

**FINAL EXPRESS TERMS
OF PROPOSED ELECTRICAL STANDARDS
OF THE DIVISION OF THE STATE ARCHITECT -- ACCESS COMPLIANCE**

**REGARDING THE ADOPTION BY REFERENCE OF THE
2005 EDITION OF THE NATIONAL ELECTRICAL CODE
INTO THE CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 3**

The Division of the State Architect/Access Compliance (DSA/AC) proposes to adopt the 2005 edition of the National Electrical (NEC) for codification and effectiveness into the 2007 edition of the California Electrical Code (CEC) as presented on the following pages, including any necessary amendments. DSA/AC further proposes to:

- Repeal the 2004 edition of the California Electrical Code;
- Repeal amendments to the model codes that are no longer necessary, repeal building standards that are not addressed by a model code;
- Relocate or codify existing adopted and necessary amendments to the model electrical code into the format of the model building code proposed for adoption, the action of which has no regulatory effect; adopt new necessary amendments to the model code proposed for adoption;
- Adopt new building standards that are not addressed by the model code proposed for adoption.

Legend for Express Terms:

1. Existing California amendments or code language being modified: All such language appears in *italics*, modified language is underlined or in ~~strikeout~~.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.
4. Notation: Authority and Reference citations are provided at the end of each chapter.

Article 89 – ADMINISTRATION

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopt entire State article without amendments	
Adopt entire State article as amended (amendments listed below)	
Adopt only those sections which are listed below	X
89.7 #5 with FPN CA	X

**Article 89
ADMINISTRATION**

Note: Article 89 has no corresponding Article in the NEC.

~~89.1 Title. The provisions contained in this Code shall be known as the "California Electrical Code," a portion of the "California Building Standards Code," as defined in the "California Building Standards Law" commencing with Section 18901 of the Health and Safety Code, and may be cited and referred to as the "California Electrical Code." The unqualified words "This Code" as used herein, refer only to the California Electrical Code, and do not include any other portions of the California Building Standards Code. These provisions may also be cited as "CEC." or "Part 3" within other parts of the California Building Standards Code (Title 24).~~

~~89.2 Purpose. The purpose of this Code is to provide minimum standards to safeguard life or limb, health, property, and public welfare, and to protect against hazards that may arise from the use of electricity by regulating and controlling the design, construction, installation, quality of materials, location, and operation of electrical equipment, wiring, and systems.~~

~~[For DSA/AC] The purpose of this code is to ensure that barrier-free design is incorporated in all buildings, facilities, site work and other developments to which this code applies and to ensure that they are accessible to and usable by persons with disabilities.~~

~~89.3 Scope. The provisions of the Code and the building standards contained herein, including those standards adopted by reference without amendments, where specifically adopted by the listed agencies under their cited authority and enforced by the enforcing agency specified in Section 0897 89.7, shall apply to the construction, alteration, moving, demolition, repair, and use of all electrical equipment, wiring, and systems in or on any building or structure or outdoors on any premise or property; except such electrical equipment, wiring and systems which are expressly exempted by Section 89.4.~~

~~Section 17958.8. "Local ordinances or regulations governing alterations and repair of existing buildings shall permit the replacement, retention, and extension of original materials and the use of original methods of construction as long as the hotel, lodging house, motel, apartment house, or dwelling, or portions thereof, or building and structure accessory thereto, 2001 California Electric Code complies with the provisions published in the State Building Standards Code and the other rules and regulations of the department or alternative local standards adopted pursuant to Section 17920.7 and does not become or continue to be a substandard building."~~

~~Section 17958.9. "Local ordinances or regulations governing the moving of apartment houses and dwellings shall, after July 1, 1978, permit the retention of existing materials and methods of construction so long as the apartment house or dwelling complies with the building standards for foundation applicable to new construction, and does not become or continue to be a substandard building"~~

~~89.4 Exempted from this Code. This Code does not cover:~~

~~(A) Installations in ships, watercraft other than floating dwelling units, railway rolling stock, aircraft, automotive vehicles, commercial coaches, mobile homes, and recreational vehicles.~~

~~(B) Installations underground in mines, mine shafts, and tunnels.~~

~~(C) Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes.~~

~~(D) Installation of communication equipment under the exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations.~~

~~(E) Installations under the exclusive control of electrical utilities for the purpose of communication or metering; or for the generation, control, transformation, transmission, and distribution of electrical energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.~~

