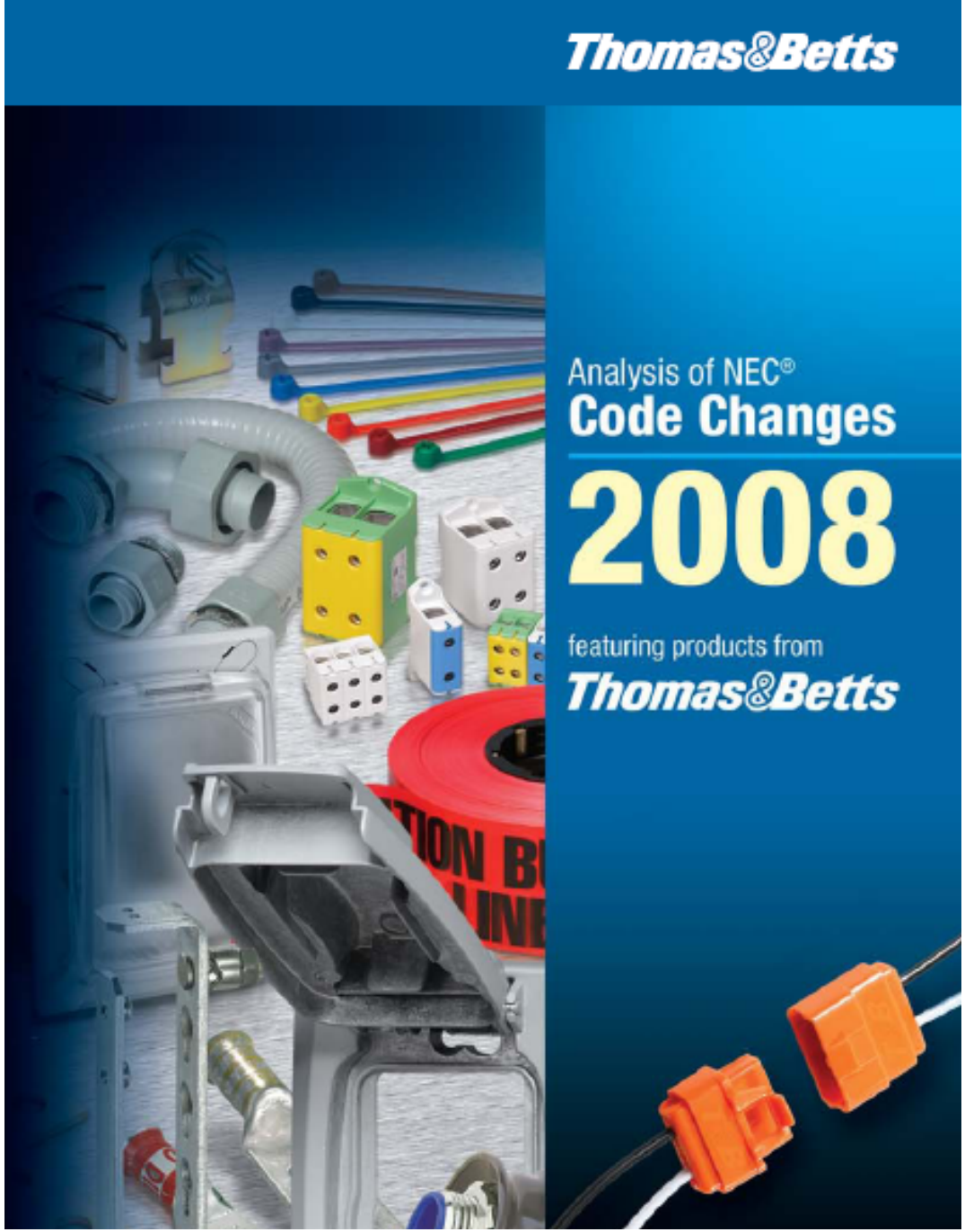

Greg Steinman

Technical Liaison Engineer

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After successfully completing the program, the learner will:

1. Have a better understanding of the NEC layout and order.

2. Be able to identify new code requirements effective with the 2008 NEC.

3. Be able to identify new product requirements that will be needed to comply with the 2008 NEC.

4. Have a clear understanding of the proper application of electrical products in compliance with the 2008 NEC.

Article 90 Introduction

Section 90.2(A)(2) FPN Scope; Covered.

The fine print note that referenced additional information available in ANSI C2, National Electrical Safety Code, was deleted.

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Article 100 Definition

Section 100. A new definition was added to this article.

Intersystem Bonding Termination. A device that provides a means for connecting communications system(s) grounding conductor(s)and bonding conductor(s) at the service equipment or at the disconnecting means for buildings or structures supplied by a feeder or branch circuit.

Article 110 – Requirements for Electrical Installations

Section 110.11 Deteriorating Agents.

Specific equipment identified as Types 2, 5, 12, 12K and 13 have been added to the products required to be protected against permanent damage from weather during the building process.

Photo Courtesy of IAEI

Article 110 – Requirements for Electrical Installations

Section 110.12 (A) Mechanical Execution of Work; Unused Openings.

“Unused openings other than those intended for operation of the equipment, intended for mounting purposes or permitted as part of the design for listed equipment, shall be closed to afford protection substantially equivalent to the wall of the equipment. Where metallic plugs or plates are used with nonmetallic enclosures, they shall be recessed at least 6 mm (1/4 in.) from the outer surface of the enclosure.”

Photo Courtesy of IAEI

Article 110 – Requirements for Electrical Installations

Section 110.20 Enclosure Types.

This new Section establishes marking requirements to indicate the NEMA or UL Type Rating code for a specific list of equipment used in the adverse environments indicated in Table 110.20.

Typical enclosures

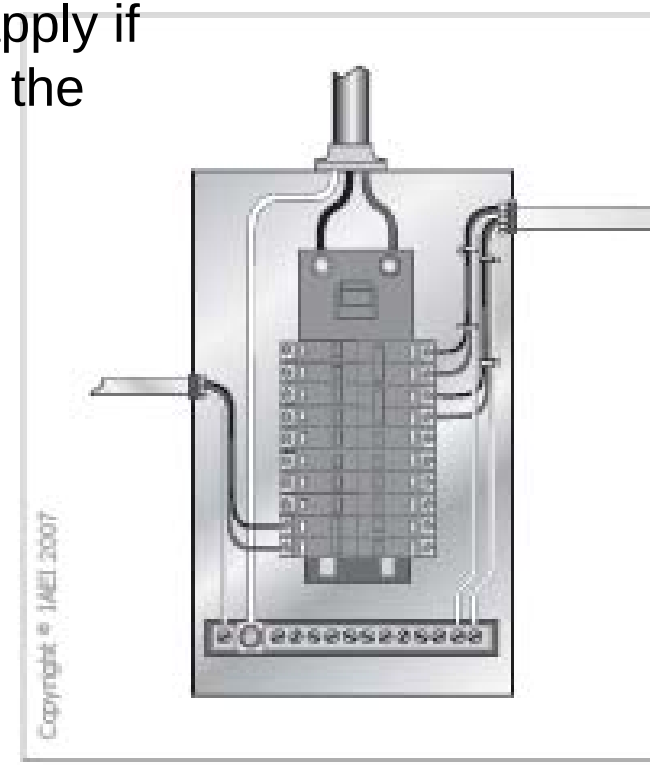
Photo Courtesy of IAEI

Article 210 Branch Circuits

Section 210.4(D) Multiwire Branch Circuits; Grouping

The grounded and ungrounded conductors of each multiwire branch circuit shall be grouped by wire ties or similar means in at least one location within the panelboard or other point of origin.

Exception: The requirement for grouping shall not apply if the circuit enters from a cable or raceway unique to the circuit that makes the grouping obvious.



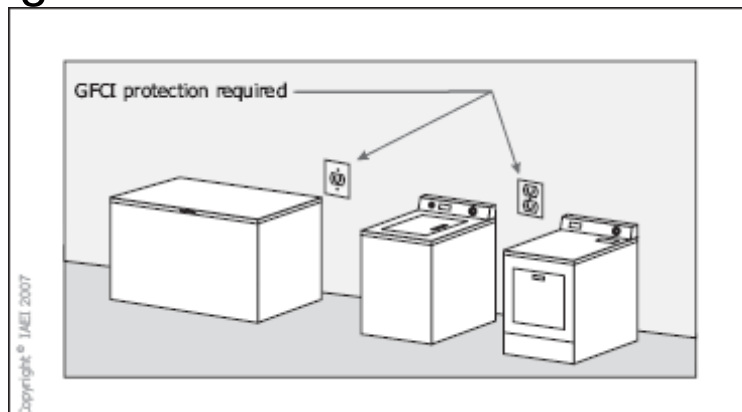
Article 210 Branch Circuits

Section 210.8 (A) Ground-Fault Circuit Interrupter Protection for Personnel; Dwelling Units.

The exception numbers (1) and (2), have been removed and GFCI protection is now required for most receptacles in unfinished basements and in garages and accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas and areas of similar use.

(1) Receptacles that are not readily accessible

(2) A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord and plug connected in accordance with 400.7(A)(6), (A)(7), or (A)(8).



Article 210 Branch Circuits

Section 210.8 (B) Ground-Fault Circuit Interrupter Protection for Personnel; Other than Dwelling Units.

The requirement for GFCI receptacles has been expanded to include other non-residential kitchens in addition to commercial and institutional kitchens in (210.8(B)(2)). Also, with just two specific exceptions, all 125-volt, single- phase 15- and 20- ampere receptacles installed outdoors are now required to have GFCI protection (210.8(B)(4)). New Section 210.8(B)(5) has been added to require GFCI protected receptacles where installed within 6-ft. of any sink.

Section 210.8 (B) Exception New was added. Exception. In industrial laboratories, receptacles used to supply equipment where the removal of power would introduce a greater hazard shall be permitted to be installed without GFCI protection.

Article 210 – Branch Circuits

Section 210.8(C) Ground-Fault Circuit Interrupter Protection for Personnel; Boat Hoists.

The requirement for GFCI protection of outlets that supply boat hoists installed in dwelling unit locations has been revised to apply to all outlets not exceeding 240-volts.

Photo Courtesy of IAEI

Article 210 – Branch Circuits

Section 210.12 (B) Arc-Fault Circuit Interrupter Protection; Dwelling Units

The section was revised as follows:

(B) Dwelling Units. All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sun rooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed arc fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.

Section 210.12 (B) Exception NEW

The exception was added as follows:

Exception : Where RMC, IMC EMT, or steel armored cable, Type AC, meeting the requirements of 250.118, using metal outlet and junction boxes is installed for the portion of the branch circuit between the branch circuit overcurrent device and the first outlet, it shall be permitted to install a combination AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

Article 210 – Branch Circuits

Section 210.52(C) Dwelling Unit Receptacle Outlets; Countertops.

The section was revised to read as follows, “In kitchens, pantries, breakfast rooms, dining rooms and similar areas of dwelling units, receptacle outlets for countertop spaces shall be installed in accordance with 210.52(C)(1) through (C)(5).

Article 210 – Branch Circuits

Section 210.52(E) Dwelling Unit Receptacle Outlets; Outdoor Outlets

The section was revised as follows:

(E) Outdoor Outlets. Outdoor receptacle outlets shall be installed in accordance with E(1) through E(3).

(1) One-family and Two-family Dwellings. For a one-family dwelling and each unit of a two-family dwelling that is at grade level, at least one receptacle outlet accessible while standing at grade level and located not more than 2.0 m (6 1/2 ft) above grade shall be installed at the front and back of the dwelling.

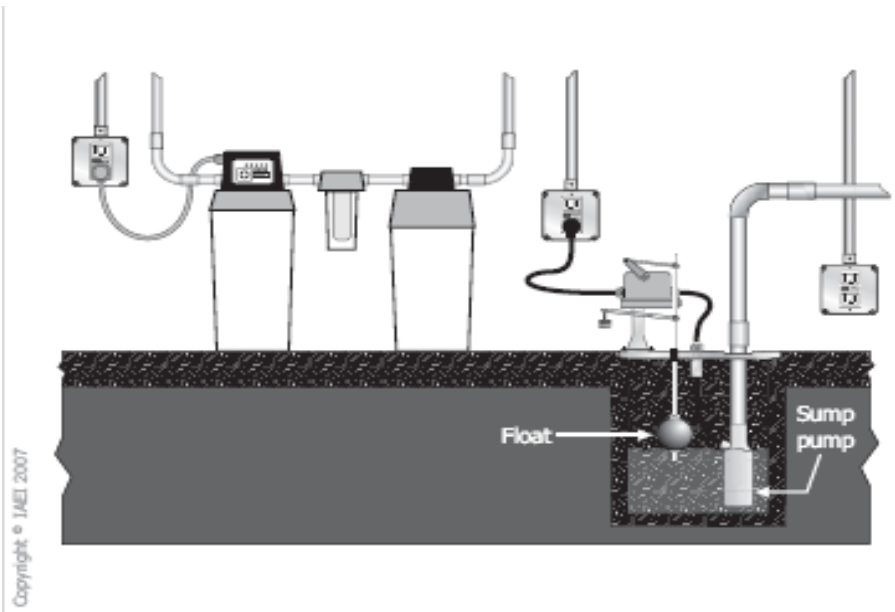
(2) Multi-family Dwellings. For each dwelling unit of a multifamily dwelling where the dwelling unit is located at grade level and provided with individual exterior entrance/egress, at least one receptacle outlet accessible from grade level and not more than 2.0 m (6 1/2 ft) above grade shall be installed.

(3) Balconies, Decks and Porches. Balconies, decks and porches that are accessible from inside the dwelling unit shall have at least one receptacle outlet installed within the perimeter of the balcony, deck or porch. The receptacle shall not be located more that 2.0m (6-1/2 ft.) above the balcony, deck or porch surface. Exception to (3): Balconies, decks or porches with a useable area of less than 20 sq ft are not required to have a receptacle installed.

Article 210 – Branch Circuits

Section 210.52(G) Dwelling Unit Receptacle Outlets; Basements and Garages

The section was revised to read:“(G) Basements and Garages. For a one-family dwelling, the following provisions shall apply:(1) At least one receptacle outlet, in addition to those for specific equipment, shall be installed in each basement, in each attached garage, and in each detached garage with electric power.(2) Where a portion of the basement is finished into one or more habitable rooms, each separate unfinished portion shall have a receptacle outlet installed in accordance with this section.



Article 210 – Branch Circuits

Section 210.60(A) Guest Rooms, Guest Suites, Dormitories and Similar Occupancies.

(A) General.

“Dormitories” have been added to hotels, motels and similar occupancies for application of the general requirements for receptacle placement in 210.52 (A) and bathrooms in 210.52 (D).

Photo courtesy of NEI

Article 225 – Outside Branch Circuits and Feeders

Section 225.22 Raceways on Exterior Surfaces of Buildings or Other Structures.

