



## TOWN OF NISKAYUNA

# NY State Unified Electrical Vehicle Supply Equipment (EVSE) Permit

One Niskayuna Circle, Niskayuna NY 12309  
Phone: 518-386-4522 Fax: 518-386-4592  
Email: [building@niskayuna.org](mailto:building@niskayuna.org)

The Town of Niskayuna has adopted the NYS Unified Electrical Supply Equipment (EVSE) Permit Application in order to streamline EVSE installations for its residents while providing consistent and thorough review of EVSE permitting applications and installations. Upon approval of this application and supporting documentation, the Town of Niskayuna will issue a building permit for the EVSE installation described herein.

### ADDRESS

Address of Installation \_\_\_\_\_

Building Permit # \_\_\_\_\_

Project Value \_\_\_\_\_

### PROJECT ELIGIBILITY FOR UNIFIED PERMITTING PROCESS

In order to be eligible for the unified permitting process, the proposed EVSE installation system must be one of the following situations.

- Yes       No      1. An additional branch circuit will be added at the residence
- Yes       No      2. A hard-wired charging station will be installed at the residence (If variance or permit has already been issued answer YES and attach a copy)

If the project does not fall under either of the above situations, the project is not eligible for the Unified EVSE Permit and must be processed through a conventional Building Permit application to the Town of Niskayuna. Building Permit applications may be downloaded at <http://www.niskayuna.org/building-inspector/pages/downloadable-forms> or obtained in person in the Niskayuna Building Department (One Niskayuna Circle, Niskayuna NY, 12309) Monday – Friday from 8 a.m. to 5 p.m.

### SUBMITTAL INSTRUCTIONS

For projects meeting the eligibility criteria, the following documents will constitute an acceptable Unified EVSE Permit Application package:

- This NY State Unified EVSE Permit Application form, with all fields completed and bearing relevant signatures.
- A Town of Niskayuna Building and Zoning Permit to accompany this Application form.
- Required Construction Documents for the EVSE system type being installed (see Supplemental Instructions)

Completed permit applications can be submitted to the Town of Niskayuna Building Department *in person* at One Niskayuna Circle, Niskayuna NY 12309 or *via email* to [building@niskayuna.org](mailto:building@niskayuna.org).

Permitting fees are due upon issuance of permit. Fees can be in the form of cash or check. Checks should be made payable to Town of Niskayuna.

### APPLICATION REVIEW TIMELINE

The Town of Niskayuna will provide feedback within 14 calendar days of receiving incomplete or inaccurate applications. Permit determinations will usually be issued within 10-14 calendar days upon receipt of complete and accurate applications.

### FOR FURTHER INFORMATION

Questions about this permitting process may be directed to Niskayuna Building Department at 518-386-4522.

### DISCLAIMER

This permit contains a general reference to the NEC or electrical code used in the jurisdiction. All work and installed equipment will comply with the requirements of the NEC or the electrical code used in the jurisdiction. The jurisdiction maintains the authority/responsibility to conduct any inspections deemed necessary to protect public safety. The charging station installer shall also be responsible for notifying or coordinating any work with the utility company where needed.

## PROPERTY OWNER

Property Owner's First Name	Last Name	Title	
Property Address			Zoning
City		State	Zip
Section	Block	Lot Number	

## EXISTING USE

Single Family       2-4 Family       Commercial       Other

## SAFETY FEATURES DESCRIPTION

What type of safety features are built into the EVSE being installed (automatic-shut off, bollard protection, etc) in case of an accident or collision with the unit? Please describe in detail and include any necessary diagrams the EVSE manufacture may be able to provide.

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## ADDITIONAL INFORMATION

Is there any other information you would like to provide regarding the installation, maintenance or usage of your EVSE unit?

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## EVSE INSTALLATION CONTRACTOR & ELECTRICIAN

Contractor Business Name			
Contractor Business Address	City	State	Zip
Contractor Contact Name		Phone Number	
Contractor License Number(s)		Contractor Email	
Electrician Business Name			
Electrician Business Address	City	State	Zip
Electrician Contact Name		Phone Number	
Electrician License Number(s)		Electrician Email	

## SIGNATURES

### Certification Statement:

I, \_\_\_\_\_, hereby certify that the electrical work described on this permit application shall be installed in compliance with the conditions in this permit, NFPA 70, National Electrical Code®, Article 625, or applicable electrical code currently adopted and enforced within the Town of Niskayuna.

