



CODE APPLICATION NOTICE

Health and Safety Code §129851

CAN: 3-517.31(C)(3)(3)(f)

SUBJECT

Mechanical Protection of the wiring of life safety and critical branches that feed luminaires installed in ceilings

Effective: 10/12/2026



CODE SECTIONS

2025 California Electrical Code, Part 3

Chapter 5 Special Occupancies, ARTICLE 517 Health Care Facilities

Sections 517.31(C)(3) Mechanical Protection of the Essential Electrical System.

Appendix – 2025 California Building Standards Code, Title 24, California Code of Regulations, code citation(s) related to this Code Application Notice (CAN).

Acronyms and Definitions assist the user in recognizing and identifying various acronyms and terms generally used in this CAN. Please refer to the “[Master Glossary of Acronyms and Definitions – Acronyms and Definitions Used in OSHPD Published Documents](https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/)” which is posted on the HCAI website at <https://hcai.ca.gov/document/master-glossary-of-acronyms-and-definitions/>. Other definitions may also be found in the [California Building Standards Code](#), Title 24, California Code of Regulations.

PURPOSE

The purpose of this Code Application Notice (CAN) is to clarify where flexible metal conduit will be permitted when feeding ceiling mounted luminaires with life safety or critical branch wiring. OSHPD has consistently interpreted the code to allow for a limited use of listed flexible metal raceways to feed life safety and critical branch luminaires. As stated in the HCAI Advisory Guide A8 – Electrical Guide for Health Care Facilities, this limited use for flexible metal conduits is 6’-0” (max) in length and only permitted for the final length of the run from nonflexible metal raceways or junction boxes to feed individual luminaires.

BACKGROUND

The code recognizes that life-safety and critical-branch wiring requires mechanical protection to improve the reliability of power delivery to life-safety and patient-care equipment. 517.31(C)(3)(1) states that wiring extended in nonflexible metal raceways is an approved method of meeting the mechanical protection requirements of this code section. The code does permit limited use of listed flexible metal raceways or listed metal sheathed cable assemblies for feeds to ceiling mounted luminaires.

The code requirements for mechanical protection of life safety and critical branch wiring for feeds to ceiling mounted luminaires has changed over the last few code cycles in both the National Electrical

Code (NEC) and the California Electrical Code (CEC). As the CEC adopts this section of the NEC with no revisions over these code issuances, we will only address CEC code from this point forward.

Prior to 2016 the CEC did not specifically include luminaires to the list that allowed limited use of listed flexible metal raceways and listed metal sheathed cable assemblies to meet the requirements of mechanical protection for feeds to luminaires fed by life safety or critical branch power. This was sometimes interpreted to require hard pipe and wire to connect to all ceiling luminaires. The code has been revised to allow a practical wiring method for these luminaires installed in ceilings while still retaining the requirement for mechanical protection. As the charging statement states “The wiring of life safety and critical branches shall be mechanically protected by raceways.” The flexible-metal-raceway provisions for luminaire feeds are intended as “limited-use” exceptions.

While the CEC recognizes that mandating that all life safety and critical branch luminaires be hard piped does not necessarily make the system safer or better, it does still have a requirement for mechanical protection of life safety and critical branch wiring that feeds luminaires mounted in ceilings. The code recognizes that ceiling-installed luminaires may require a flexible connection for mounting, adjustment, vibration, or connection to the building wiring, and therefore allows the limited use of flexible metal raceways and listed metal sheathed cable assemblies to feed ceiling mounted luminaires with life safety and critical branch circuits.

APPLICATION

CEC 517.31(C)(3) states that the wiring of life safety and critical branches shall be mechanically protected by raceways. CEC 517.31(C)(3)(3) allows limited use of listed flexible raceways and listed metal sheathed cable assemblies for feeds to luminaires installed in ceiling structures (and other listed items). While the code does not specifically state the limits of lengths for flexible wiring systems permitted to feed these luminaires OSHPD will limit the use of listed flexible metal raceways and listed metal sheathed cable assemblies to the final 6'-0" (max) for life safety and critical branch circuits feeding luminaires installed in ceilings.

Original signed	10/12/2026
Chris Tokas, Deputy Director	Date

APPENDIX

2025 California Building Standards Code, Title 24, California Code of Regulations

2025 California Electrical Code, Part 3

Chapter 5 Special Occupancies, ARTICLE 517 Health Care Facilities

In the 2014 NEC (2016 CEC) The code section read

(3) Mechanical Protection of the Essential Electrical System.

The wiring of the life safety and critical branches shall be mechanically protected by raceways. Where installed as branch circuits in patient care spaces, the installation shall comply with the requirements of [517.13\(A\)](#) and (B) and [250.118](#). Only the following wiring methods shall be permitted:

...

...

(3) Listed flexible metal raceways and listed metal sheathed cable assemblies in any of the following:

- a. Where used in listed prefabricated medical headwalls
- b. In listed office furnishings
- c. Where fished into existing walls or ceilings, not otherwise accessible and not subject to physical damage
- d. Where necessary for flexible connection to equipment

In the 2017 NEC (2020 CEC) this was modified to add luminaires as follows:

(3) Mechanical Protection of the Essential Electrical System.

The wiring of the life safety and critical branches shall be mechanically protected by raceways. Where installed as branch circuits in patient care spaces, the installation shall comply with the requirements of [517.13\(A\)](#) and (B) and [250.118](#). Only the following wiring methods shall be permitted:

...

...

(3) Listed flexible metal raceways and listed metal sheathed cable assemblies in any of the following:

- a. Where used in listed prefabricated medical headwalls
- b. In listed office furnishings
- c. Where fished into existing walls or ceilings, not otherwise accessible and not subject to physical damage
- d. Where necessary for flexible connection to equipment
- e. For equipment that requires a flexible connection due to movement, vibration, or operation
- f. Luminaires installed in rigid ceiling structures where there is no access above the ceiling space after the luminaire is installed**

In the 2020 CEC (2023 CEC) this language was revised to:

(3) Mechanical Protection of the Essential Electrical System.

The wiring of the life safety and critical branches shall be mechanically protected by raceways. Where installed as branch circuits in patient care spaces, the installation shall comply with the requirements of [517.13\(A\)](#) and (B) and [250.118](#). Only the following wiring methods shall be permitted:

...

...

(3) Listed flexible metal raceways and listed metal sheathed cable assemblies in any of the following:

- a. Where used in listed prefabricated medical headwalls
- b. In listed office furnishings
- c. Where fished into existing walls or ceilings, not otherwise accessible and not subject to physical damage
- d. Where necessary for flexible connection to equipment
- e. For equipment that requires a flexible connection due to movement, vibration, or operation

f. Luminaires installed in ceiling structures