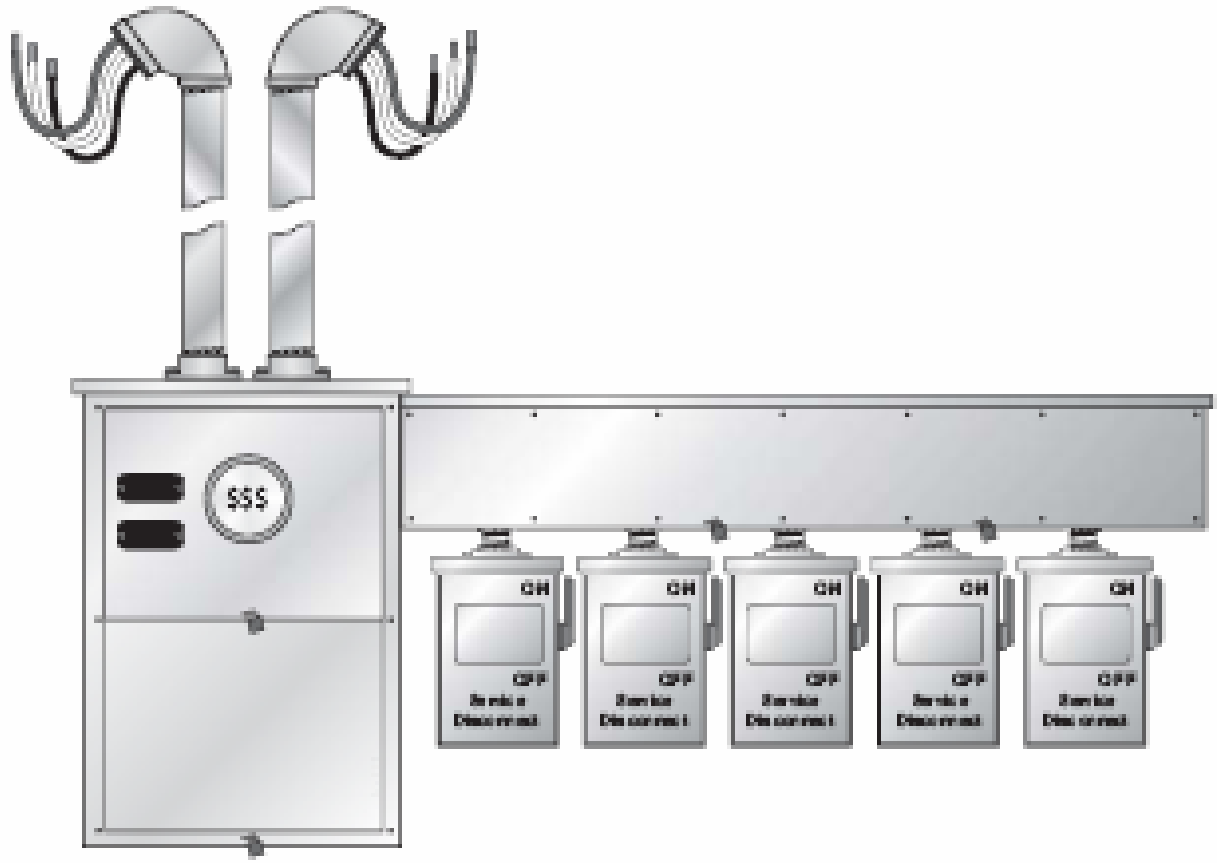
This section was revised to delete the Exception that allowed flexible metal conduit to be used in wet locations without a raintight requirement.

Photo courtesy of IAEI

Article 230 – Services

Section 230.53 Raceways to Drain

This section was revised to change the raintight requirement to suitable for wet locations. The word raintight is not needed as each raceway article includes provisions for wet locations.



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Article 230 – Services

Section 230.54 (A) Overhead Service Locations; Raintight Service Head.

The title and text of sub-section (A) was revised as follows:

(A) Service Head. Service raceways shall be equipped with a service head at the point of connection to service-drop conductors. The service head shall comply with the requirement for fittings in 314.15(A).

Section 230.54 (B) Overhead Service Locations; Service Cable Equipped with Raintight Service Head or Gooseneck.

The title and text of sub-section (B) was revised as follows:

(B) Service Cable Equipped with Service Head or Gooseneck. Service cable shall be equipped with a Service Head or Gooseneck. The service head shall comply with the requirement for fittings in 314.15(A).

Article 250 – Grounding and Bonding

Section Entire Article

The entire article was revised to remove “effectively” from the term “effectively grounded” and “effectively bonded”, also the word “bonded” was changed to “connected to” in many locations in the article.

Article 250 – Grounding and Bonding

Section 250.8 Connection of Grounding and Bonding Equipment

This section was revised to better define the permitted methods of connections.

A) Permitted Methods. Grounding conductors and bonding jumpers shall be connected by one of the following means:

1. listed pressure connectors
2. terminal bars
3. pressure connectors listed as grounding and bonding equipment
4. the exothermic welding process
5. machine screw-type fasteners that engage not less than two threads or are secured with a nut
6. thread forming machine screws that engage not less than two threads in the enclosure
7. connections that are part of a listed assembly
8. other listed means

Article 250 – Grounding and Bonding

Section 250.52(A)(3) Electrodes Permitted for Grounding; Concrete- Encased Electrodes.

This section was revised to add a new sentence. Where multiple concrete-encased electrodes are present at a building or structure it shall be permissible to bond only one into the grounding electrode system.

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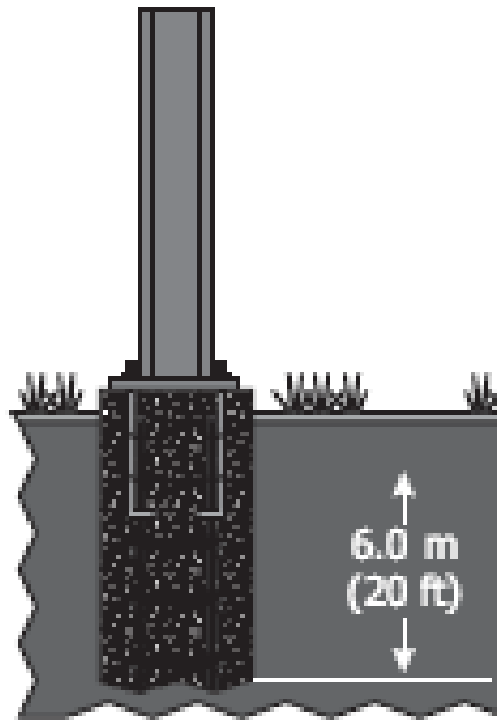


Article 250 – Grounding and Bonding

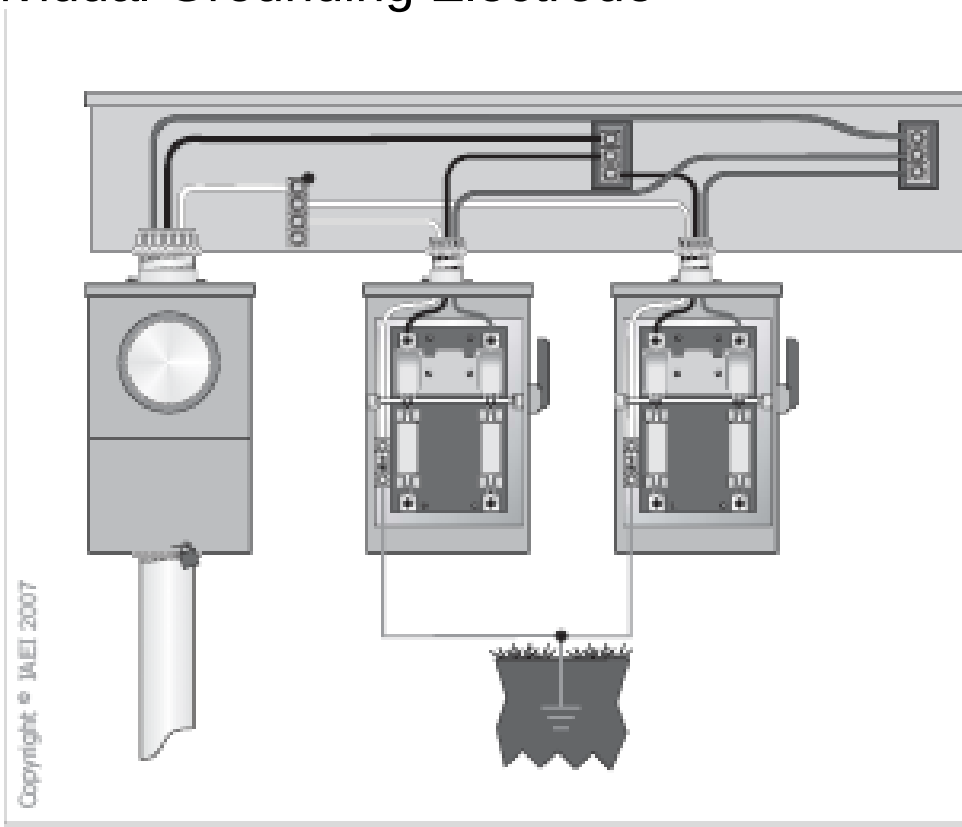
Section 250.54 Auxiliary Grounding Electrodes.

This section was revised to change the word “supplementary grounding electrode” to “auxiliary grounding electrode”.

Article 250 – Grounding and Bonding

Section 250.64(D) Grounding Electrode Conductor Installation; Service with Multiple Disconnecting Means Enclosures

Where a service consists of more than a single enclosure as permitted in 230.71(A), grounding electrode connections shall be made in accordance with (1) Grounding Electrode Taps, (2) Individual Grounding Electrode Conductors, or (3) Common Location



Article 250 – Grounding and Bonding

Section 250.68(A) Exception No. 2 Grounding Electrode Conductor and Bonding Jumper Connection to Grounding Electrodes This section was revised as follows:

(A) Accessibility. All mechanical elements used to terminate a grounding electrode shall be accessible.

Exception No. 1 An encased or buried connection to a concrete encased, driven, or buried electrode shall not be required to be accessible.

Exception No. 2 Exothermic or irreversible compression connections used at terminations, together with the mechanical means used to attach such terminations to fireproofed structural metal whether or not the mechanical means is reversible, shall not be required to be accessible.

Photo Courtesy of IAEI

Article 250 – Grounding and Bonding (Continued)

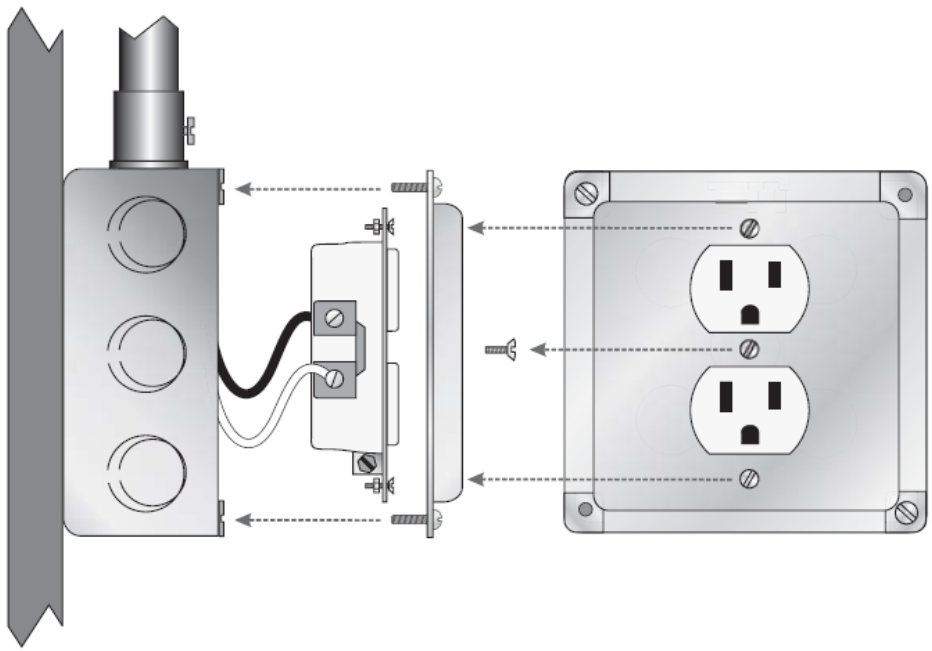
Section 250.94 Bonding for Other Systems.

A requirement was added to install an intersystem bonding termination for the attachment of bonding and grounding conductors required from other systems for attachment at the service equipment and at disconnecting means at additional buildings and structures. The intersystem bonding termination shall have the capacity for connection of not less than three intersystem bonding conductors and shall not interfere with opening a service or metering equipment enclosure.

Article 250 – Grounding and Bonding (Continued)

Section 250.146(A) Connecting Receptacle Grounding Terminal to Box; Surface Mounted Box

The following wording was added, “A listed exposed work cover shall be permitted to be the grounding and bonding means when (1) the device is attached to the cover with at least two fasteners that are permanent (such as a rivet) or have a thread locking or screw locking means and (2) when the cover mounting holes are located on a flat non-raised portion of the cover.”



Article 300 – Wiring Methods

Section 300.4 (A)(1) Protection Against Physical Damage; Cables and Raceways Through Wood Members; Bored Holes

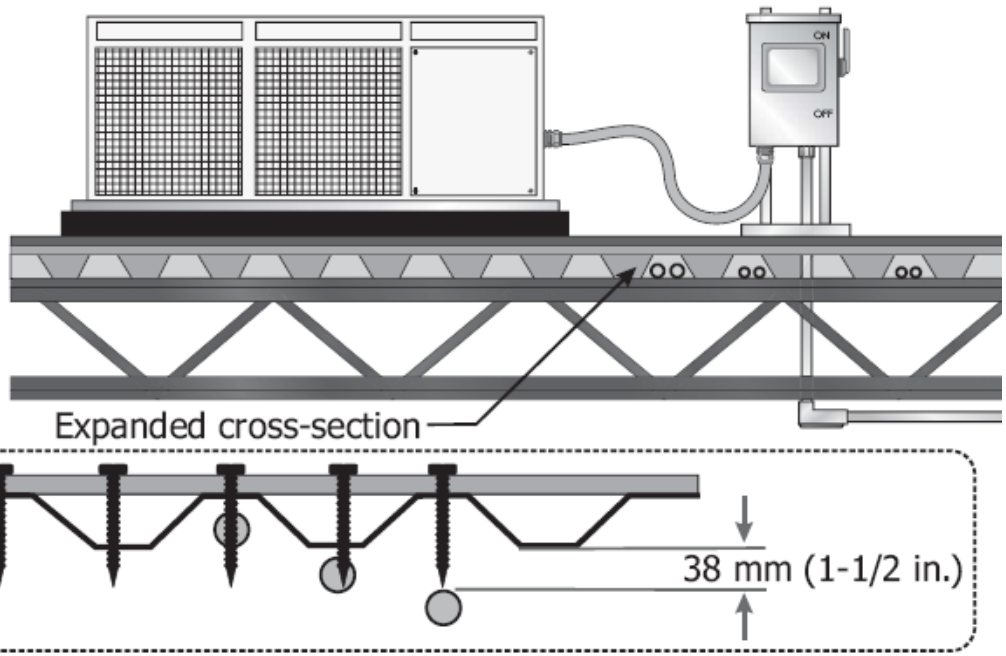
Add an “(s)” to both plate and bushing in the last sentence.

