Electric Vehicle Task Force:

- (a) Where a renovation occurs in response to an urgent life-safety matter that requires initiating immediate action within three (3) months or less with a goal of returning a space to its original condition.
- (b) In a life-safety, emergency situation, such as a natural disaster, where the Director of the Department of Public Works or their designee determines that compliance with this Section would impact the City's ability to respond to the emergency in a timely and safe manner.
- (c) Where a project is determined by the Director of the Department of Public Works to be consistent with the purpose of this Chapter, but where full compliance would not be possible or significantly feasible.
- (d) On City-owned properties that are leased or operated by organizations other than the City of Pittsburgh.