



ELECTRIC VEHICLE CHARGING STATIONS

Electric vehicle charging stations supply energy for the recharging of electric vehicles (EV), such as plug-in electric vehicles, including electric cars, neighborhood electric vehicles, and plug-in hybrids. Typically, higher speed charging facilities are desired at curbside locations to avoid long term parking at curbside locations.

DESIGN

- All curbside electric vehicle charging stations should meet the Society of Automotive Engineers (SAE) Standard J1772, with alternating current (AC) Level 1 or Level 2 charging stations.
- Charging stations should provide a SAE J1772-2009 connector as the standard method for fueling connection.
- Charging stations should be placed near utility feeder lines, clear from traffic, and away from flood zones.
- Charging stations should be installed directly on the sidewalk a minimum of 18" from the curb. Charging stations, unlike parking meters, are best located at the center of each parking space to maximize access for different positioning of EV charging ports.
- The charging station should be protected by bollards or other measures to prevent damage or abuse.
- Signs should designate EV-only parking, instructions for use, and time limits for charging.

- On-street EV charging stations should have a cord management system to ensure functionality in inclement weather and prevent any tripping or cord tangling issues.



Increasing the number and location of electric vehicle charging stations makes it easier for people to use these types of vehicles and reduce gasoline use.

SPECIAL CONSIDERATIONS

- EV hardware and software should be periodically tested and repaired or replaced. Stations should be connected to an online network in order to allow for software maintenance and user inquiries to be conducted remotely by an operator.
- Charging stations that provide ports for multiple vehicles may require additional or enhanced electrical service in coordination with the utility company.

OPERATIONS AND MAINTENANCE

- An operations and maintenance agreement can be put in place with private vendors to provide service to the charging station.
- Special maintenance planning is generally required and should be part of any EV curbside charging program.