Photo courtesy of IAEI.

Article 300 – Wiring Methods (Cont.)

Section 300.4(E) Protection Against Physical Damage; Cables and Raceways Installed Under Roof Decking.

Existing (E), Cables and Raceways Installed in Shallow Grooves was moved to (F) and existing (F), Insulated Fittings was moved to (G).
The new (E) will state that cables and raceways installed under roof decking shall be installed and supported so that the nearest outside surface of the cable or raceway is not less than 38 mm (1 1/2in.) from the nearest surface of the roof decking.
Rigid metal conduit and intermediate metal conduit shall be exempted from compliance to 300.4(E).



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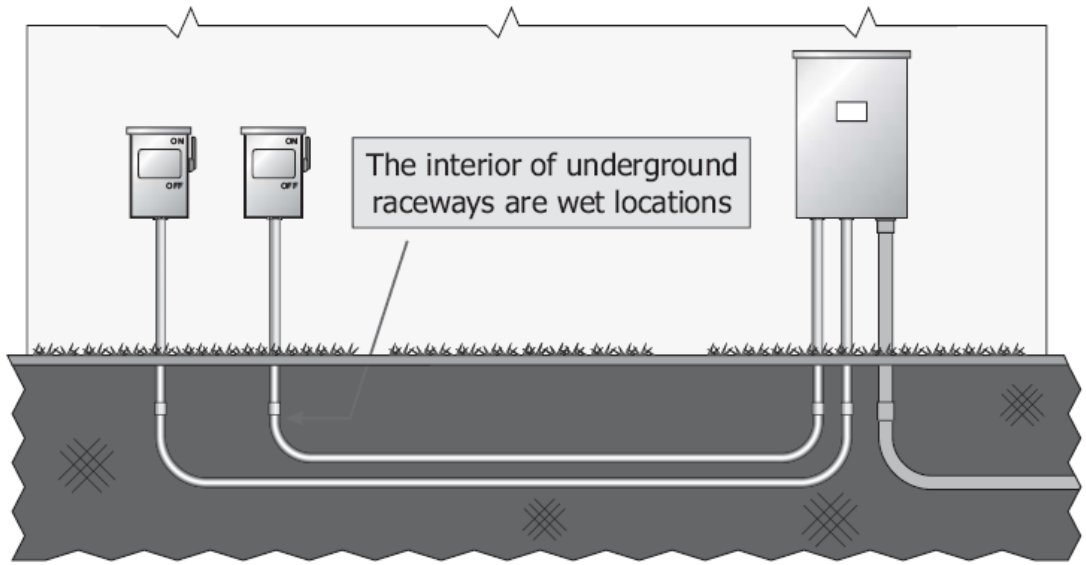
Article 300 – Wiring Methods (Continued)

Section 300.5(B) Underground Installations; Listing

Revise Wet Locations to read:
“The interior of enclosures or raceways installed underground shall be considered to be a wet location. Insulated conductors and cables installed in these enclosures or raceways in underground installations shall be listed for use in wet locations and shall comply with 310.8(C). Any connections or splices in an underground installation shall be approved for wet locations.”



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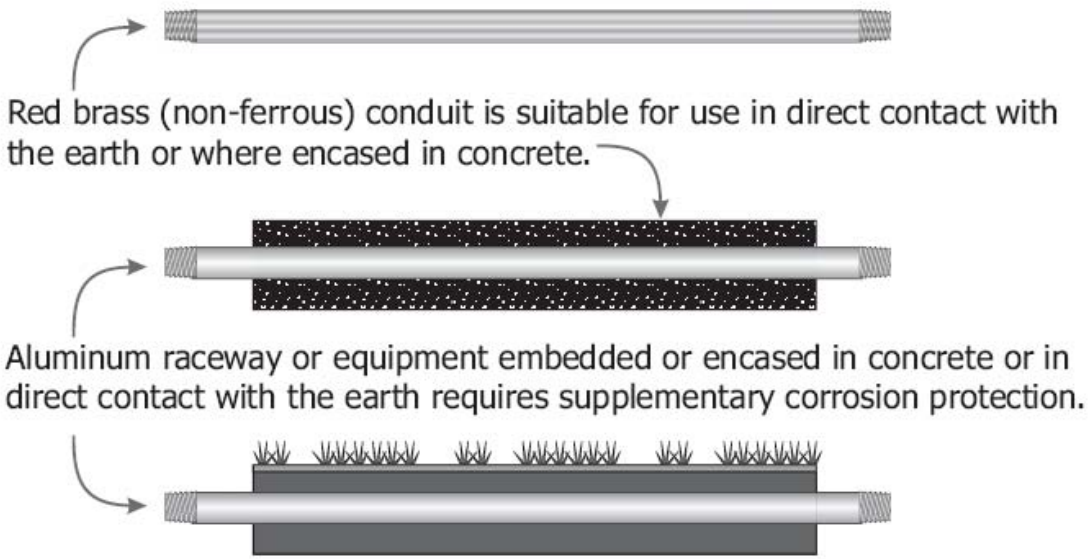
Article 300 – Wiring Methods

Section 300.6(B) Protection Against Corrosion and Deterioration; Aluminum Metal Equipment.

“Aluminum raceways, cable trays, cable bus, auxiliary gutters, cable armors, boxes, cable sheathings, cabinets, elbows, couplings, nipples, fittings, supports and support hardware embedded or encased in concrete or in direct contact with the earth will be provided with supplementary corrosion protection.”



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Article 300 – Wiring Methods (Cont.)

Section 300.9(NEW) Raceways in Wet Locations Above Grade.

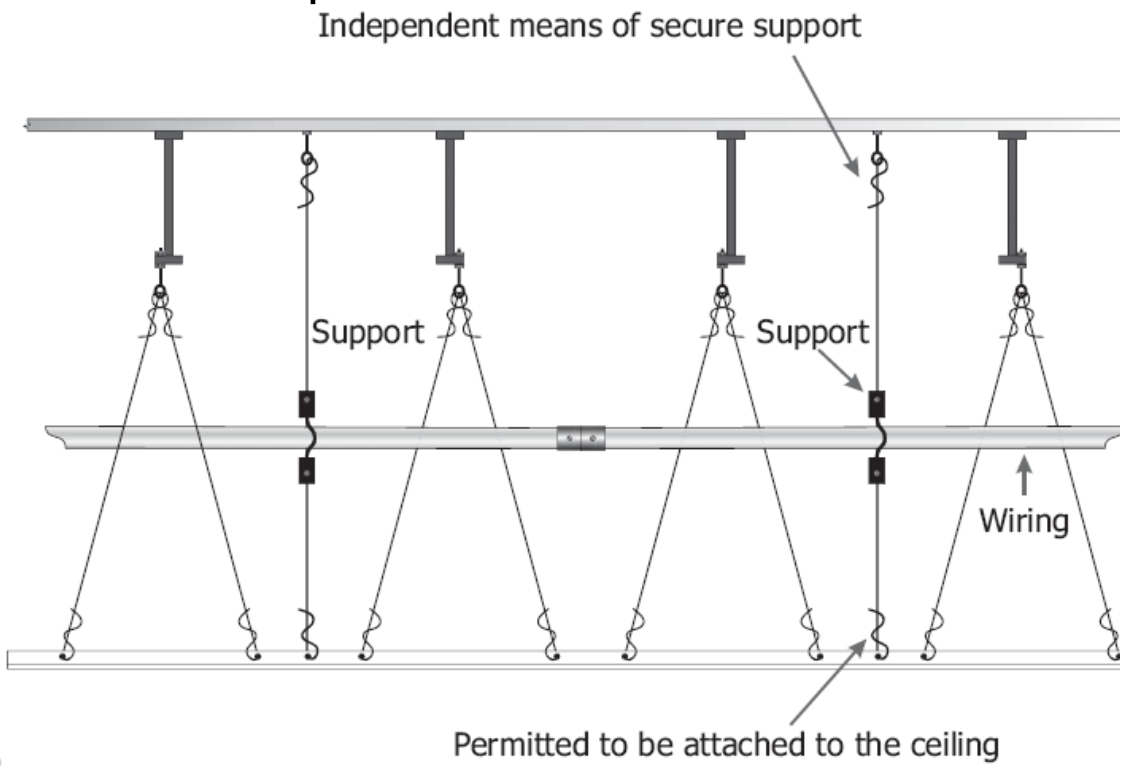
Add new subsection to cover raceways installed in wet locations above grade to read:
"Where raceways are installed in wet locations above grade, the interior of these raceways shall be considered to be a wet location. Insulated conductors and cables installed in raceway in wet locations above grade shall comply with 310.8(C).

Photo courtesy of IAEI.

Article 300 – Wiring Methods (Continued)

Section 300.11(A)(2) Securing and Supporting; Secured in Place; Non-Fire-Rated Assemblies.

Revise the last sentence to read: “An independent means of secure support shall be provided and shall be permitted to be attached to the assembly.”



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Article 300 – Wiring Methods (Continued)

Section 300.16(A) Raceway or Cable to Open or Concealed Raceway; Box, Conduit Body or Fitting.

Add the term “Conduit Body” so the section reads:
“A box, conduit body, or terminal fitting having a separately bushed hole for each conductor shall be used wherever a change is made from conduit, electrical metallic tubing, electrical nonmetallic tubing, nonmetallic sheathed cable, Type AC cable, Type MC cable, or mineral-insulated, metal-sheathed cable and surface raceway wiring to open wiring or to concealed knob-and-tube wiring. A fitting used for this purpose shall contain no taps or splices and shall not be used at luminarie (fixture) outlets. A conduit body used for this purpose shall contain no taps or splices, unless it complies with 314.16(C)(2).”

Article 300 – Wiring Methods (Continued)

Section and Table 300.50 Minimum Cover Requirements

Add a superscript “4” to the first column “Direct Buried Cables” and a note “4” below that states: “Underground direct-buried cables that are not encased or protected by concrete and are buried 750 mm (30 in.) or more below grade shall have their location identified by a warning ribbon that is placed in the trench at least 300 mm (12 in.) above the cables.”

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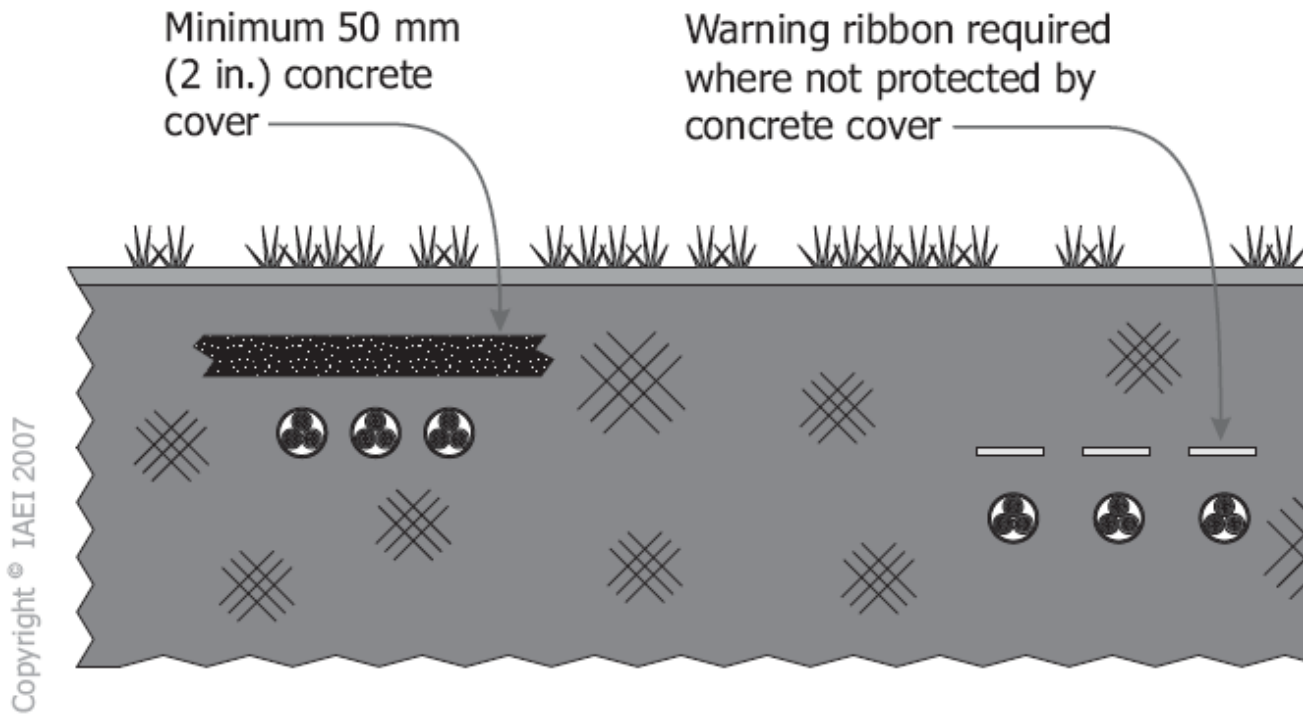

Article 310 – Conductors for General Wiring

Section 310.15 (B)(2)(c)(New) Tables. Adjustment Factors; Conduit Exposed To Sunlight on Rooftops.

This new sub-section was added to read:
“Where conductors or cables are installed in conduits exposed to direct sunlight on or above rooftops, the adjustments shown in Table 310.15(B)(2)(c) shall be added to the outdoor temperature to determine the applicable ambient temperature for application of the correction factors in Tables 310.6 and 310.18.”

