



# Guide to Installing Electric Vehicle Chargers in Alexandria

This checklist guides homeowners, businesses, condominium owners, and other organizations installing charging infrastructure on private property within the City of Alexandria. This document covers the following charging types:

- Level 1 - 110/120 volt alternating current (VAC) at 15 or 20 Amps
- Level 2 - 3.3 kilowatt (kW) (low): 208/240 VAC at 20 or 30 Amps
- Level 2 - 6.6kW (medium) 208/240 VAC at 40 Amps
- Level 2 - 9.6kW (high): 208/240 VAC at 50 Amps
- Level 2 - 19.2kW (highest): 208/240 VAC at 100 Amps

If you plan to install fast chargers (>19.2 kW), please contact Planning and Zoning City staff directly. Before beginning, please review the list of Frequently Asked Questions on Page 4 of this document.

## Installing Chargers in Alexandria Historic Districts

If the proposed charging station will be located on a property within [one of the two historic districts](#) or one of the designated 100-Year-Old Buildings, the station will be subject to the purview of the [Board of Architectural Review](#). Applicants should review the [Design Guidelines](#) which can be found on the Historic Preservation Website and prepare a submission for a Certificate of Appropriateness to be submitted through the APEX portal. Any questions about this process or to determine if your property is within one of the historic districts, please contact Historic Preservation staff at [Preservation@alexandriava.gov](mailto:Preservation@alexandriava.gov).

# Permitting Checklist

For all charging stations installed in Alexandria, apply for applicable permits through the City’s APEX system located on this [website](#).

## 1. Applying for electrical permit through Apex

- a. **Residential:** Select Electrical-Alterations or Electrical-New (depending on the situation). If additional work is to be completed, a building permit may also be required. Submit manufacturer’s specification for the charger, information regarding electrical conductors’ sizes and types, means of overcurrent protection and an electrical panelboard schedule with load calculation
- b. **Commercial:** Select Electrical-Alterations. Submit manufacturer’s specification for the charger, information regarding electrical conductors’ sizes and types, means of overcurrent protection and an electrical panelboard schedule with load calculation

## 2. Applying for building permit through APEX

The table below describes permitting requirements by charger type.

Property Type	Charger Placement	Building Permit	Electrical Permit	Plat Required	Site Plan Required
Residential	Wall-Mounted	*	X		
	Ground-Mounted		X	X	X
Commercial	Wall-Mounted	*	X		
	Ground-Mounted		X	X	X

**\*May be requested if, upon electrical permit review, any structural or building code issues need to be addressed.**

- a. **Residential property:** Select Residential Building - Addition & Alteration
  - i. NOTE: Building permits are not initially required as they would typically be reviewed and permitted under the electrical permit process. However, a building permit may be requested when needed to address any recognized structural issue.
  - ii. If installing a ground-mounted charger, submit a Plat in APEX by clicking “attachments.” A survey plat to scale must be submitted to show the location of the proposed ground mounted charger.
  - iii. If installing a wall-mounted charger, no Plat is required.
- b. **Commercial property:** Select Commercial-Building Addition & Alteration
  - i. NOTE: Building permits are not initially required as they would typically be reviewed and permitted under the electrical permit process. However, a building permit may be requested when needed to address any recognized structural issue.
  - ii. If installing a ground-mounted charger, submit a property survey or site plan in “attachments.” A survey plat or site plan to scale must be submitted to show the location of the proposed ground mounted charger.
  - iii. NOTE: If adding more than 5 parking spaces, a new or amended site plan may be required.