Furthermore, all associated work with circuits, electrical service and meters shall be completed in compliance with NFPA 70, National Electrical Code®, or applicable electrical code currently adopted and enforced within the Town of Niskayuna.

By agreeing to the above requirements, the licensee or owner shall be permitted to install and operate the charging station. The licensee also insures that appropriate load calculations have been done to insure that the residence has adequate electrical capacity to support electric vehicle charging equipment.

*Existing circuits provided for garages may supply other loads and may not have sufficient capacity for electric vehicle charging equipment. In some older installations the residential electrical service may not have sufficient capacity to supply electric vehicle charging equipment. Capacity problems are likely to be encountered on 60 ampere services or on 100 ampere services with multiple 240 volt loads. In such cases load calculations must be performed to insure adequate capacity.*

**Both the homeowner and the Prime Installer must sign below to affirm that all answers are correct and that this permit meets all the conditions and requirements of the NYS Unified EVSE Permit.**

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Property Owner's Signature

Date

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EVSE Installation Company Representative Signature

Date



## TOWN OF NISKAYUNA

# NY State Unified EVSE Permit Application SUPPLEMENTAL INSTRUCTIONS

The information below is published to guide applicants through the NYS Unified Electric Vehicle Supply Equipment (EVSE) Permit Application process and system installations. This supplement provides information about the requirements for plan review, required fees, and inspections.

### PERMITS AND APPROVALS REQUIRED

The following permits are required *prior* to installation of an EVSE system:

- a) Unified EVSE Permit
- b) Town of Niskayuna Building and Zoning Permit

Planning review is not required for EVSE installations of this size.

Fire Department approval is not required for EVSE installations of this size.

### SUBMITTAL REQUIREMENTS

In order to submit a complete permit application for a new EVSE system, the applicant must include:

- a) A Completed NY State Unified EVSE Permit Application form which includes confirmed eligibility for the Unified EVSE Permitting process (pages 1 & 2 of this document).
- b) A Completed Town of Niskayuna Building and Zoning Permit Application.
- c) Construction Documents, with listed attachments. Construction Documents must be stamped and signed by a New York State Registered Architect or New York State Licensed Professional Engineer.

The Town of Niskayuna, through adopting the Unified EVSE Permitting process, requires contractors to provide construction documents, such as the examples included in these supplemental instructions. Should the applicant wish to submit Construction Documents in another format, ensure that the submittal includes the following information:

- Plot plan of the property and house clearly showing the location of the EVSE installation.
- A schematic drawing to be drawn out by the applicant of individual who will be installing the EVSE, indicating the actual location of wiring from the power pole to the charging station.
- Identify which code needs to be complied with depending on whether a branch circuit and meter or a hard-wired charging station is being installed. Appendix C, Code Compliance, is a guideline the following specific elements of electric vehicle charging station safety:
  - Listing and Labeling Requirements
  - Wiring Methods
  - Breakaway Requirements
  - Over-current Protection
  - Indoor Siting
  - Outdoor Siting

The Building Inspector has the right to request additional information necessary to review the application.

### PLAN REVIEW

Permit applications can be submitted to the Town of Niskayuna Building Department *in person* at One Niskayuna Circle, Niskayuna NY 12309 or *via email* to [building@niskayuna.org](mailto:building@niskayuna.org)

### FEES

Residential Permit Fees are a minimum of \$50 for projects valuing \$1000 or less. For projects over \$1000 in value, the permit fee is \$50 for the first \$1000 value and \$10 for every \$1000 of additional value (for example a \$9000 installation would be \$50 + \$80, or a \$130 permit fee).

Commercial Permit Fees are a minimum of \$100 for projects valuing \$1000 or less. For projects over \$1000 in value, the permit fee is \$100 for the first \$1000 value and \$10 for every \$1000 of additional value (for example a \$9000 installation would be \$100 + \$80, or a \$180 permit fee).

The Building Department usually calculates the fee after the permit has been submitted and collects payment once the permit is approved and ready to be issued.

## INSPECTIONS

Once all permits to construct the EVSE installation have been issued and the system has been installed, it must be inspected before final approval is granted and the Building Permit can be closed.