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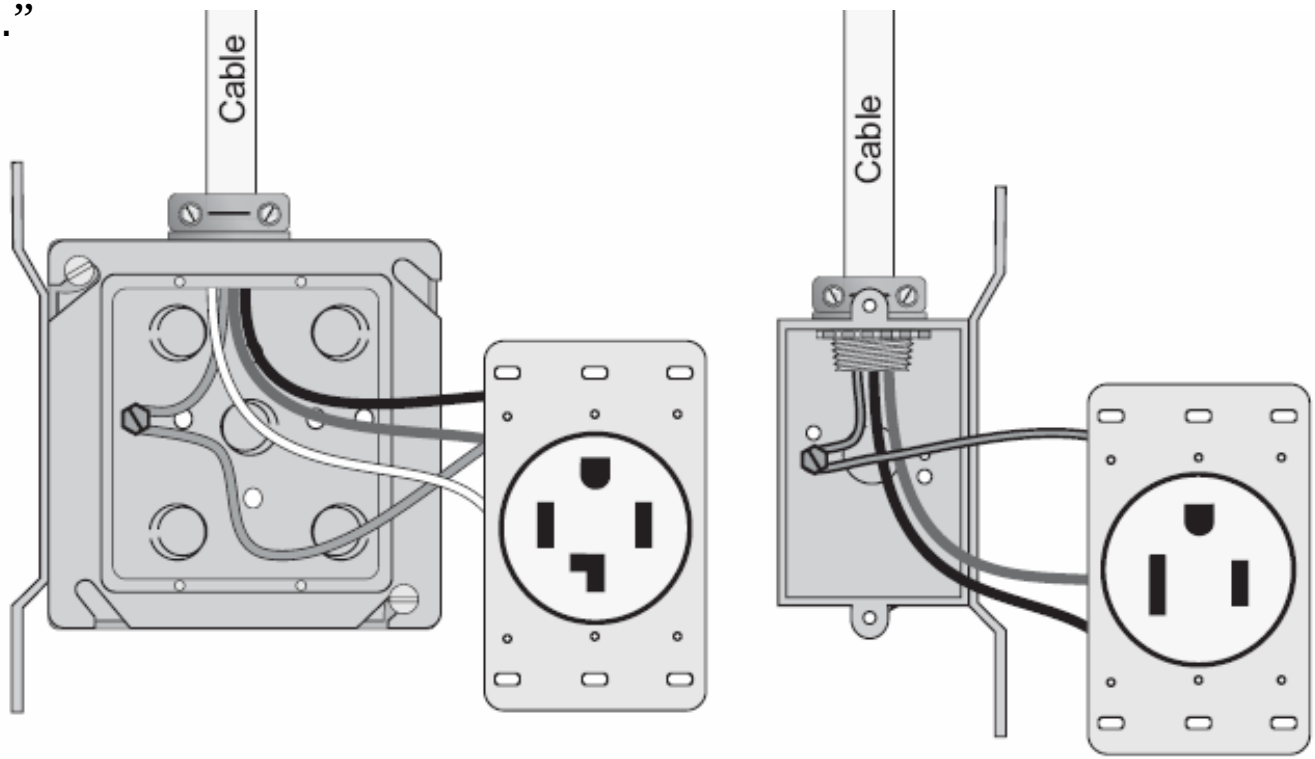
Photo courtesy of IAEI.

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.16(B)(4) Number of Conductors in Outlet, Device and Junction Boxes, and Conduit Bodies; Box Fill Calculations; Device or Equipment Fill.

The following wording was added to the end of the Section:
“A device or utilization equipment wider than a single 50 mm (2 in.) device box as described in Table 314.16(A) shall have double volume allowances provided for each gang required for mounting.”



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Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures (Continued)

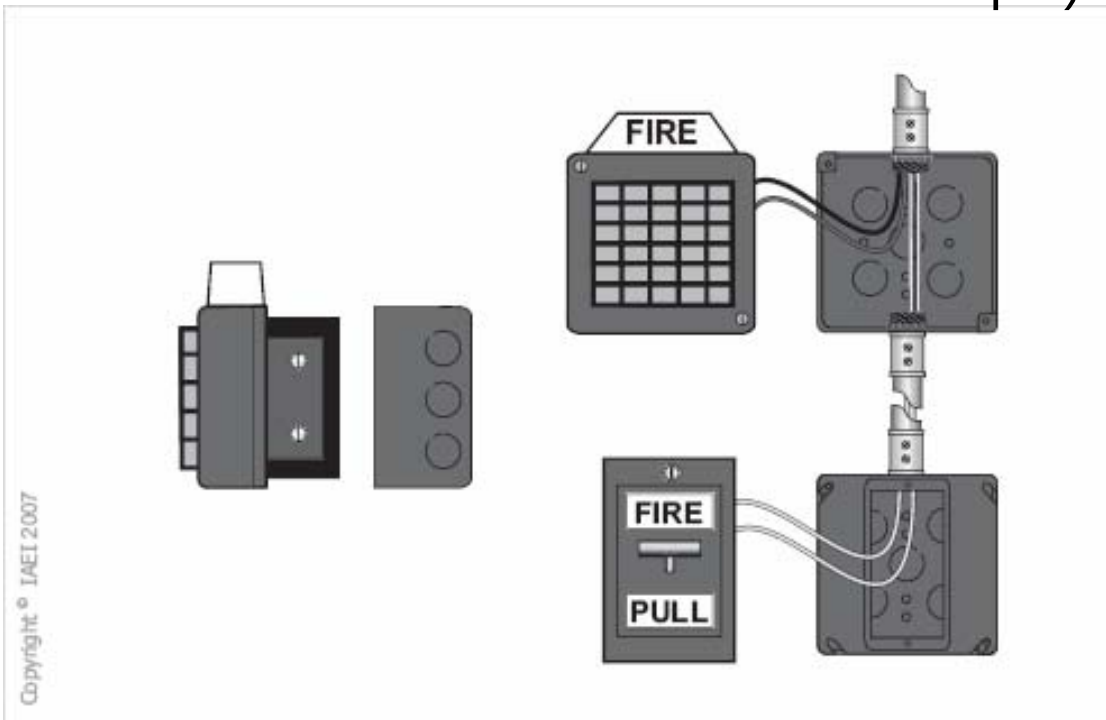
Section 314.22 Exception Surface Extensions.

Revised Surface Extensions to read:
“Surface extensions shall be made by mounting and mechanically securing an extension ring over the box. Equipment grounding shall be in accordance with Part VI of Article 250.
Exception: A surface extension shall be permitted to be made from the cover of a box where the cover is designed so it is unlikely to fall off or be removed if its securing means becomes loose. The wiring method shall be flexible for a length sufficient to permit removal of the cover and provide access to the box interior, and arranged so that any grounding continuity is independent of the connection between the box and cover.”

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.24 Minimum Depth of Boxes

Replace the existing requirement with the following:
“Outlet and device boxes shall have sufficient depth to allow equipment installed within them to be mounted properly and with sufficient clearance to prevent damage to conductors within the box.
(following code text was revised to define sufficient depth)



Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures (Continued)

Section 314.27(A) and (B) Outlet Boxes; Boxes at Luminaire (Lighting Fixture) Outlets and Maximum Luminaire (Fixture) Weight.

Revise the wording to clarify the various weights for outlet box support.

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures (Continued)

Section 314.27(E)(NEW) Outlet Boxes; Utilization Equipment

Add a new Section to read:
“Utilization Equipment. Boxes used for the support of utilization equipment other than ceiling-suspended (paddle) fans shall meet the requirements of 314.27 (A) and (B) for the support of a luminaire (fixture) that is the same size and weight.
Exception: Utilization equipment weighing not more than 6 lb shall be permitted to be supported on other boxes or plaster rings that are secured to other boxes, provided the equipment or its supporting yoke is secured to the box with no fewer than two No. 6 or larger screws.

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.28(A)(2) Pull and Junction Boxes; Minimum Size; Angle or U Pulls.

Change the title to “Angle or U Pulls, or Splices”

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.30 Handhole Enclosures.

Revise the definition by adding the words
"shall be identified for use in underground systems
and…." so it reads:
"Handhole enclosures shall be identified for use in underground systems and shall be designed and installed to withstand all loads likely to be imposed on them."

Article 314 Outlet, Device, Pull, and Function Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.30(C) Handhole Enclosures; Handhole Enclosures Without Bottoms.

Revise the text to read:
“All enclosed conductors and any splices or terminations, if present, shall be listed as suitable for wet locations.”

Article 336 Power and Control Tray Cable: Type TC

Section 336.10 Uses Permitted.

Add a new Exception to 336.10(7) that states that Type TC –ER can transition between cable trays a distance not to exceed 1.8 m (6 ft). It must also be mechanically supported where exiting the cable tray to assure that the minimum-bending radius is not exceeded.

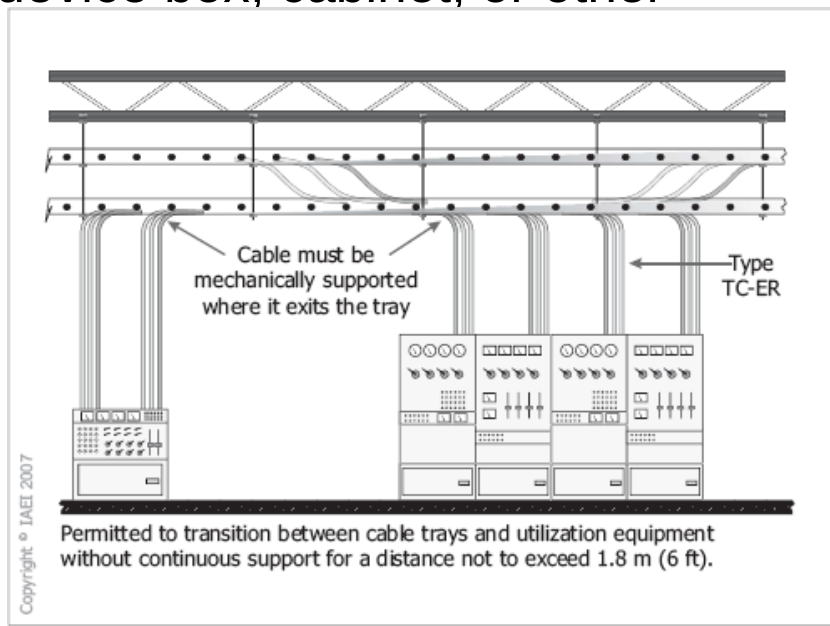
Article 342 Intermediate Metal Conduit: Type IMC

This is the same change that was also approved for the following Articles:

334 – Type RMC
352 --Type RNC
358 – Type EMT

Section 342.30(C) Securing and Supporting; Unsupported Raceways.

Add a new (C) to state:
“Where oversized, concentric or eccentric knockouts are not encountered, Type IMC shall be permitted to be unsupported where the raceway is not more than 450 mm (18 in) and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, device box, cabinet, or other termination at each end of the raceway.”



Article 344 Rigid Metal Conduit: Type RMC

Section 344.2 Definition.

Replace the term “silicon bronze” with the term “red brass.”

Article 344 Rigid Metal Conduit: Type RMC

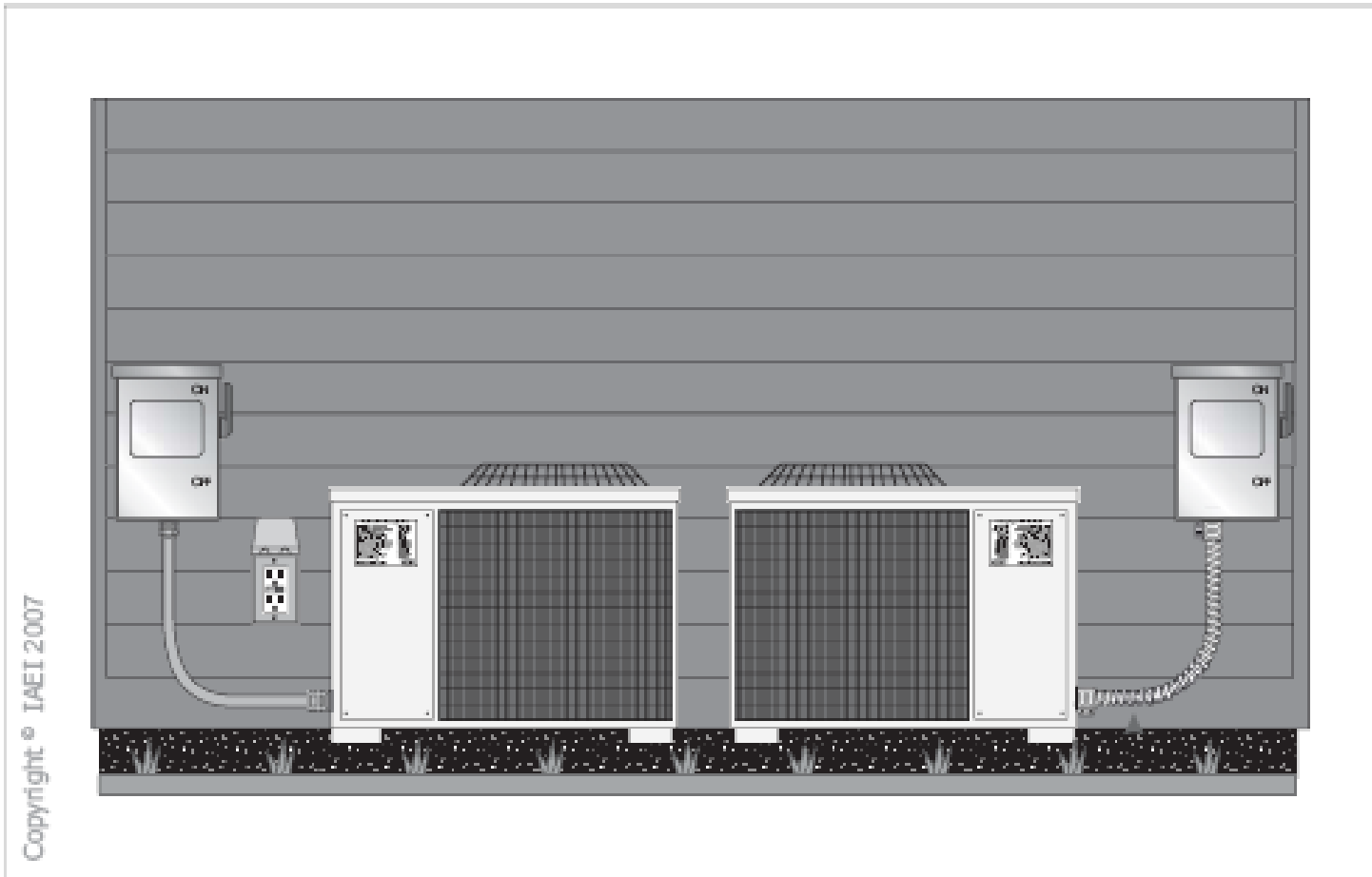
Section 344.10(A), (B) and (C) Uses Permitted; All Atmospheric Conditions and Occupancies; Corrosion Environments; Cinder Fill.

Red brass RMC and aluminum RMC were re-written under 344.10(A) as follows:
“2. Red brass RMC shall be permitted to be installed for direct burial and swimming pool applications.
3. Aluminum RMC shall be permitted to be installed where judged suitable for the environment. Rigid aluminum conduit encased in concrete or in direct contact with the earth shall be provided with approved supplementary corrosion protection.”
The Corrosive Environments section 344.10(B) was rewritten for aluminum RMC and conduit with approved supplementary protection.
“2. Aluminum RMC shall be provided with approved supplementary corrosion protection where encased in concrete or in direct contact with the earth.
FPN: The galvanizing on steel (ferrous) RMC provides corrosion protection. The AHJ may require supplementary corrosion protection for severely corrosive environments. Where aluminum (non-ferrous) RMC is encased in concrete or direct buried, approved supplementary corrosion protection is required. This protection can be provided in a variety of ways including factory PVC-coating, tape wrapping, or painting with zinc-rich paint.”

Article 348 Flexible Metal Conduit: Type FMC

Section 348.12(1) Uses Not Permitted.

