



50.5.1 Contractor Supplied Materials

Following specifications 651.2 and 670.2, all products supplied by the contractor should conform to specification requirements on the department's approved product list. For materials not on the approved list, refer to Standard Specification 670.3.3.1.

50.5.2 Communication Requirements

As discussed in section three of this chapter (55.3), communications requirements can vary between each different type of ITS equipment. The communication mediums selected can include spread spectrum radio, Ethernet over fiber (with an Ethernet to serial converter), dedicated twisted pair copper, leased telephone circuit, wireless communications, among others. Contact the State Traffic Operations Center to discuss specific communication requirements.

50.5.3 Power Requirements

A 100 Amp, 120/240 volt, single phase, three wire underground electrical service is required for most electrical service installations. Typically, two controller cabinets can be powered by a single 100-amp service. The electrical service will be furnished and installed by the local power company up to a demarcation point, which consists of an electrical service (meter) pedestal. The electrical service must conform to the requirements of the local power company. The location of the electrical service must receive approval from the utility company. The electrical service will include two 50-amp circuit breakers rated at 22,000 AIC. The requirements for power cable between the electrical service and controller cabinet can be found under the Cable Routing section of this chapter.

At locations that require a remotely located electrical service, a 100 Amp outside rated breaker box with space for 6 circuits, but no main breaker, will be attached to the side of the cabinet. Also, a 50 Amp single circuit breaker rated at 22,000 AIC will be installed within the breaker box to serve as a local electrical service disconnect point.

50.5.4 Communications System Construction Standards

Construction details, Standard Special Provisions, and Special Provisions can be found in Appendix 70 of this manual.