3. **Installing charger.** Purchase charger from charging vendor and work with a qualified electrician to install the charger. The [US Environmental Protection Agency](#) (EPA) offers helpful information related to charger installation incentives, the cost of charging, and more. Additionally, the EPA's [ENERGY STAR program](#) has recommendations on efficient chargers.
4. **Scheduling an inspector.** Once the charger is installed and prior to beginning operation, schedule an inspection using the City's APEX system. Ensure contractor (if used) is present at inspection. Follow this sheet: [How to Request Inspection](#)
5. **Registering charging stations.** Consider registering station with an online charging station locator, such as:
  - **AFDC Station Locator.** The US Department of Energy administers the ADFC Station Locator map. To submit a new publicly accessible station location, follow the instructions on this [form](#).
  - **Plugshare.** This website and smartphone app show both residential and commercial charging locations. Follow the instructions on [this website](#) to list your new station.
6. **Other considerations**
  - **Green Building certification.** By installing chargers at your location, you may be eligible to earn certification points towards a green building certification such as the US Green Building Council's Leadership in Energy and Environmental Design ([LEED](#)) or similar program, or compliance with the City's [Green Building Policy](#) for new building construction. Eligible parking spots must be labeled for electric vehicle (EV) use only.
  - **Electric vehicle charging tariffs.** Contact [Dominion Energy](#) about any eligible electric vehicle charging incentive programs or electricity tariffs to support your electric vehicle charger.
  - **Parking Requirements.** Electric vehicle charging spaces count toward parking space requirements at the same rate as standard parking requirements, assuming no spaces are removed to be able to provide equipment. A certain percentage of parking spaces in developments that go through a Development Special Use Permit (DSUP) or Development Site Plan (DSP) process are required to have EV chargers or be EV ready.

# Frequently Asked Questions

## **What resources are available to homeowners who would like to install EV charging stations?**

The City is beginning to implement the Electric Vehicle Charging Infrastructure Readiness Strategy (EVRS). Implementation of the EVRS is currently not funded, so City staff are working to implement aspects that may overlap with existing processes or programs already underway. The EVRS is located at this [website](#). Dominion Energy also offers [incentive programs](#).

## **What are the options for an EV owner who cannot install a charging station in their home/parking lot?**

For those who are unable to install charging stations at their home, there are increasing opportunities for [publicly accessible charging](#) at retail or other publicly-accessible locations. Moreover, the City is evaluating policies and opportunities for curbside charging in the public right-of-way of streets where such use may not come into conflict with other uses or community priorities. Read the Alexandria Mobility Plan for more information on this. The chapter on Curbside and Parking opportunities discusses uses and policies related to uses of curbside charging in the public right-of-way of streets.

## **Does the city have any programs to assist with installing a private charging station along the curb?**

The City does not have a process or program to install a private charging station along the curb for charging access for vehicles to park and charge. As such, we continue to recommend that residents find off-street charging options.

## **Does the city provide any financial assistance for the installation of EV charging stations at multi-family dwellings or condos?**

- The Commonwealth of Virginia does not currently offer any grants or financial assistance for installation of EV charging stations at multi-family dwellings or condos. Through a Virginia Department of Environmental Quality program – The Volkswagen Mitigation Trust – there is funding for publicly-accessible charging in retail and public locations.
- The federal government also does not currently offer any grants or financial assistance for installation of EV charging stations at multi-family dwellings or condos.
- Dominion Energy's [Smart Charging Infrastructure Pilot Program](#) is providing some reimbursement for multi-family installations. It is a pilot program and subscriptions may be fully subscribed for the multi-family/condo program allocations. However, they have indicated they will be rolling out more funding/grant programs in the future. Dominion- Energy recommends interested customers continue to apply for program rebates to be added to the waitlist, which will allow for future updates on incentive opportunities when they become available. Rebates available through this program are available on Dominion Energy's website.

## **Is there funding available to help offset the cost of the charger?**

- Government incentives for chargers are continuously evolving. At the time of publication, a federal government tax credit covers 30% of the costs with a maximum \$1,000 credit for residents and \$30,000 federal tax credit for commercial installations. To obtain the tax credit, fill out [Form 8911](#) with your annual taxes. Other incentives may become available from Dominion Energy, the Commonwealth of Virginia, and the City of Alexandria.

## **Are there any City tax exemptions available?**

There are none available at this time.

### **Where can you install a private charging station?**

- Electrical permits are needed for the installation of EV chargers on private property, and the Board of Architectural Review (BAR) currently reviews any charging stations that are visible from a public right-of-way. Anything located on private property (i.e., condo association common areas) and not visible from a public street, alley, sidewalk, etc. do not require BAR review or approval.
- Installation of private charging infrastructure in the public right-of-way is not permitted, as this removes public parking as a resource from the rest of the community.
- Installation at a privately-owned parking spot is allowed as long as:
  - It is in compliance with zoning and BAR requirements, and necessary permits have been obtained.
  - There is no obstruction of any public sidewalks.

