

2381.0001 April 15, 2024

# <u>Clearbrook Community Association, Inc.</u> Electric Vehicle Charging (EVC) Standards

- 1. All installations must be in accordance with:
  - New Jersey Uniform Construction Code (UCC)
  - International Residential Code New Jersey Edition 2021
  - International Mechanical Code 2018 Edition
  - National Energy Conservation Code 2018 Edition
  - National Electric Code 2017 Edition
- 2. Application must be made to the Monroe Township Building Department for the following required permits:
  - a. Electrical Permit An electrical line diagram for the required transfer switch must be provided by a licensed electrician. Load calculations must also be provided.
  - b. A letter from the Association stating the EVC installation is an accepted use within the community is required.
- 3. The Unit Owner shall comply to the following:
  - The EVC station shall be installed within the garage of the residential unit. Regarding an EVC for parking spaces.
  - Comply with the Association's Architectural Standards.
  - The application submission shall include cut sheets and copies of the EVC manufacturer's installation and operation standard/specifications in addition to the requirements of the Association's Architectural Standards. The EVC and related equipment shall be underwriters laboratories (UL) approved.
  - Engagement of a Licensed Electrician to install all required electric lines and electrical infrastructure, except if the unit owner will be installing a Level 1 Charging Station and the Level 1 Charging Station will be plugged into an existing outlet, a licensed electrician is not required for installation.
  - Obtain requisite insurance prior to the installation indemnifying the Association and will carry sufficient coverage to cover the EVC Station.
  - Pay for the electricity associated with the EVC Station and shall reimburse the Association its reasonable costs of the application review, including reasonable Engineering and Attorney's fees.

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• The Unit Owner shall engage a New Jersey licensed Architect or Engineer to evaluate and provide certification that an adequate fire separation assembly exists between the garage and living area of the dwelling. The fire separation assembly shall meet applicable code requirements at the time of original construction of the residential unit.

If the existing fire separation assembly does not meet the requirements, modifications to the garage will be necessary to allow for the Architect or Engineer's certification regarding the fire separation assembly.

- If each EVC Station does not have its own meter, the Association may assess the Owner for any additional costs in the use of the electricity, including any infrastructure improvements needed to accommodate the EVC Station. The cost assessed to the Owner can be collected in the same manner as common expense assessments.
- A Unit Owner who owns an EVC Station and each successor Owner is individually responsible for the costs of the following items:
  - Any damage as a result of the installation, maintenance, repair, removal, or replacement of the EVC Station.
  - Any maintenance, repair, or replacement of the EVC Station.
  - Restoration of the area if the EVC Station is removed.
  - The electricity usage for the EVC Station.
  - All installation costs for the EVC Station.
  - All costs associated with the Unit Owner's application to install/use the EVC Station that are incurred to satisfy applicable governmental requirements.
- If the Unit Owner who owns the EVC Station fails to maintain the required insurance, the Association may obtain it on the Owner's behalf and charge the Unit Owner in the same manner as the common expense assessments.
- A Unit Owner who owns the EVC Station must hold the Association and all other Unit Owners harmless from any and all claims, liabilities, costs, and expenses relating to personal injuries, death, or other property damage caused by the installation, removal, or use of the EVC Station.
- The Unit Owner's Contractor, its employees and subcontractors shall observe and comply with all Federal, State and Local Laws, rules, statues, ordinances and regulations, Occupational Safety Health Administration (OSHA) and Regulations that affect the work or those engaged in the performance of the Work described herein, and the materials, methods or equipment used.
- Unless otherwise specified herein, all materials and products shall be transported, handled, stored, constructed, fastened, installed, and finished in accordance with the respective manufacturer's recommendations and guidelines. If differences exist between the manufacturer's recommendations and guidelines and these standards, the Contractor shall advise the Association. The Association shall make the final determination as to which methods will govern.

- The Unit Owner's Contractor shall secure any, and all permits, licenses and bonds required for the project. Payment for such fees associated with the permit process or construction project shall be paid by the Contractor and the Unit Owner.
- The Unit Owner and Contractor should refer to the Association's current Architectural Rules for any other Contractor requirements.
- The Contractor shall conduct this work at the site Monday through Friday, 7:30am to 6:00pm, Saturday 7:30am to 5pm and excluding Sundays and Holidays.
- The Contractor should be aware that various utilities may exist within the building structure and site the location of which are unknown to the Association and Engineer. All work shall proceed with the knowledge that such utilities may exist, and the Contractor shall take all necessary measures to secure, protect or temporarily relocate such utilities. In case of damage, the effected utility must be restored immediately by the Contractor at his own expense, and the Owner must be immediately notified.
- The Contractor shall make arrangements for all electrical power supply, water and other utilities required to complete the work required. The Contractor shall not use the utilities at private residences, other than the Unit Owner's.

## **GENERAL CONDITIONS**

It is the intent of these Standards to provide a basis which consists of furnishing all labor, materials, and equipment necessary to perform the work outlined in the Standards. The work will include and shall not necessarily be limited to the installation of Electric Vehicle Charging Stations.