~~Exception to (D) and (E): In places of employment, the following shall apply: installations of conductors, equipment, and associated enclosures subject to the jurisdiction of the California Public Utilities Commission, that are owned, operated, and maintained by an electric, communications, or electric railway utility, but not including conduit, vaults, and other like enclosures containing conductors and equipment of such a utility when located indoors or on premises not used exclusively for utility purposes, but do not apply to the utility's conductors and equipment therein.~~

~~(F) Installations on highways or bridges.~~

~~89.5 Non-Building Standards, Orders and Regulations~~

~~(A) Requirements contained in the National Electrical Code (NEC), or in any other referenced code, document, or standard, which are not building standards as defined in Section 18912 of the Health and Safety Code, shall not be construed as a part of the provisions of this Code.~~

~~(B) For the applicability of regulations, safety, and other orders, and standards which relate to the administration, enforcement, maintenance, operation, and similar non-building standards, see other titles of the California Code of Regulations.~~

89.6 Order of Precedence and Use

~~(A) In the event of any difference between the provisions of this Code and the National Electrical Code (NEC), or between this Code and the provisions of any other referenced code, document, or standard, the text of this Code shall govern. Where a specific provision varies from a general provision, the specific provisions shall apply.~~

~~(B) If a section of this Code makes a cross-reference to another section or table in the National Electrical Code (NEC), such cross-referencing shall be interpreted to mean that which is shown in the NEC unless the referenced section or table has been amended or modified in this Code for the particular enforcing agency.~~

~~(C) If a section in the National Electrical Code (NEC) makes a cross-reference to another section or table in the NEC, such cross-referencing shall be interpreted to mean that which is shown in the NEC unless the referenced section or table has been amended or modified in this Code or the particular enforcing agency.~~

~~(D) When adopted by a State agency, and approved by the Commission, the text of amended provisions contained in this Code shall take precedence over the corresponding provisions of the National Electrical Code (NEC).~~

89.6.1 Local Variances.

~~For clarification purposes, the applicable Health & Safety Code Section 17958.5 is repeated here and reads as follows:~~

~~Section 17958.5. "Except as provided in Section 17922.6 to adopting the ordinances or regulations pursuant to Section 17958, a city or county may make such changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and the other regulations adopted pursuant to Section 17922 as it determines, pursuant to the provisions of Section 17958.7, are reasonably necessary because of local climatic, geological, or topographical conditions.~~

~~"For purposes of this subdivision, a city and county may make reasonably necessary modifications to the requirements, adopted pursuant to Section 17922, contained in the provisions of the code and regulation on the basis of local conditions."~~

89.6.2 Findings, Filing, and Rejections of Local Variances

~~For clarification purposes, the applicable Health & Safety Code Section 17958.5 is repeated here and reads as follows:~~

~~Section 17958.7.~~

~~(a) "Except as provided in Section 17922.6, the governing body of a city or county, before making any modifications or changes pursuant to Section 17958.5, shall make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions. Such a finding shall be available as a public record. A copy of these findings, together with the modification or change expressly marked and identified to which each finding refers, shall be filed with the California Building Standards Commission. No modification or change shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission."~~

~~(b) "The California Building Standards Commission may reject a modification or change filed by the governing body of a city or county if no finding was submitted."~~

89.7 Application.

5. DSA/AC -- Division of the State Architect, /Access Compliance.

FPN: For applications listed in Section 109.1 of the California Building Code, regulated by the Division of the State Architect/Access Compliance see California Code of Regulations, Title 24, Part 2 (California Building Code), California Chapter 1 (General Code Provisions) under authority cited by Gov. Code §4450 and in reference cited by Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

~~General. To assure that barrier free design is incorporated in all buildings, facilities, site work, and other improvements to which this code applies; to assure that these improvements are accessible to and usable by physically disabled persons. Additions, alterations, and structural repairs in all buildings and facilities shall comply with these provisions for new buildings, except as otherwise provided and specified herein. The provisions of these regulations shall apply to any portable buildings leased or owned by a school district, and shall also apply to temporary and emergency buildings and facilities. In addition, to incorporate standards at least as restrictive as those~~