On-site inspections can be scheduled by contacting the Town of Niskayuna Building Department by telephone at 518-386-4522. Inspection requests received during normal business hours are typically scheduled for the same or next business day. If a next business day inspection is not available, inspections will be scheduled within a five-day window.

**A third party Electrical Inspection must be performed prior to scheduling a final inspection with the Town of Niskayuna.** The results of the Electrical Inspection must be sent to the Town of Niskayuna Building Department ([building@niskayuna.org](mailto:building@niskayuna.org)) or the Building Permit will not be closed out and renewal fees may apply.

In order to receive final approval, the following inspections are required:

1. Rough Framing/ Electrical

During a rough framing/electrical inspection (if required), the applicant must demonstrate that the work in progress complies with relevant codes and standards. The purpose of the rough inspection is to allow the inspector to view aspects of the system that may be concealed once the system is complete, such as:

- Framing requirements for support of EVSE system (if applicable)
- Draft stopping and Fire blocking of penetrations
- Wiring concealed by new and existing construction.
- Portions of the system that are contained in trenches or foundations that will be buried upon completion of the system.

The Town of Niskayuna will perform a rough framing inspection, if required. The Town does not perform Electrical Inspections. It is the responsibility of the applicant to contact a third party Electrical (Underwriter) Inspector for a Rough Electrical Inspection before the components are concealed or buried and to provide safe access (including necessary climbing and fall arrest equipment) to the inspector.

2. Final Electrical and Final Building Department Inspections

The applicant must contact a third party Electrical (Underwriter) Inspector for a final electrical inspection and the Town of Niskayuna Building Department when ready for a final building inspection. During these inspections, the inspectors will review the complete installation to ensure compliance with codes and standards, as well as confirming that the installation matches the records included with the permit application. The applicant must have the following materials ready at the time of final building inspection, and make them available to the inspector:

- Final Electrical Inspection Report
- Copies of as-built drawings and equipment specifications, if different than the materials provided with the application.
- Photographs of key hard to access equipment.