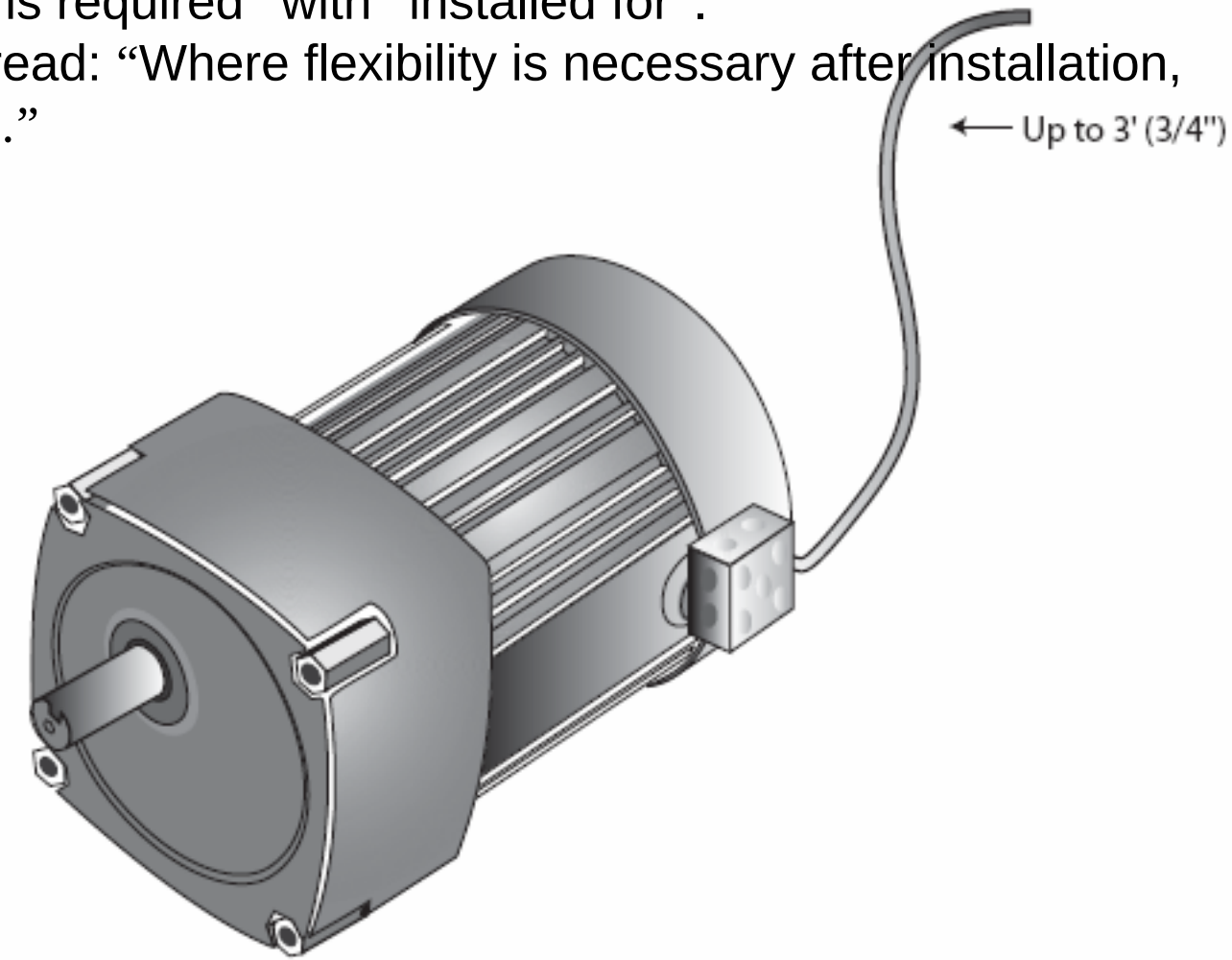
Delete the wording “..unless the conductors are approved for the specific conditions and the installation is such that liquid is not likely to enter raceways or enclosures to which the conduit is connected.”



Article 348 Flexible Metal Conduit: Type FMC

Section 348.30(A) Exception No. 2 Securing and Supporting; Securely Fastened.

Replace the terminology “is required” with “installed for”.
Exception No. 2 will now read: “Where flexibility is necessary after installation, lengths shall not exceed…”



Article 348 Flexible Metal Conduit: Type FMC

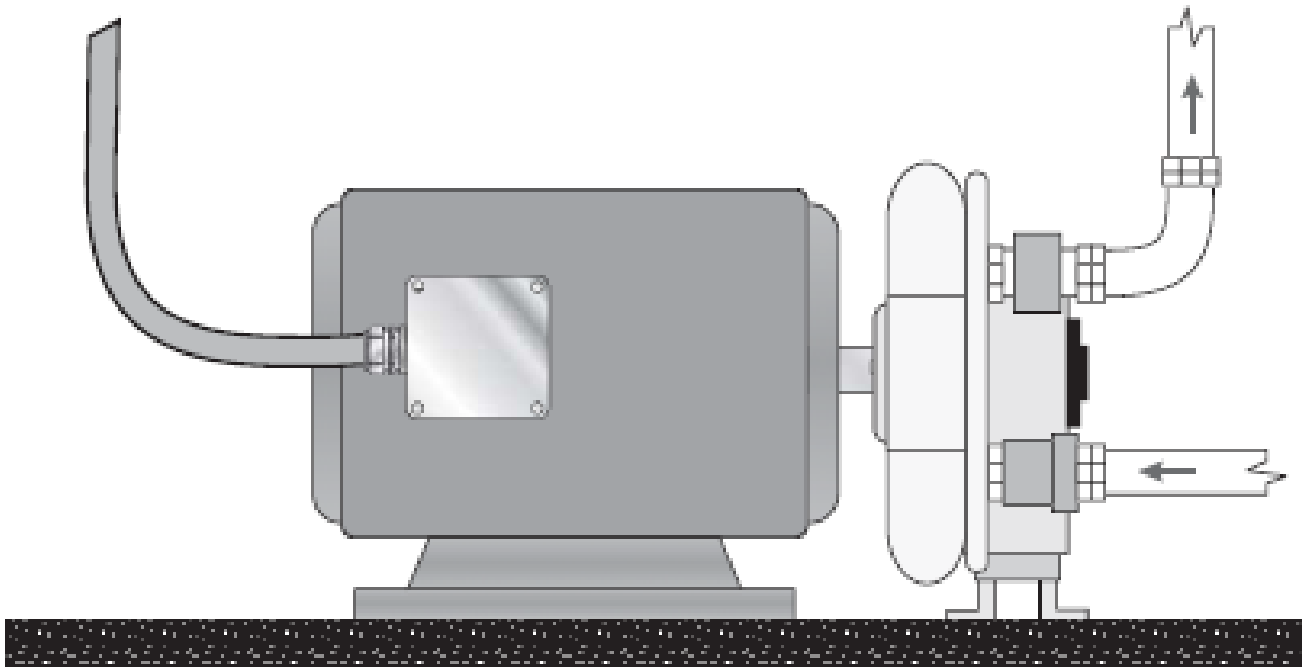
Section 348.60 Grounding and Bonding

Add the term “after installation” to the Grounding and Bonding section so it reads:
“Where used to connect equipment where flexibility is required after installation, an equipment grounding conductor shall be installed….Where flexibility is not required after installation, FMC shall be permitted to be used as an equipment grounding conductor….”

Article 350 Liquidtight Flexible Metal Conduit: Type LFMC

Section 350.30(A) Securing and Supporting; Securely Fastened.

Revise Exception No. 2 to read:
“Where flexibility is necessary after installation, lengths shall not exceed the following:
(1) 900 mm (3 ft.) for metric designators 16 through 35 (trade sizes ½ through 1¼)
(2) 1200 mm (4 ft.) for metric designators 41 through 53 (trade sizes 1 ½ though 2)
(3) 1500 mm (5 ft.) for metric designators 63 (trade size 2 ½) and larger.



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Article 350 Liquidtight Flexible Metal Conduit: Type LFMC

Section 350.60 Grounding and Bonding

Added the words “after installation” to the requirement of when an equipment grounding conductor must be installed. The new wording shall read: “Where used to connect equipment where flexibility is necessary after installation, an equipment grounding conductor shall be installed….Where flexibility after installation is not required, LFMC shall be permitted to be used as an equipment grounding conductor when installed in accordance with 250.118(6)”

Article 352 Polyvinyl Chloride Conduit: Type PVC

Section Entire Article

Revise the entire Article to replace the word “nonmetallic” and the acronym “RNC” with “polyvinyl chloride” and “PVC” respectively.

Article 352 Polyvinyl Chloride Conduit: Type PVC

Section 352.10 Used Permitted; Exposed.

Add a FPN (Fine Print Note) to 352.10(F) that reads:
“PVC conduit, Type schedule 80, is identified for areas of physical damage.”

Photo courtesy of IAEI.

Article 352 Polyvinyl Chloride Conduit: Type PVC

Section 352.10(G) Uses Permitted;
Underground Installations.

The text was revised to read as follows:
“For underground installations, homogeneous, and non-homogeneous PVC shall be permitted for direct burial and underground encased in concrete…”Section 352.100 Construction
The text was revised to read as follows:
“PVC conduit shall be made of rigid (nonplasticized) polyvinyl chloride (PVC)”.

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Photo courtesy of IAEI.

Article 352 Polyvinyl Chloride Conduit: Type PVC

Note: This same change was also approved for the following Articles:

353 – Type HDPE conduit
354 – Type NUCC
356 – Type LFNC
358 – Type EMT
362 – Type ENT
372 – Cellular Concrete Floor Raceway
374 – Cellular Metal Floor Raceway
378 – Nonmetallic Wireways
380 – Multioutlet Assemblies
388 – Surface Nonmetallic Raceways

Section 352.12(A) Uses Not Permitted; Hazardous (Classified) Locations

Delete the specific references to hazardous (classified) locations by changing the wording as follows:
“In any hazardous (classified) locations, except as permitted by other Articles in this Code.”

Article 355 Reinforced Thermosetting Resign Conduit: Type RTRC

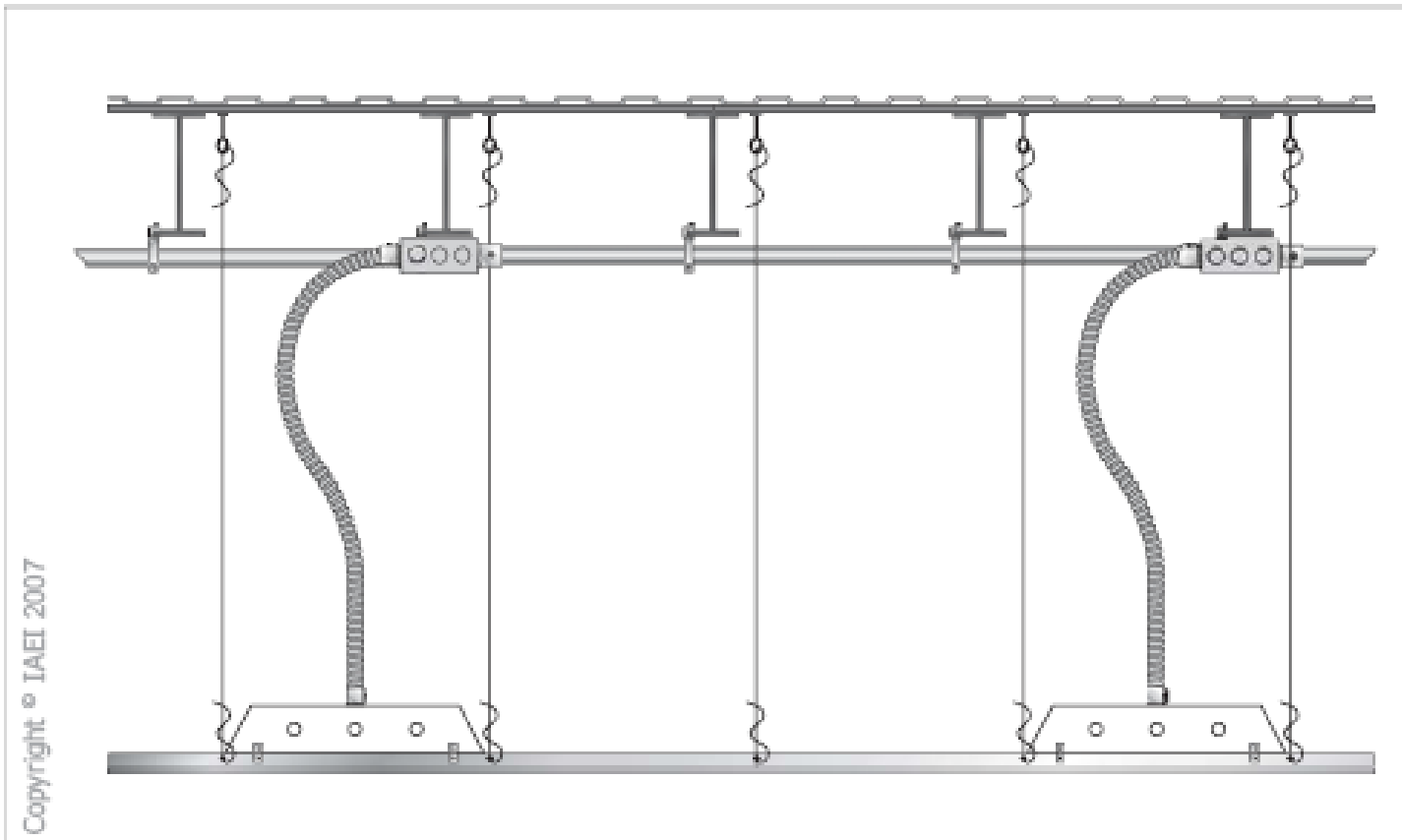
Section 355 (NEW) Entire Article

Add a new Article 355 to cover Type RTRC. This new Article is written without change from information taken from Article 352.