~~required by the federal government for barrier-free design under (1) Title III (Public Accommodations and Commercial Facilities), Subpart D (New Construction and Alteration) and Appendix A (Americans with Disabilities Act Accessibility Guidelines) (see 28 C.F.R. Part 36), and (2) Title II (Public Entities), Section 35.151 (New Construction and Alterations) (see 28 C.F.R., Part 35) both from the Americans with Disabilities Act of 1990, and (3) under the Fair Housing Amendments of 1988. Some of these regulations may be more stringent than state law in order to meet the federal requirement.~~

~~A. Application — Publicly Funded Buildings, Structures, Sidewalks, Curbs, and Related Facilities shall be accessible to and usable by persons with disabilities as follows:~~

~~Note: See Government Code, commencing with Section 4450.~~

~~(1) All buildings, structures, sidewalks, curbs, and related facilities constructed in the state by the use of State, county, or municipal funds, or the funds of any political subdivision of the State.~~

~~(2) All buildings, structures, and facilities, that are leased, rented, contracted, sublot, or hired by any municipal, county, or State division of government or by a special district.~~

~~(3) All publicly funded buildings used for congregate residences or for one- or two-family dwelling unit purposes shall conform to the appropriate provisions applicable to living accommodations.~~

~~(4) All existing publicly funded buildings and facilities when alterations, structural repairs or additions are made to such buildings or facilities. For detailed requirements on existing buildings, see California Code of Regulations, Title 24, Part 2, Chapter 11B, Division IV.~~

~~(5) With respect to buildings, structures, sidewalks, curbs and related facilities not requiring a building permit, building standards published in the California Building Standards Code relating to access for persons with disabilities and other regulations adopted pursuant to Government Code Section 4450, and in effect at the time construction is commenced, shall be applicable.~~

~~B. Application. All Privately Funded Public Accommodations as defined, and commercial facilities, as defined, shall be accessible to persons with disabilities as follows:~~

~~Note: See Health and Safety Code, commencing with Section 19952.~~

~~Exception: See California Code of Regulations, Title 24, Part 2, Section 1103B.1, for types of privately funded multistory buildings, which do not require installation of an elevator or provide access above and below the first floor.~~

~~(1) Any building, structure, facility, complex, or improved area or portion thereof which is used by the general public;~~

~~(2) Any sanitary facilities which are made available for the public, clients, or employees in such accommodations or facilities.~~

~~(3) Any curb or sidewalk intended for public use that is constructed in this State with private funds.~~

~~(4) All existing privately funded public accommodations when alterations, structural repairs, or additions are made to such public accommodations as set forth in the California Code of Regulations, Title 24, Part 2, Chapter 11B.~~

~~C. Application. Public housing and private housing available for public use.~~

~~Note: See Government Code Sections 4450 and 12955.1(d).~~

~~D. Enforcing Agency:~~

~~(1) The Director of General Services where State funds are utilized for any project or where funds of counties, municipalities, or other political subdivisions are utilized for the construction of elementary, secondary, or community college projects.~~

~~(2) The governing bodies thereof where funds of counties, municipalities, or other political subdivisions are utilized except as otherwise provided above.~~

~~(3) The building department of every city, county, or city and county, within the territorial area of its city, county, or city and county, where private funds are utilized. "Building department" means the department, bureau, or officer charged with the enforcement of laws or ordinances regulating the erection or construction, or both the erection and construction, of buildings.~~

~~E. Special Conditions for Persons with Disabilities Requiring Appeals Action Ratification: Whenever reference is made in these regulations to this section, the findings and determinations required to be rendered by the local enforcing agency shall be subject to ratification through an appeals process.~~

~~F. Authority Cited — Government Code Section 4450 and Health and Safety Code 18949.1.~~

~~G. Reference — Government Code Sections 4450 through 4458 4460, 12955.1, and Health and Safety Code Sections 18949.1, 19952 through 19959.~~

Authority Cited-Gov. Code §4450.

Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

CHAPTER 4 -- EQUIPMENT FOR GENERAL USE

Article 404 – SWITCHES

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopt entire NEC article without amendments	
Adopt entire NEC article as amended (amendments listed below)	
Adopt only those sections which are listed below	X
404 with FPN CA	X

Article 404 Switches

FPN: For applications listed in Section 109.1 of the California Building Code, regulated by the Division of the State Architect/Access Compliance, for control and operating mechanisms see California Code of Regulations, Title 24, Part 2 (California Building Code), Section 1117B.6, item 5 (Electrical switches and receptacle outlets) # 5.1 (Electrical switches) under authority cited by Gov. Code §4450 and in reference cited by Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

~~I. Installation.~~

~~404.8 Accessibility and Grouping.~~

~~C) [For DSA/AC] Installation Height.~~

~~(3) [For DSA/AC] Where access for persons with disabilities is required by Article 89.7, the center of the grip of the operating handle of controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances or cooling, heating and ventilating equipment, shall be 48 inches (1219 mm) above the floor or working platform.~~

Authority Cited-Gov. Code §4450.

Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

Article 406 -- RECEPTACLE, CORD CONNECTORS, AND ATTACHMENT PLUGS (CAPS)

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopt entire NEC article without amendments	
Adopt entire NEC article as amended (amendments listed below)	
Adopt only those sections which are listed below	X
406 with FPN CA	X

Article 406
Receptacle, Cord Connectors, and Attachment Plugs (Caps)

FPN: For applications listed in Section 109.1 of the California Building Code, regulated by the Division of the State Architect/Access Compliance, for control and operating mechanisms see California Code of Regulations, Title 24, Part 2 (California Building Code), Section 1117B.6, item 5 (Electrical switches and receptacle outlets), # 5.2 (Electrical receptacle outlets) under authority cited by Gov. Code §4450 and in reference cited by Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

406.3 General Installation Requirements.

(G) Installation Heights.

~~(1) [For DSA/AC with exceptions, 1, 2, 3 and 4] Where access for persons with disabilities is required by Article 89.7, the center of electrical receptacle outlets on branch circuits of 30 amperes or less shall be installed not more than 48 inches nor less than 15 inches above the floor or working platform.~~

~~Exception No. 1: Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.~~

~~Exception No. 2: Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.~~

~~Exception No. 3: Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.~~

~~Exception No. 4: This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.~~

Authority Cited-Gov. Code §4450.

Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

CHAPTER 7 -- SPECIAL CONDITIONS

Article 760 -- FIRE ALARM SYSTEMS

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopts entire NEC article without amendments	
Adopt entire NEC article as amended (amendments listed below)	
Adopt only those sections which are listed below	
760 with FPN CA	X

Article 760
Fire Alarm Systems

~~Note: [For DSA/AC] Article 760 is adopted by reference in the California Code of Regulations, Title 24, Part 2, Chapter 35, Section 3505.~~

FPN: For applications listed in Section 109.1 of the California Building Code, regulated by the Division of the State Architect/Access Compliance, for control and operating mechanisms see California Code of Regulations, Title 24, Part 2 (California Building Code), Chapter 9, Section 907.4.2 under authority cited by Gov. Code §4450 and in reference cited by Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

I. General

~~760.16 [For DSA/AC] Fire Alarm Manual Pull Stations. The center of fire alarm manual pull stations shall be located 48 inches above the level of the floor, working platform, ground surface, or sidewalk.~~

~~Exception: Enforcement officials shall not retroactively require fire alarm initiating devices be relocated to a 48-inch height.~~

Authority Cited-Gov. Code §4450.

Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

Article 770 -- OPTICAL FIBER CABLES AND RACEWAYS

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopt entire NEC article without amendments	
Adopt entire NEC article as amended (amendments listed below)	
Adopt only those sections which are listed below	

<p>ARTICLE 770 Optical Fiber Cables and Raceways</p>

Note: [For DSA/AC] Article 770 is adopted by reference in the California Code of Regulations, Title 24, Part 2, Chapter 35, Section 3505.

Authority Cited-Gov. Code §4450.
 Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.

CHAPTER 8 -- COMMUNICATION SYSTEMS

Article 800 -- COMMUNICATIONS CIRCUITS

ENFORCING AUTHORITY	Local Building Official
ADOPTING AGENCY	DSA/AC
Adopt entire NEC article without amendments	
Adopt entire NEC article as amended (amendments listed below)	
Adopt only those sections which are listed below	

<p>ARTICLE 800 Communications Circuits</p>

Note: [For DSA/AC] Article 800 is adopted by reference in California Code of Regulations, Title 24, Part 2, Chapter 35, Section 3505.

Authority Cited-Gov. Code §4450.
 Reference-Gov. Code §4450 through 4461, 12955.1 and H&SC §18949.1, 19952 through 19959.