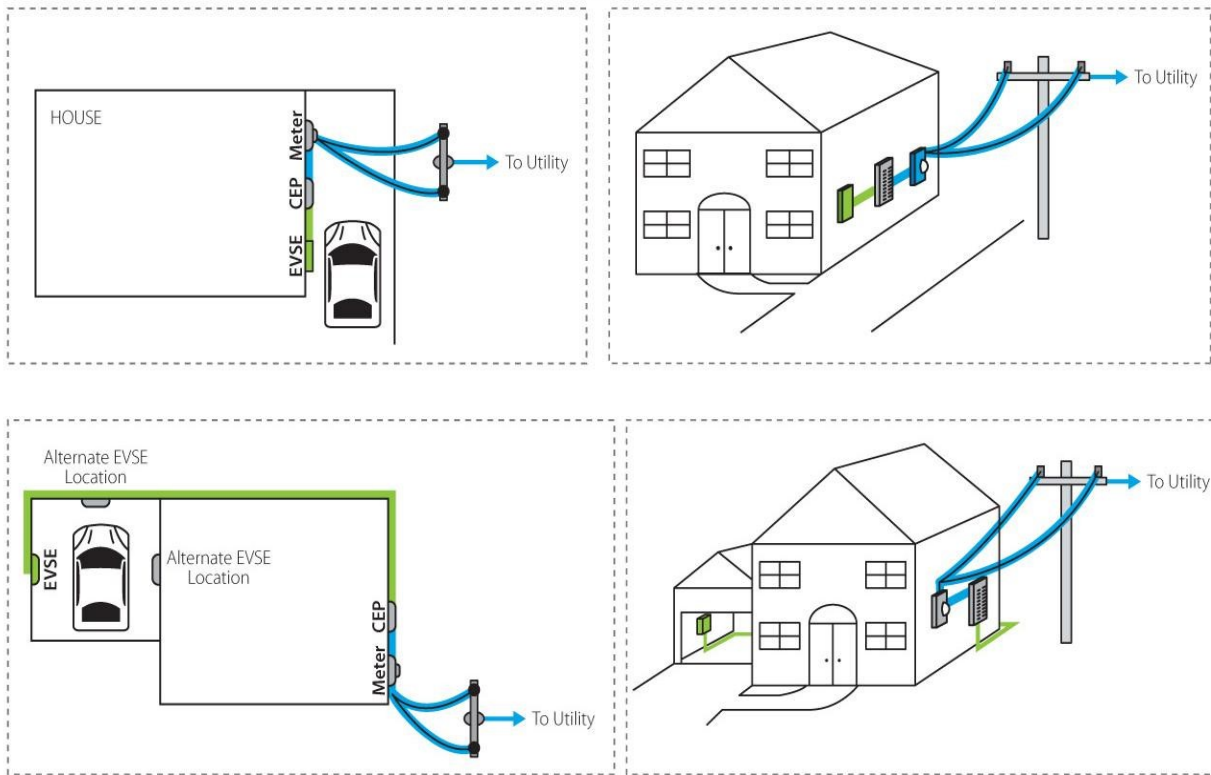
## DEPARTMENTAL CONTACT INFORMATION

For additional information regarding this permit process, please consult our departmental website at <http://www.niskayuna.org/building-inspector/pages/downloadable-forms> or contact the Town of Niskayuna Building Department at 518-386-4522.



APPENDIX A  
SAMPLE APPLICATION SKETCH

*Typical Electric Vehicle Charging Equipment Installation*



Above are two examples describing different scenarios in which the EVSE unit could be connected to utility electric. Scenario (1) describes a unit that has been attached to the outside of the home in which the vehicle will be plugged in outside. Scenario (2) describes a unit that has been installed inside a garage for indoor usage. It is helpful to use indicators such as the green and blue cords (above) to best describe the scenario that describes the intended use of the EVSE unit.

APPENDIX B  
APPLICATION SKETCH

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You may use the space provided below to make an actual schematic drawing of the home if one has not already been designed. Submit with your application. Be as detailed as possible. The more information the applicant provides the better.

**Overhead View:**

**Description:**

**Sketch:**



**Cross Section View:**

**Description:**

**Sketch:**



APPENDIX C  
CODE COMPLIANCE

The requirements for wiring the charging station below are taken directly out of the 2011 edition of the National Electrical Code® (NEC) ® NFPA 70, Article 625 Electric Vehicle Charging System. *The 2014 NEC has since been adopted in the State of New York.* This article does not provide all of the information necessary for the installation of an electric vehicle charging equipment. Please refer to the current edition of the electrical code adopted by the local jurisdiction for additional installation requirements. Reference to the most current NEC may be made at [www.nfpa.org/70](http://www.nfpa.org/70).

NEC® Chapter or Article	DESCRIPTION
Chapter 2 and 3	<p><b>Branch Circuit</b> A new electrical box added on a branch circuit shall comply with NFPA 70 National Electrical Code® Chapter 2 Wiring and Protection and Chapter 3 Wiring Methods and Materials and all administrative requirements of the NEC or the electrical code in effect in the jurisdiction</p>
625.4	<p><b>VOLTAGES</b> Unless other Voltages are specified, the nominal ac system voltages of 120, 120/240, 208Y/120, 240, 480Y/277, 480, 600Y/347, and 600 Volts shall be used to supply equipment</p>
625.5	<p><b>LISTED OR LABELED</b> All electrical materials, devices, fittings, and associated equipment shall be listed or labeled.</p>