### **Who can I ask for more information on electrical connections, tapping into existing power sources, running new line from overheads, running power to the charger, etc.?**

For these questions, please contact your electrical contractor first and then Dominion Energy.

### **Does the City have restrictions on the installation and/or placement of a permanent exterior car charger?**

No, as long as there are no known zoning, historic preservation, or other related land-use restrictions for the location in question. However, it may be beneficial to have a contractor conduct an additional check.

### **How much does the permit application and permit cost?**

The electrical permit fee to construct a new residential unit built in accordance with the International Residential Code (Detached single family, duplex or townhouse) is \$194.00 per dwelling unit. For information on electrical permit fees for New Construction Non Residential and Building Core and Shell or Special Electrical Permit Fees, review the Electrical Permit Fees section of the City of Alexandria [Building Code Fee Schedule](#).

### **How long does the permit approval process take?**

Plan Review timetables can be found online [here](#).

**Does the City require any inspections to be done, if so, how many?** Inspection instructions can be found online [here](#).

### **Does the electric charger have to be installed by a certified installer/electrician? Would we need any permits or inspections from the City?**

Yes. Your contractor is required to pull applicable permits, and this will require an inspection. At minimum, this would include an electrical permit, but depending on the installation may require other permits as well (structural, say, if there was a need for bollards or if there is an independent mounting structure installed, etc.). It is recommended that your contractor contact the City's Code Administration team to ask specific questions once the extent of the installation being considering is determined. (<https://www.alexandriava.gov/Code>)

### **Can a single electric vehicle charging station be installed at a location and shared among different homeowners/businesses/workplaces, where use by any individual homeowner/business/workplace is then metered and charged to the individual accordingly?**

Yes – there are electric vehicle charging station vendors who offer this feature through an accounts-based system. For example, each homeowner/business/workplace who might use the electric vehicle charging station would have an account and upon using the electric vehicle charging station, usage charges would be charged through whatever payment method they have set up in the account system.

Alternatively, an electric vehicle charging station could be set up to accept payment by credit cards or an alternative payment method, etc. There are some online applications available, like [EVmatch](#) or [AmpUP](#), to assist parties with such an arrangement.

**Can I run an extension cord from my house across public property (e.g., curb, amenity zone, sidewalk) to my electric vehicle parked on the public street?**

At this time, the City does not have a program to allow for electric cables to run from private homes over the right-of-way to vehicles and ensure safety for pedestrians and other members of the Alexandria community.

**What are the options for an EV owner who cannot install a charging station in their home/parking lot?**

For those who are unable to install charging stations at their home, there are increasing opportunities for publicly accessible charging at retail or other publicly-accessible locations. Moreover, the City is evaluating policies and opportunities for curbside charging in the public right-of-way of streets where such use may not come into conflict with other uses or community priorities. Read the Alexandria Mobility Plan for more information on this. The chapter on Curb Side and Parking opportunities discusses uses and policies related to uses of curbside in the public right-of-way of streets.

**Does the City have any programs to assist with installing private charging station along the curb?**

The City does not have a process or program to install a private charging station along the curb for charging access for vehicles to park and charge. As such, we continue to recommend that residents find off-street charging options.

**What is the procedure for electric charging infrastructure for properties located in historical districts?**

If the proposed charging station will be located on a property within one of the two historic districts or one of the designated 100-Year-Old Buildings, the station will be subject to the purview of the [Board of Architectural Review](#). Applicants should review the [Design Guidelines](#) which can be found on the Historic Preservation Website and prepare a submission for a Certificate of Appropriateness to be submitted through the APEX portal. Any questions about this process or to determine if your property is within one of the historic districts, please contact Historic Preservation staff at [Preservation@alexandriava.gov](mailto:Preservation@alexandriava.gov).

**I am installing a publicly accessible charger. How do I ensure the charging station shows up on online charging maps?**

Two popular websites with station location information are listed below.

- **AFDC Station Locator.** The US Department of Energy administers the ADFC Station Locator map. To submit a new publicly accessible station location, follow the instructions on this [form](#).
- **Plugshare.** This website and App show both residential and commercial charging locations. Follow the instructions on [the website](#) to list a new station.

For more information, contact the City of Alexandria's Permit Center at 703.746.HELP (4357).