

SECTION 26 27 29  
ELECTRIC VEHICLE CHARGER  
Design Standard

## PART 1 GENERAL

### 1.1 PURPOSE

This design standard has the purpose of creating a consistent application of overcurrent protective devices throughout the San Mateo County Community College District therefore achieving a standard of maintenance, reliability and quality throughout all renovation and new building projects.

## PART 2 PRODUCTS

### A. Electric Vehicle Supply Equipment (EVSE).

1. Include Level 2 charging stations for 5% of the total parking spaces, unless otherwise noted in the owner's project requirements (OPR).
2. Provisions shall include connections to new or existing panels with spare capacity. Each Level 2 charging port requires a dedicated single-phase electrical circuit (32A at 208/240V) with 40A circuit breaker at the electrical panel.
3. The required service panel breaker for each Level 2 charging station shall be a 40A double pole (non-GFCI type) on a dedicated circuit (x 2 for dual-port EV charging stations) at 208V.
4. Provide dedicated branch circuit panel board to supply chargers.

### A. Electric Vehicle Supply Equipment (EVSE)

1. SMCCCD Standard EVSE is Chargepoint CT 4021 unless otherwise specified
2. Provide installation, maintenance and operations instructions to SMCCCD
3. Identify and verify EVSE installation location and provide associated SLD, structural and other planning documentation
4. Each EVSE shall be wired directly to a unique branch circuit unless otherwise specified
5. Multiplexing EVSE equipment is permitted with SMCCCD approval (must include all J1772 standards, cables, cable management systems, and protocols).
6. Branch circuit feeders must be sized to 125% of EVSE nameplate current
7. EVSE display screens shall be oriented out of direct sun exposure (ideally north east) and be capable of displaying pricing and other SMCCCD programmed messages.
  - a. Locations to be determined by SMCCCD in collaboration with the designer of record.
8. Provide systems and services to manage stations remotely through a web interface on a standard web browser.
9. Provide a minimum 1 year warranty for parts and labor.

### B. EVSE Communications and Networking

1. Each charging station shall connect with the host network through the cell phone network.

### C. Accessibility

1. Electrical Vehicle Charging Station (EVCS) shall be ADA compliant. See State of California's Division of the State Architect "Interim Disabled Access Guidelines for Electric Vehicle Charging Station" (Policy # 97-03) for Reference.

2.1 APPROVED MANUFACTURERS

- D. Chargepoint 4021 EVSE

PART 3 EXECUTION

3.1 SUBSTITUTIONS

- A. Substitutions may be permitted if performance and quality equivalency can be proven by providing evidence. Substitutions will also need to match aesthetic look of existing bollards on campus. Substitutions are to be proposed to the District for review and approval.

3.2 ASSOCIATED DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS

- A. Division 26 Design Standards and Construction Specifications
- B. 26 00 00 Basic Electrical Requirements

END OF SECTION