Article 360 Flexible Metallic Tubing: Type FMT

Section 360.20(A)(Exception No. 2) Size; Minimum

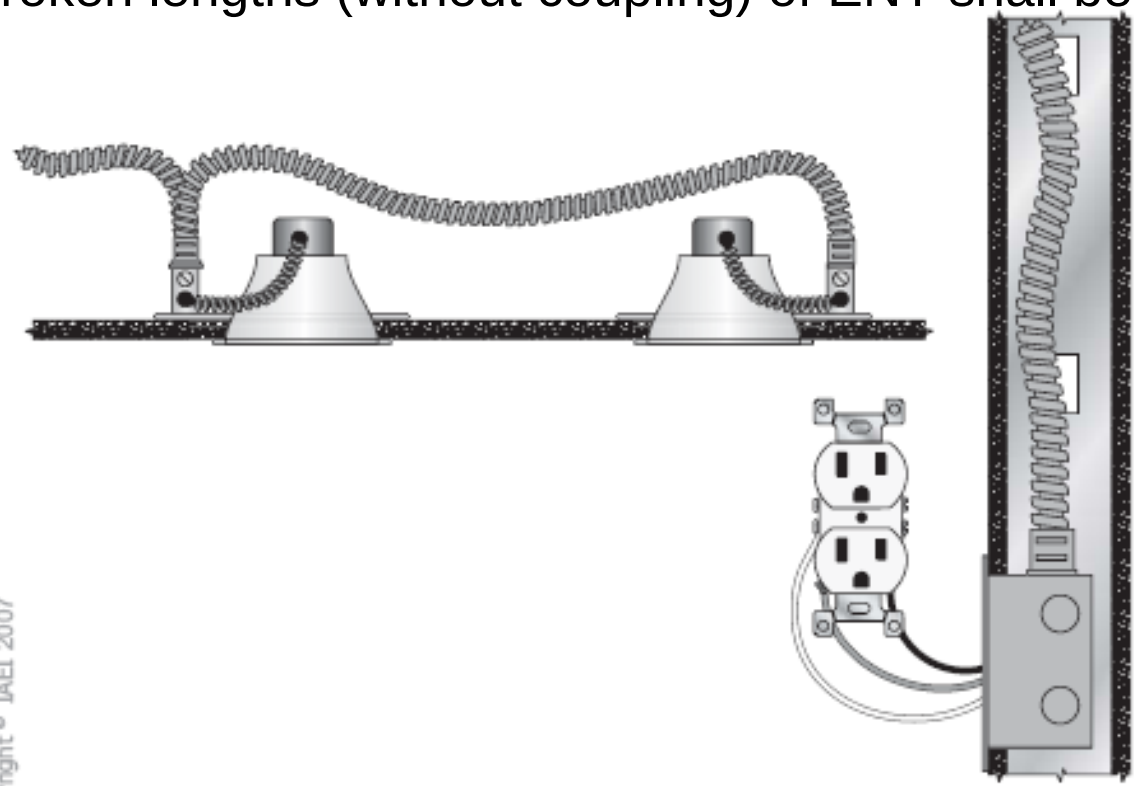
Change the word “approved” with “listed” so the exception reads:
“FMT of metric designator 12 (trade size 3/8) shall be permitted in lengths not in excess of 1.8 m (6 ft.) as part of a listed assembly or for luminaires (lighting fixtures). See 410.67(C).”



Article 362 Electrical Nonmetallic Tubing: Type ENT

Section 362.30(A)(Exception No. 3)(NEW) Securing and Supporting; Securely Fastened.

Add Exception No. 3 to cover applications where ENT is fished.
“For concealed work in finished buildings or prefinished wall panels where such securing is impracticable, unbroken lengths (without coupling) of ENT shall be permitted to be fished.”



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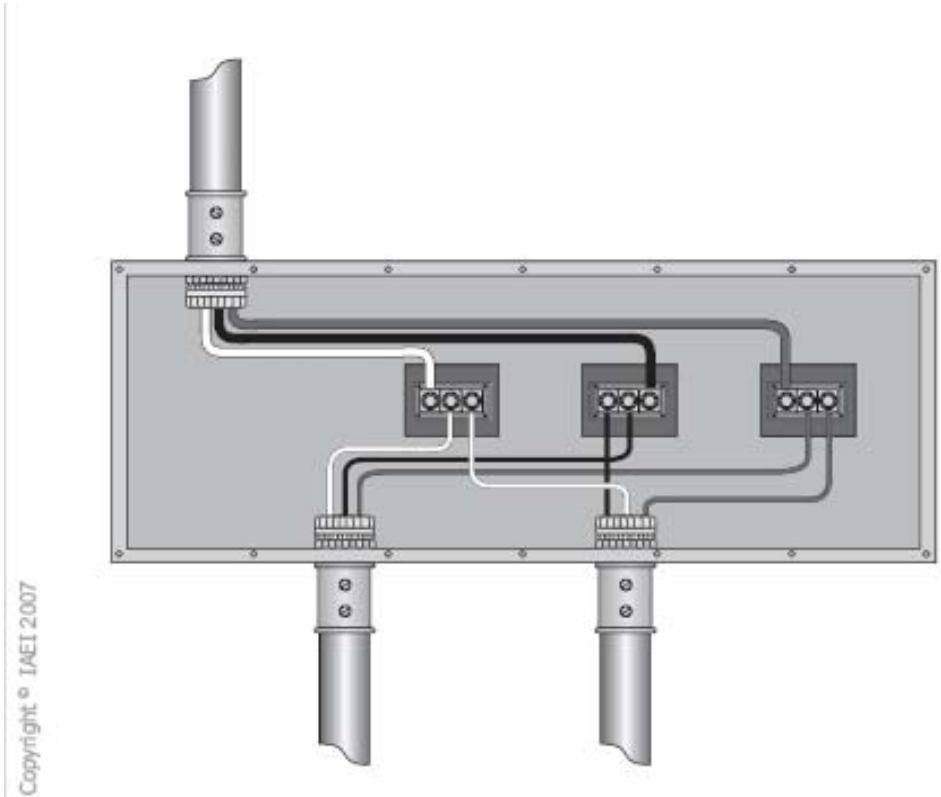
Article 376 Metal Wireways

Section 376.56(B)(4) Splices, Taps, and Power Distribution Blocks; Power Distribution Blocks; Live Parts.

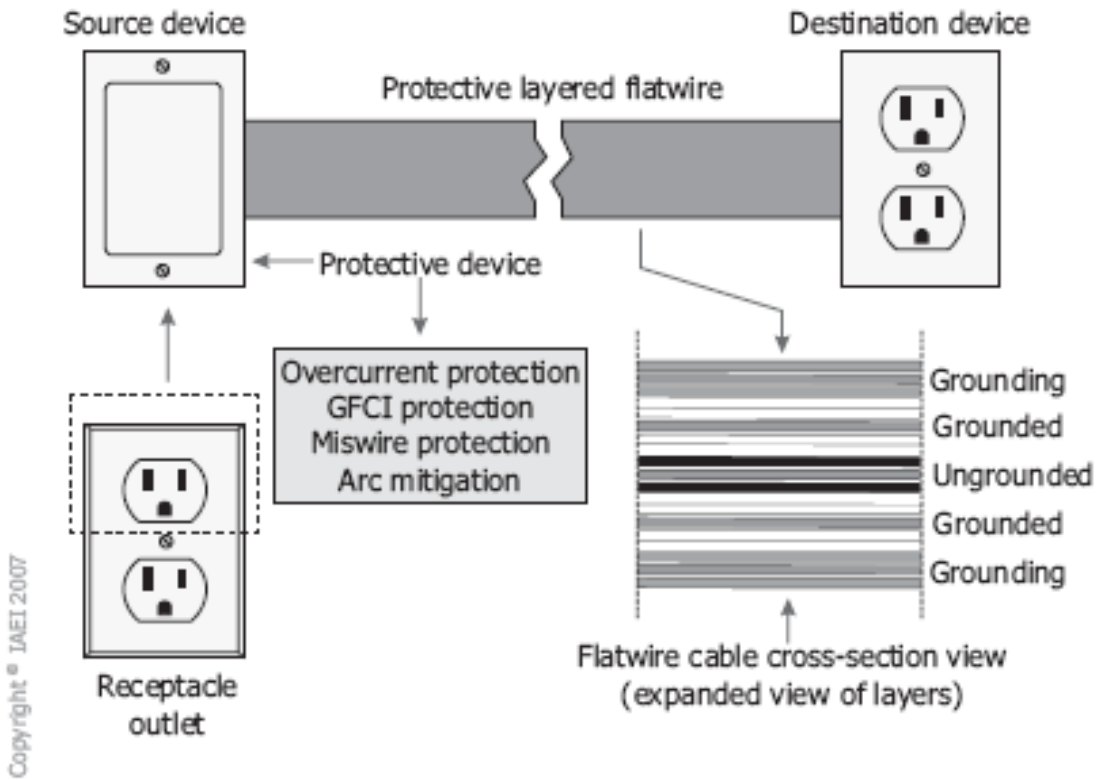
Change the wording to state:
“Power distribution blocks shall not have uninsulated live parts exposed within a wireway, whether or not the wireway cover is installed.”



Article 382 Nonmetallic Extensions

Section 382.2 Definition

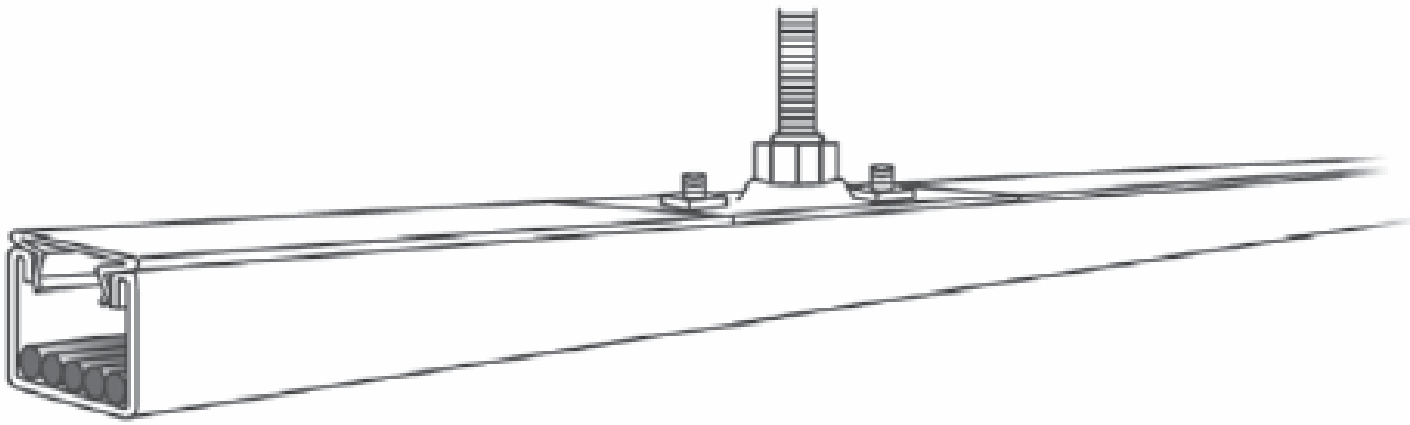
Revise the definition to cover concealable nonmetallic extensions and reword as follows: “A Listed assembly of two, three, or four insulated circuit conductors within a nonmetallic jacket, an extruded thermoplastic covering, or a sealed nonmetallic covering. The classification includes surface extensions intended for mounting directly on the surface of walls or ceiling, and concealed with plaster, wallpaper, tile, wall paneling, or other similar materials.”



Article 384 Strut Type Channel Raceway

Section Table 384.22

Change the title as follows:
Channel Size and Inside Cross Sectional Area



Article 388 Surface Nonmetallic Raceways

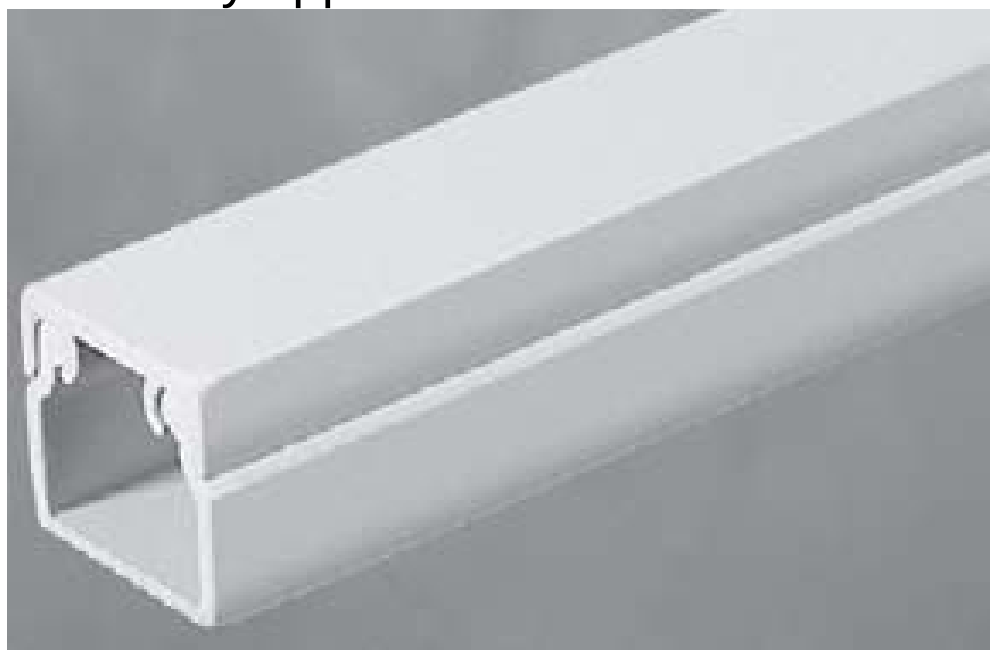
Section 388.30 Securing and Supporting.

The wording for Securing and Supporting was added as follows:
“Surface nonmetallic raceways shall be supported at intervals in accordance with the manufacturer’s installation instructions.”

Article 388 Surface Nonmetallic Raceways

Section 388.56 Splices and Taps.

Revised wording shall read:
“Splices and taps shall be permitted in surface nonmetallic raceways having a cover capable of being opened in place that is accessible after installation. The conductors, including splices and taps, shall not fill the raceway to more than 75 percent of its area at that point. Splices and taps in surface nonmetallic raceways without covers capable of being opened in place shall be made only in boxes. All splices and taps shall be made by approved methods.”



Article 392 Cable Trays

Section 392.11(C) Combinations of Multiconductor and Single-Conductor Cables.

Because the current wording did not cover installations of combinations of multiconductor and single conductor cables, the allowable ampacities shall be as given in 392.11(A) for mullticonductor cables and 392.11(B) for single-conductor cables, provided that:

(1) The sum of the multiconductor cable fill area as a percentage of the allowable fill area for the tray calculated per 392.9, and the single-conductor cable fill area as a percentage of the allowable fill area for the tray calculated per 392.10, totals not more than 100%.

(2) Multiconductor cables are installed according to 392.9 and single conductor cables are installed according to 392.10 and 392.8(D) and (E).