625.9	<p><b>WIRING METHODS</b> The electric vehicle coupler shall comply with 625.9(A) through (F).</p> <p>(A) Polarization. The electric vehicle coupler shall be polarized unless part of a system identified and listed as suitable for the purpose.</p> <p>(B) Non-interchangeability. The electric vehicle coupler shall have a configuration that is non-interchangeable with wiring devices in other electrical systems. Non-grounding-type electric vehicle couplers shall not be interchangeable with grounding-type electric vehicle couplers.</p> <p>(C) Construction and Installation. The electric vehicle coupler shall be constructed and installed so as to guard against inadvertent contact by persons with parts made live from the electric vehicle supply equipment or the electric vehicle battery.</p> <p>(D) Unintentional Disconnection. The electric vehicle coupler shall be provided with a positive means to prevent unintentional disconnection.</p> <p>(E) Grounding Pole. The electric vehicle coupler shall be provided with a grounding pole, unless part of a system identified and listed as suitable for the purpose in accordance with Article 250.</p> <p>(F) Grounding Pole Requirements. If a grounding pole is provided, the electric vehicle coupler shall be so designed that the grounding pole connection is the first to make and the last to break contact.</p>
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625.13	<p><b>ELECTRIC VEHICLE SUPPLY EQUIPMENT</b></p> <p>Electric vehicle supply equipment rated at 125 volts, single phase, 15 or 20 amperes or part of a system identified and listed as suitable for the purpose and meeting the requirements of 625.18, 625.19, and 625.29 shall be permitted to be cord-and plug-connected. All other electric vehicle supply equipment shall be permanently connected and fastened in place. This equipment shall have no exposed live parts.</p>
625.14	<p><b>Rating</b></p> <p>Electric vehicle supply equipment shall have sufficient rating to supply the load served. For the purposes of this article, electric vehicle charging loads shall be considered to be continuous loads.</p>
625.15	<p><b>Markings</b></p> <p>The electric vehicle supply equipment shall comply with 625.15(A) through (C).</p> <p>(A) General. All electric vehicle supply equipment shall be marked by the manufacturer as follows: FOR USE WITH ELECTRIC VEHICLES</p> <p>(B) Ventilation Not Required. Where marking is required by 625.29(C), the electric vehicle supply equipment shall be clearly marked by the manufacturer as follows: VENTILATION NOT REQUIRED The marking shall be located so as to be clearly visible after installation.</p> <p>(C) Ventilation Required. Where marking is required by 625.29(D), the electric vehicle supply equipment shall be clearly marked by the manufacturer, "Ventilation Required." The marking shall be located so as to be clearly visible after installation.</p>
625.16	<p><b>Means of Coupling</b></p> <p>The means of coupling to the electric vehicle shall be either conductive or inductive. Attachment plugs, electric vehicle connectors, and electric vehicle inlets shall be listed or labeled for the purpose.</p>
625.17	<p><b>Cable</b></p> <p>The electric vehicle supply equipment cable shall be Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Article 400 and Table 400.4. Ampacities shall be as specified in Table 400.5(A)(1) for 10 AWG and smaller, and in Table 400.5(A)(2) for 8 AWG and larger. The overall length of the cable shall not exceed 7.5 m (25 ft) unless equipped with a cable management system that is listed as suitable for the purpose. Other cable types and assemblies listed as being suitable for the purpose, including optional hybrid communications, signal, and composite optical fiber cables, shall be permitted.</p>
625.18	<p><b>Interlock</b></p> <p>Electric vehicle supply equipment shall be provided with an interlock that de-energizes the electric vehicle connector and its cable whenever the electrical connector is uncoupled from the electric vehicle. An interlock shall not be required for portable cord-and-plug-connected electric vehicle supply equipment intended for connection to receptacle outlets rated at 125 volts, single phase, 15 and 20 amperes.</p>

625.19	<p><b>Automatic De-Energization of Cable</b></p> <p>The electric vehicle supply equipment or the cable-connector combination of the equipment shall be provided with an automatic means to de-energize the cable conductors and electric vehicle connector upon exposure to strain that could result in either cable rupture or separation of the cable from the electric connector and exposure of live parts. Automatic means to de-energize the cable conductors and electric vehicle connector shall not be required for portable cord-and-plug-connected electric vehicle supply equipment intended for connection to receptacle outlets rated at 125 volts, single phase, 15 and 20 amperes.</p>
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625.21	<p><b>Over-current Protection</b></p> <p>Over-current protection for feeders and branch circuits supplying electric vehicle supply equipment shall be sized for continuous duty and shall have a rating of not less than 125 % of the maximum load of the electric vehicle supply equipment. Where non-continuous loads are supplied from the same feeder or branch circuit, the over-current device shall have a rating of not less than the sum of the non-continuous loads plus 125 percent of the continuous loads.</p>
625.22	<p><b>Personnel Protection System</b></p> <p>The electric vehicle supply equipment shall have a listed system of protection against electric shock of personnel. The personnel protection system shall be composed of listed personnel protection devices and constructional features. Where cord-and-plug-connected electric vehicle supply equipment is used, the interrupting device of a listed personnel protection system shall be provided and shall be an integral part of the attachment plug or shall be located in the power supply cable not more than 300 mm (12 in.) from the attachment plug.</p>
625.23	<p><b>Disconnecting Means</b></p> <p>For electric vehicle supply equipment rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. The disconnecting means shall be capable of being locked in the open position. The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch or circuit breaker used as the disconnecting means and shall remain in place with or without the lock installed. Portable means for adding a lock to the switch or circuit breaker shall not be permitted.</p>
625.25	<p><b>Loss of Primary Source</b></p> <p>Means shall be provided such that, upon loss of voltage from the utility or other electrical system(s), energy cannot be back fed through the electric vehicle and the supply equipment to the premises wiring system unless permitted by 625.26.</p>
625.26	<p><b>Interactive Systems</b></p> <p>Electric vehicle supply equipment and other parts of a system, either on-board or off-board the vehicle, that are identified for and intended to be interconnected to a vehicle and also serve as an optional standby system or an electric power production source or provide for bi-directional power feed shall be listed as suitable for</p>