It is understood by the Contractor that throughout the period of the Contract the buildings of the section of the Condominium Association in which the unit is located shall be continuously occupied. The Contractor shall perform the work in such a manner as to provide safe and continuous access to each building and protect the security and privacy of the occupants.

Regardless of weather conditions, or any other factors, the Contractor shall be solely responsible to conduct the work in such a manner to prevent any damage or water infiltration into the buildings.

The Contractor shall do all cutting, fitting, or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by other work shown, or reasonably implied, by the Standards.

- The indoor charging receptacle/coupler to be stored or located between eighteen (18") and forty-eight (48") inches above the garage floor.
- All explosive materials, flammable vapors, liquids and gases, combustible duct or fibers, and materials that ignite spontaneously on contact with air should be kept away from all EVC.
- The EVC station installed in garages must be wall mounted.

• If any damage or disturbance to any common element as a result of the installation of the EVC, the common elements, the unit owner shall be responsible to restore the common element(s) to their previously existing condition. If the unit owner fails to do restore any damage caused, the Association will make the necessary restoration and charge the unit owner.

# **LEVEL 1 INSTALLATIONS**:

- Level 1 Charging: 120-Volt: Level 1 charging uses a common 120-volt household outlet. It adds between three (3) and five (5) miles of range per hour. A Level 1 charging works well for plug-in hybrid electric (PHEV's) because they have smaller batteries, currently less than 25 kWh. Since EV's have much larger batteries, Level 1 charging is too slow for most daily charging, unless the vehicle isn't needed to drive very far on a daily basis.
- <u>Cords and Plugs</u>: The EVC can be fastened in place or be cord and plug connected, but it should have no exposed live parts and must be grounded.
- <u>EV Connectors</u>: (*For Conductive Connection Only*) Connectors shall be polarized, protected by double insulation, and non-interchangeable with receptacles in other electrical systems; made to avoid inadvertent contact between the user and live parts; designed to prevent unintentional disconnection; and have a grounding pole which connects first and disconnects last. The Charger or Vehicle Manufacturer normally supplies this cable and connector to match the vehicle.
- The EVC shall have a listed system of protection against electric shock of people using the device. The personal protection system shall be made up of listed protection devices and construction features.

Regarding cord-and-plug connected EVC, the interrupting device of a listed of personal protection system shall be provided and be an integral part of the attachment plug or be located in the power supply cable not more that twelve (12") inches from the attachment plug.

• The EVC *cannot* be used as a Standby Power supply for the house and a means must be provided to prevent power feedback to the residence.

### **LEVEL 2 INSTALLATIONS**:

**Level 2 Charging: 208-Volt to 240-Volt:** Replenish between twelve (12) and eighty (80) miles of range per hour. A Level 2 charger can deliver up to eighty (80) amps of power. But that requires a 100-amp, 208-240V dedicated circuit

- <u>Overcurrent Protection</u>: To meet loads associated with Level 2 charging, a minimum of forty (40) amp, twopole circuit breaker at the beginning of the circuit located in the meter panel breaker section will be necessary if no additional loads are on the circuit.
- <u>Safety Switch</u>: For EVC rated for more than sixty (60) amps or more than one hundred-fifty (150) volts to ground, a means of disconnect must be installed in a readily accessible location within sight of the electric charging connector, if the disconnect is not in sight of the equipment, it must be capable of being locked in an open position. Depending on Local requirements, a fused switch may be needed if the switch is not readily available or is not visible from the main panel.

- <u>Receptacle and Wall Plug</u>: Where the EVC calls for an in-wall receptacle, a fifty (50) amp, two hundredforty (240) volt, three 3 or four (4) wire wall plug configuration is required. However, most charging equipment will be directly wired, eliminating the need for an in-wall receptacle. Level 2 EV connectors are designed so that they cannot be used with receptacles of other electrical equipment, and the EVC label *"For use with Electric Vehicles"*.
- <u>Cables and Connectors</u>: EVC charging cable must not exceed twenty-five (25') feet in length and they cannot have mid-cord coupling. Cables must be type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable. EV charging cables and connectors come with a charger. The connector must include an interlock to de-energize it when it is unplugged from the vehicle, or when it is subjected to stress that may rupture or break it, or when it becomes a shock hazard. The grounding pole for conductive connectors are the first contact made and last broken. EVC charging cables may not be run across general common elements.
- <u>No Back-Feed of Electricity to Residence</u>: The EVC <u>cannot</u> serve as a standby power supply for the house, and a means must be provided to prevent power from being fed back to the residence.

Level 3 Charging: 400-Volt to 900-Volt (DC Fast Charging & Supercharging): Level 3 is the fastest type of charging available. Unlike Level 1 and level 2 charging that uses alternate current (AC), Level 3 charging uses direct current (DC). Level 3 Chargers are not permitted by the Association.