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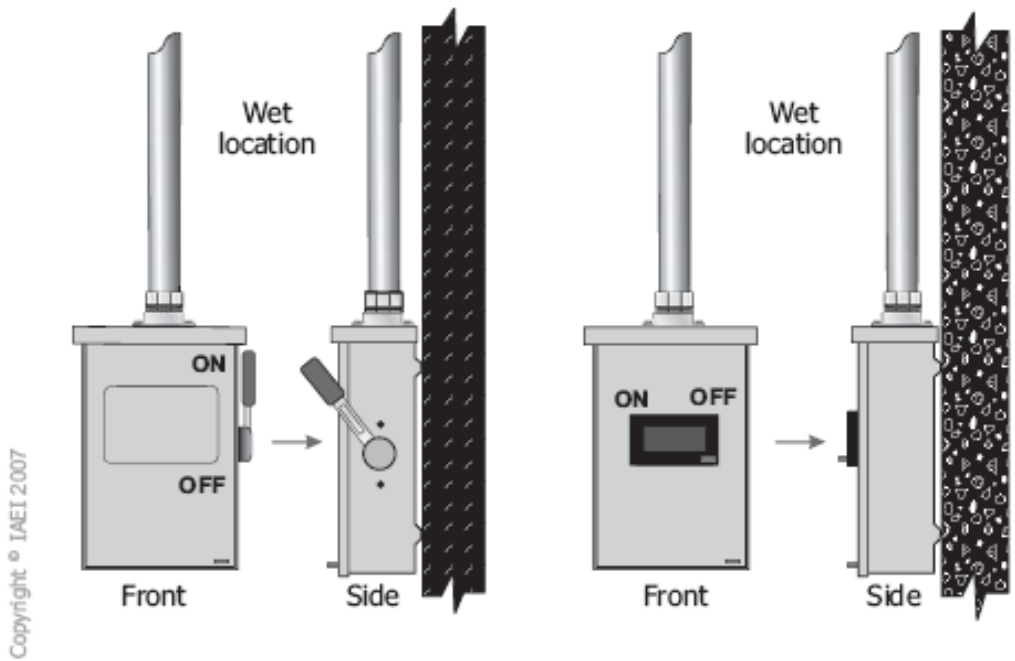
Article 404 Switches

Section 404.4 Damp or Wet Locations

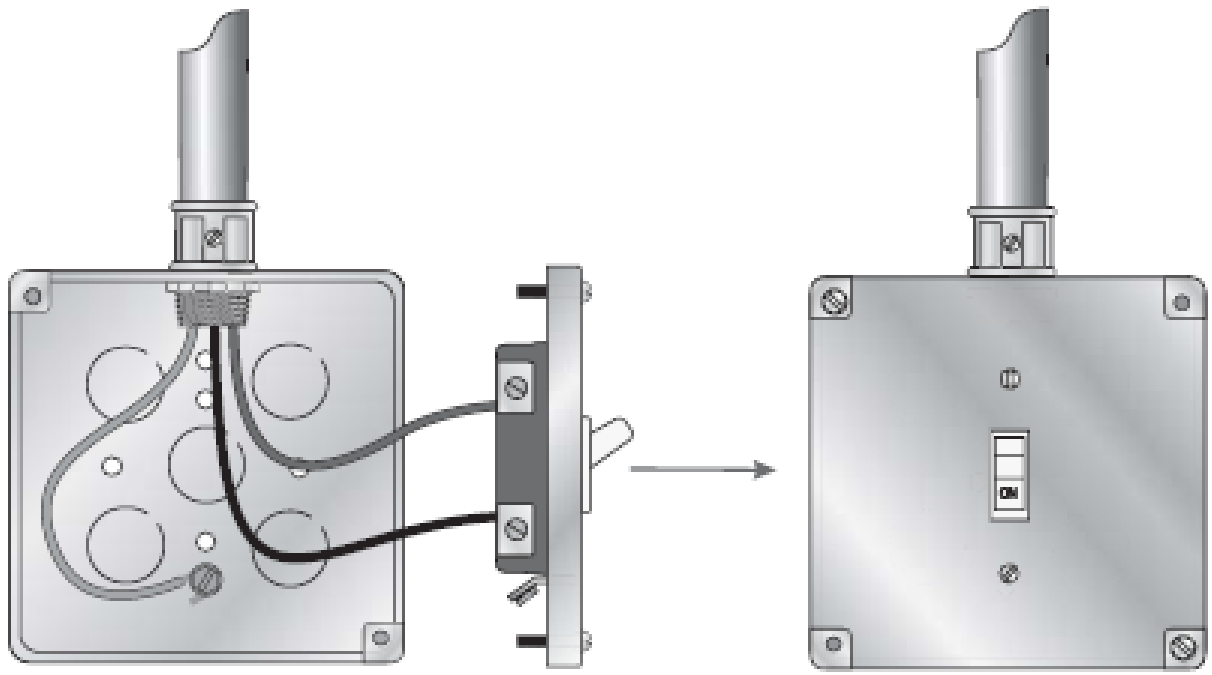
Delete the term “or outside a building” from the Section so that it will read: “Damp or Wet Locations. A surface mounted switch or circuit breaker in a damp or wet location shall be enclosed in a weatherproof enclosure or cabinet that shall comply with 312.2(A). A flush mounted switch or circuit breaker in a damp or wet location shall be equipped with a weatherproof cover. Switches shall not be installed within wet locations in tub or shower spaces unless installed as part of a listed tub or shower assembly.”



Article 404 Switches

Section 404.9(B)(1)

Revise the snap switch section to read:
“The switch is mounted with metal screws to a metal box or metal cover that is connected to an equipment grounding conductor or to a nonmetallic box with integral means for connecting to an equipment grounding conductor.”



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Article 406 – Receptacles, Cord Connectors, and Attachment Plugs (Caps)

Section 406.4(D) Receptacle Mounting; Position of Receptacle Faces. Exception Number 2

The exception was deleted:
“Listed nonmetallic faceplates that cover the receptacle face to a maximum thickness of 1mm (0.040 in.) shall be permitted.”

Article 406 – Receptacles, Cord Connectors, and Attachment Plugs (Caps)

Section 406.8(A) Receptacles in Damp or Wet Locations; Damp Locations

This section was revised impacting the last paragraph as follows: A receptacle shall be considered to be in a location protected from the weather where located under roofed open porches, canopies, marquees, and the like, and will not be subjected to a beating rain or water runoff. All nonlocking 15- and 20- ampere, 125- and 250-volt receptacles shall be a listed weather-resistant type.

FPN: The types of receptacles covered by this requirement are identified as 5-15, 5-20, 6-15, and 6-20 in ANSI/NEMA WD 6-2002, National Electrical Manufacturers Association Standard for Dimensions of Attachment Plugs and Receptacles.

Section 406.8(B) Receptacles in Damp or Wet Locations; Wet Locations; 15 and 20 Ampere Receptacles in a Wet Location.

This section was revised to add the requirement: The receptacles conforming to the configurations shown in Figure 406.8(B) shall be Listed weather-resistant type.

Article 406 – Receptacles, Cord Connectors, and Attachment Plugs (Caps)

Section 406.8B(1) Receptacles in Damp or Wet Locations; Wet Locations; 15 and 20 Ampere Receptacles in a Wet Location

The section was revised to add an exception:
Exception: 15- and 20-ampere, 125- through 250-volt receptacles installed in a wet location and subject to routine high-pressure spray washing shall be permitted to have an enclosure that is weatherproof when the attachment plug is removed.

Article 406 – Receptacles, Cord Connectors, and Attachment Plugs (Caps)

Section 406.11 (NEW) Tamper Resistant Receptacles in Dwelling Units.

In all areas specified in 210.52, all 125-volt, 15- and 20-ampere receptacles shall be listed tamper resistant receptacles. This is a new section for the 2008 NEC.

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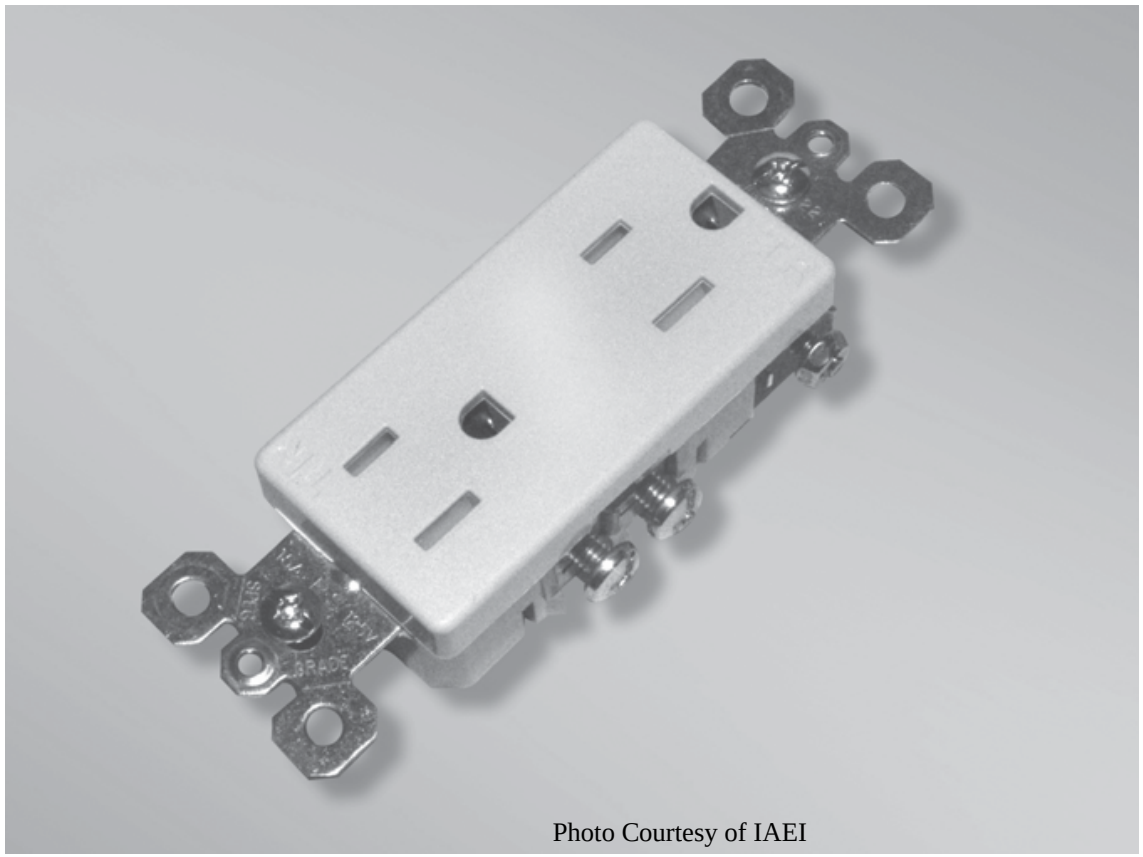

Photo Courtesy of IAEI

Article 409 – Industrial Control Panels

Section 409.2 Definitions Industrial Control Panel.

An assembly of two or more components consisting of
(a) power circuit components only, such as motor controllers, overload relays, fused disconnect switches, and circuit breakers, or
(b) control circuit components only, such as pushbuttons, pilot lights, selector switches, timers, switches, control relays, or
(c) a combination of power and control circuit components.
These components, with associated wiring and terminals, are mounted on or contained within an enclosure or mounted on a sub-panel. The industrial control panel does not include the controlled equipment.

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Article 410 – Luminaires, Lampholders and Lamps

Article 410 Luminaires, Lampholders and Lamps

The article was revised to move the definitions to 410.2 and re-number the article to accommodate this change as well as provide for future additional sections. In addition the luminaire (lighting fixture) term was revised to drop the (lighting fixture) portion.

Article 410 – Luminaires, Lampholders and Lamps

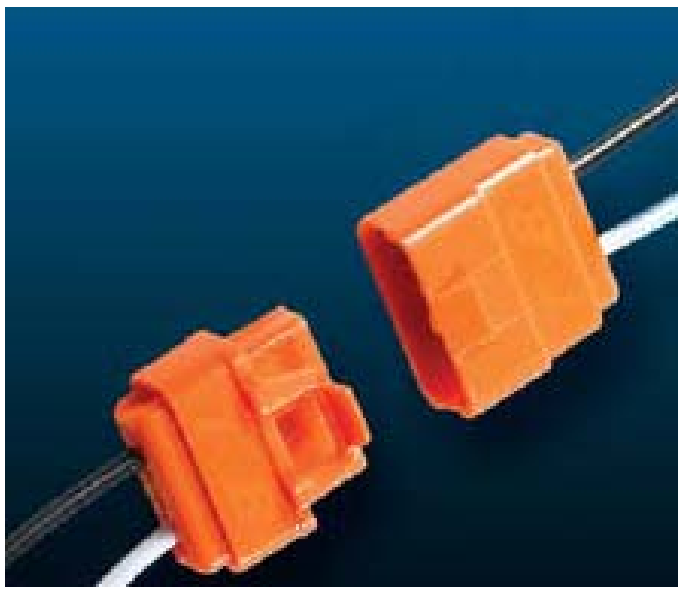
Section 410.6 Listing Requirements**.**

The section requires all luminaires and lampholders shall be listed.

Article 410 – Luminaires, Lampholders and Lamps

Section 410.130(G) Special Provisions for Electric Discharge Lighting Systems of 1,000 Volts or Less; General; Disconnecting Means

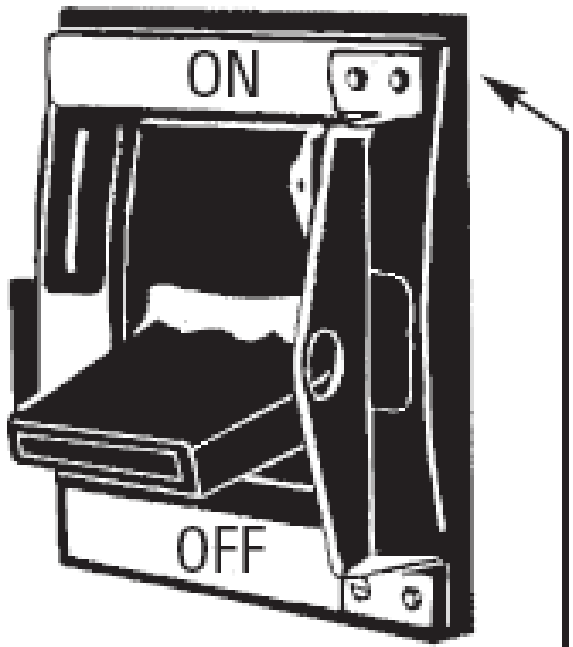
The section was revised to include the disconnecting means requirement, originally in 410.73(G). The grounded conductor must be disconnected on multi-wire branch circuits. When the disconnecting means is external to the luminaire, it shall be in sight of the luminaire. Exceptions to the requirement include hazardous locations, emergency lighting, cord/plug connected luminaires, and in industrial establishments with qualified supervision.



Article 424 Fixed Electric Space Heating Equipment

Section 424.19 Disconnecting Means

Add a sentence to the end of the Section to read:
“The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch or circuit breaker used as the disconnecting means and shall remain in place with or without the lock installed.”



The Lock-Off Device to be Permanently Mounted to the Switch or Circuit Breaker

Article 427 Fixed Electric Heating Equipment

Section 427.13 Identification.

In order to identify electrically heated pipelines, the panel changed the wording in the Section to read:
“The presence of electrically heated pipelines, vessels, or both shall be evident by the posting of appropriate caution signs or markings at intervals not exceeding 6 m (20 ft.) along the pipeline or vessel.”

Article 500 – Hazardous (Classified) Locations Class I, II, and III Divisions 1 and 2

Section 500.8 (A) Equipment; Suitability.

The section was revised as follows**:**
(A) Suitability. Suitability of identified equipment shall be determined by one of the following:
(1) Equipment listing or labeling
(2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation
(3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or an owner's engineering judgment.

Article 501 – Class I Locations

Section 501.10(B)(1)(7) Wiring Methods; Class 1 Division 2; General.