	<p>that purpose. When used as an optional standby system, the requirements of Article 702 shall apply, and when used as an electric power production source, the requirements of Article 705 shall apply.</p>
625.28	<p><b>Hazardous (Classified) Locations</b> Where electric vehicle supply equipment or wiring is installed in a hazardous (classified) location, the requirements of Articles 500 through 516 shall apply.</p>
625.29	<p><b>Indoor Sites</b> Indoor sites shall include, but not be limited to, integral, attached, and detached residential garages; enclosed and underground parking structures; repair and nonrepair commercial garages; and agricultural buildings.</p> <p>(A) Location. The electric vehicle supply equipment shall be located to permit direct connection to the electric vehicle. (B) Height. Unless specifically listed for the purpose and location, the coupling means of the electric vehicle supply equipment shall be stored or located at a height of not less than 450 mm (18 in.) and not more than 1.2 m (4 ft) above the floor level.</p> <p>(C) Ventilation Not Required. Where electric vehicle nonvented storage batteries are used or where the electric vehicle supply equipment is listed or labeled as suitable for charging electric vehicles indoors without ventilation and marked in accordance with 625.15(B), mechanical ventilation shall not be required.</p> <p>(D) Ventilation Required. Where the electric vehicle supply equipment is listed or labeled as suitable for charging electric vehicles that require ventilation for indoor charging, and is marked in accordance with 625.15(C), mechanical ventilation, such as a fan, shall be provided. The ventilation shall include both supply and exhaust equipment and shall be permanently installed and located to intake from, and vent directly to, the outdoors. Positive pressure ventilation systems shall be permitted only in buildings or areas that have been specifically designed and approved for that application. Mechanical ventilation requirements shall be determined by one of the methods specified in 625.29(D)(1) through (D)(4).</p> <p>(1) Table Values. For supply voltages and currents specified in Table 625.29(D)(1) or Table 625.29(D)(2), the minimum ventilation requirements shall be as specified in Table 625.29(D)(1) or Table 625.29(D)(2) for each of the total number of electric vehicles that can be charged at one time.</p> <p>(2) Other Values. For supply voltages and currents other than specified in Table 625.29(D)(1) or Table 625.29(D)(2), the minimum ventilation requirements shall be calculated by means of general formulas stated in article 625.39(D)(2).</p> <p>(3) Engineered Systems. For an electric vehicle supply equipment ventilation system designed by a person qualified to perform such calculations as an integral part of a building's total ventilation system, the minimum ventilation requirements shall be permitted to be determined in accordance with calculations specified in the engineering study.</p> <p>(4) Supply Circuits. The supply circuit to the mechanical</p>

	<p>ventilation equipment shall be electrically interlocked with the electric vehicle supply equipment and shall remain energized during the entire electric vehicle charging cycle. Electric vehicle supply equipment shall be marked in accordance with 625.15. Electric vehicle supply equipment receptacles rated at 125 volts, single phase, 15 and 20 amperes shall be marked in accordance with 625.15(C) and shall be switched, and the mechanical ventilation system shall be electrically interlocked through the switch supply power to the receptacle.</p>
625.30	<p><b>Outdoor Sites</b> Outdoor sites shall include but not be limited to residential carports and driveways, curbside, open parking structures, parking lots, and commercial charging facilities.</p> <p>(A) Location. The electric vehicle supply equipment shall be located to permit direct connection to the electric vehicle.</p> <p>(B) Height. Unless specifically listed for the purpose and location, the coupling means of electric vehicle supply equipment shall be stored or located at a height of not less than 600 mm (24 in.) and not more than 1.2 m (4 ft) above the parking surface.</p>