

Design Standard

Hangers and Supports for Electrical Systems

Purpose:

This design standard has the purpose of creating a consistent application for the installation of hangers and supports for electrical systems throughout the East Side Union High School District, therefore achieving a standard of quality for maintenance, reliability, and operational efficiency throughout all renovation and new building projects.

Design Standard:

Supporting devices shall have a safety factor of 4 required for every fastening device or support for electrical equipment installed. Supporting devices are to withstand four times the weight of equipment it supports. Bracing shall comply with Seismic Zone 4 requirements.

- Provide electrical equipment supports.
- Verify mounting height of luminaires or items prior to installation of supporting devices when heights are not detailed.
- Install vertical support members for equipment and luminaires, straight and parallel to building walls.
- Provide independent supports to structural member for electrical luminaires, materials, or equipment installed in or on ceiling, walls or in void spaces or over furred or suspended ceilings.
- Do not use other trade's fastening devices as supporting means for electrical equipment materials or fixtures.
- Do not use supports or fastening devices to support more than one particular item.
- Support conduits within 18 inches of outlets, boxes, panels, cabinets and deflections.
- Maximum distance between supports not to exceed 8 foot spacing.
- Securely suspend junction boxes, pull boxes or other conduit terminating housings located above suspended ceiling from the floor above or roof structure to prevent sagging and swaying.
- Provide seismic bracing per CBC requirements.
- Inadequately braced equipment altered as a part of a renovation shall be properly supported per this standard and CBC requirements.

Approved Manufacturers:

Not applicable

Substitutes Allowed:

Not applicable

Associated Design Standards and Construction Specifications:

- Division 22 Plumbing Design Standards
- Division 23 HVAC Design Standards
- Division 25 Integrated Automation Design Standards
- Division 26 Electrical Design Standards
- Division 27 Communications Design Standards
- Division 28 Electronic Safety and Security Design Standards

End of Document