New subsection (7) was added as follows:
In industrial establishments with restricted public access where the conditions of maintenance and supervision ensure that only qualified persons service the installation and where metallic conduit does not provide sufficient corrosion resistance, Reinforced Thermosetting Resin Conduit (RTRC), factory elbows, and associated fittings all marked with suffix –XW, and Schedule 80 PVC Conduit, factory elbows, and associated fittings shall be permitted.
Where seals are required for boundary conditions as defined in 501.15 (A) (4), the Division 1 wiring method shall extend into the Division 2 area to the seal, which shall be located on the Division 2 side of the Division 1 - Division 2 boundary.
FPN: For additional information on RTRC-XW, see ANSI/UL 1684A. Supplemental Requirements for Extra Heavy Wall Reinforced Thermosetting Resin Conduit (RTRC) and Fittings.

Article 501 – Class I Locations

Section 501.15 FPN No. 3 and No. 4 Sealing and Draining

These fine print notes were added as follows:
FPN No. 3: For further information on construction, testing and marking requirements for conduit sealing fittings, see ANSI/UL 1203, Explosionproof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations.
FPN No. 4: For further information on construction, testing and marking requirements for Type MC-HL cable and Type MC-HL cable sealing fittings, see ANSI/UL 2225, Cables and Cable Fittings for Use in Hazardous (Classified) Locations .

Article 505 Class 1 Zone 0, 1 and 2 Locations

Section 505.15(C)(1) Wiring Methods; Class 1 Zone 2; General

A new section was added as follows:
(g) In industrial establishments with restricted public access where the conditions of maintenance and supervision ensure that only qualified persons service the installation and where metallic conduit does not provide sufficient corrosion resistance, Reinforced Thermosetting Resin Conduit (RTRC), factory elbows, and associated fittings all marked with suffix -XW and Schedule 80 PVC Conduit, factory elbows, and associated fittings shall be permitted. Where seals are required for boundary conditions as defined in 505.16(C)(1)(b), the Zone 1 wiring method shall extend into the Zone 2 area to the seal, which shall be located on the Zone 2 side of the Zone 1 – Zone 2 boundary.
FPN: For additional information on RTRC-XW, see ANSI/UL 1684A. Supplemental Requirements for Extra Heavy Wall Reinforced Thermosetting Resin Conduit (RTRC) and Fittings.

Article 522 – Control Systems for Permanent Amusement Attractions

Article 522 (NEW) Control Systems for Permanent Amusement Attractions.

This article was added with a scope as follows:
Scope
This article covers the installation of electrical equipment and wiring that are an integral part of a permanent amusement attraction including associated control wiring, where the conditions of maintenance and supervision ensure that qualified persons service the systems.
Control circuits and equipment associated with permanent amusement attractions, herein referred to as permanent amusement control circuits, shall comply with Article 522. Only those sections of Article 725 referenced in this article shall apply to permanent amusement control circuits.

Article 547 – Agricultural Buildings

Section 547.5(D) Wiring Methods; Flexible Connections.

The text was revised to read:
“Where necessary to employ flexible connections, dusttight flexible connectors, liquidtight flexible metallic conduit, liquidtight flexible nonmetallic conduit, or flexible cord listed and identified for hard usage shall be used. All connectors and fittings shall be listed and identified for the purpose.”

Article 547 – Agricultural Buildings

Section 547.5(G) Wiring Methods; Receptacles.

The following new text has been added at the end of 547.5 (G). “GFCI protection shall not be required for an accessible receptacle supplying a dedicated load where a GFCI protected receptacle is located within 3 feet of the non-GFCI protected receptacle.”

Article 547 – Agricultural Buildings

Section 547.10(A) Equipotential Planes and Bonding of Equipotential Planes; Where Required.

The text has been editorially revised as follows to indicate where an equipotential plane is required:
“(1) Indoors. Equipotential planes shall be installed in confinement areas with concrete floors where metallic equipment is located that may become energized and is accessible to livestock.
(2) Outdoors. Equipotential planes shall be installed in confinement areas with concrete slabs where metallic equipment is located that may become energized and is accessible to livestock.”

Article 555 – Marinas and Boatyards

Section 555.9 Electrical Connections.

The following new text has been added for electrical connections on floating piers:

"Conductor splices, within approved junction boxes, utilizing sealed wire connector systems listed and identified for submersion shall be permitted where located above the waterline, but below the electrical datum field for floating piers."

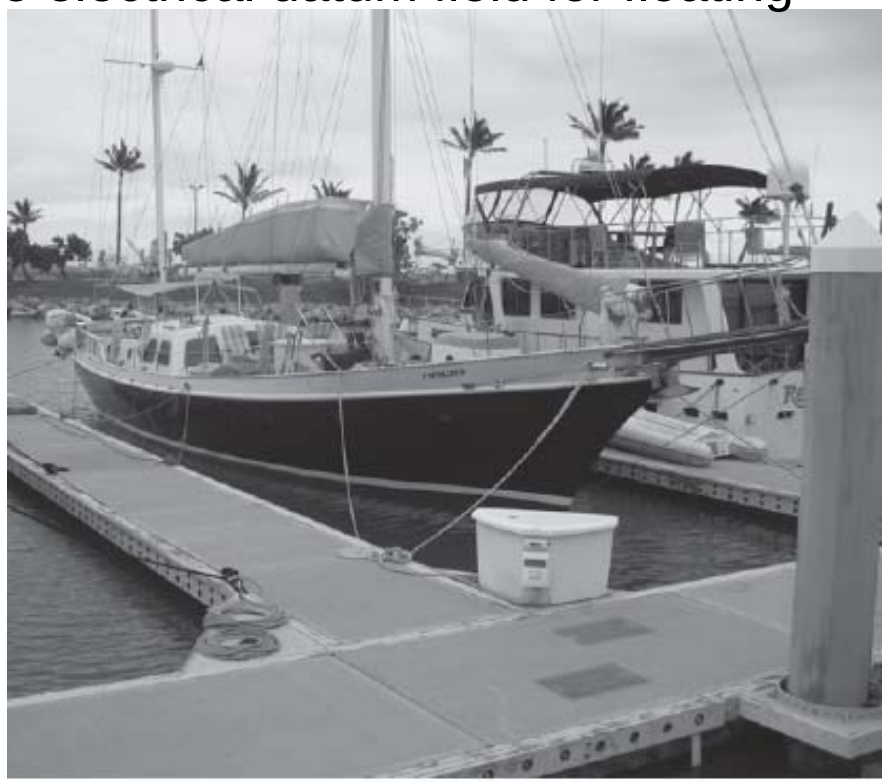


Photo courtesy of IAEI.

Article 555 – Marinas and Boatyards

Section 555.21 Motor Fuel Dispensing Stations - Hazardous (Classified) Locations.

New and expanded text replaces the 2005 requirements as follows:

(A) General.

(B) Classification of Class I, Division 1 and 2 Areas.

Photo courtesy of IAEI.

Article 600 – Electric Signs and Outline Lighting

Section 600.6(A)(1) Disconnects; Location; Within Sight of Sign.

The section was revised to include the statement, “The provision for locking or adding a lock to the disconnecting means must remain in place at the switch or circuit breaker whether the lock is installed or not. Portable means for adding a lock to the switch or circuit breaker shall not be permitted.”

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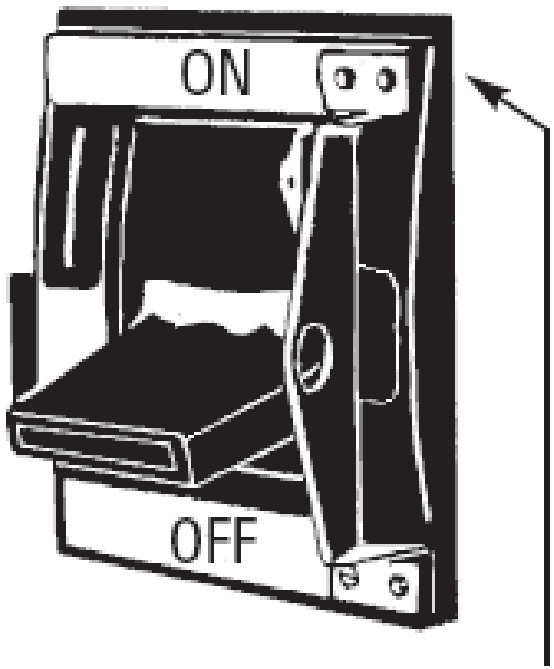

The Lock-Off Device to be Permanently Mounted to the Switch or Circuit Breaker

Article 604 – Manufactured Wiring Systems

Section 604.6 (A)(1) Construction; Cable and Conduit Types; Cables.

The existing text has been editorially reorganized and new text added:
a. Listed Type AC containing nominal 600-Volt, 8 to 12 AWG insulated copper conductors with a bare or insulated copper equipment grounding conductor equivalent in size to the ungrounded conductor.
b. Listed Type MC cable containing nominal 600-Volt, 8 to 12 AWG insulated copper conductors with a bare or insulated copper equipment grounding conductor equivalent in size to the ungrounded conductor.
c. Listed Type MC cable nominal 600 volts, 8 to 12 AWG insulated copper conductors with an aluminum grounding conductor and armor assembly identified as acceptable ground paths. The aluminum ground armor assembly shall have a current-carrying capacity equivalent to the ungrounded copper conductor.

Article 625 – Electric Vehicle Charging System Equipment

Section 625.2 Definitions.

The definition for “Electric Vehicle” has been expanded by changing “An automotive-type vehicle for highway use…” to “An automotive-type vehicle for on-road use…”.

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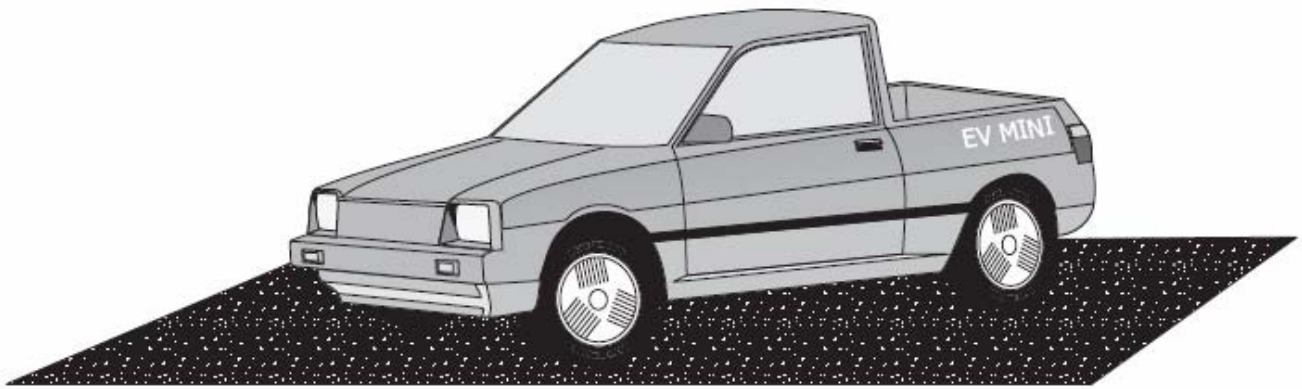
Neighborhood electric vehicles are not intended for use on highways.

Equipped with the following:

- Automotive grade headlights
- Seatbelts
- Windshield
- Brakes
- Other safety equipment

Smaller than traditional cars

- Top speed of 25 mph
- Can only be used on streets posted 35 mph speed limits
- Suitable for on-road use, not on highways



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Article 626 – Electrified Truck Parking Spaces

Article 626 (NEW) Electrified Truck Parking Spaces

This new NEC Article defines an “Electrified Truck Parking Space” as:
“A truck parking space that has been provided with an electrical system that allows truck operators to connect their vehicles while stopped, and use off-board power sources in order to operate on-board systems such as air-conditioning, heating and appliances, without any engine idling.” The scope of the article includes electrical conductors, and equipment external to the truck or transport refrigerated unit that connect trucks and transport refrigerated units to a supply of electricity, and the installation of equipment and devices related to electrical installations within an electrified truck parking space.”

Article 680 Swimming Pools, Fountains and Similar Installations

Section 680.21(A)(3) Motors; Wiring Methods; Flexible Connections.

This is an editorial change to add the term “liquidtight flexible” to the requirement. The new Section wording shall read:
“Where necessary to employ flexible connections at or adjacent to the motor, liquidtight flexible metal or liquidtight flexible nonmetallic conduit with approved fittings shall be permitted.”

Article 680 Swimming Pools, Fountains and Similar Installations

Section 680.43(D)(3) Indoor Installations; Bonding.

Editorial change to replace the term “conduit” with “raceway.” The new wording will read:
“Metal raceway and metal piping that are within 1.5 m (5 ft.) of the inside walls of the spa or hot tub and that are not separated from the spa or hot tub by a permanent barrier.”

Photo courtesy of IAEI.

Article 680 Swimming Pools, Fountains and Similar Installations

Section 680.74 Bonding

Revise the wording to read:
“All metal piping systems and all grounding metal parts in contact with the circulating water shall be bonded together using a solid copper bonding jumper, insulated, covered or bare, not smaller than 8 AWG. The bonding jumper shall be connected to the terminal or the circulating pump motor that is intended for this purpose. The bonding jumper shall not be required to be connected to a double insulated circulating pump motor. The 8 AWG or larger solid copper bonding jumper shall be required for equipotential bonding in the area of the hydromassage bathtub and shall not be required to be extended or attached to any remote panelboard service equipment or any electrode.”

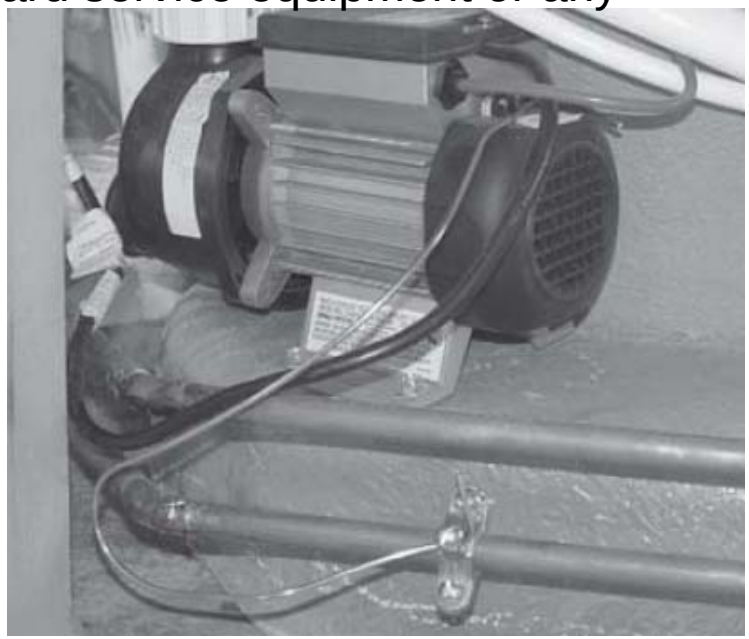


Photo courtesy of IAEI.

Article 682 Natural and Artificially Made Bodies of Water

Section 682.13 Wiring Methods and Installation.

The Section wording was expanded to read:
“Liquidtight flexible metal conduit or liquidtight flexible nonmetallic conduit with approved fittings shall be permitted for feeders and where flexible connections are required for services. Extra hard usage portable power cable listed for both wet locations and sunlight resistance shall be permitted for a feeder or a branch circuit where flexibility is required. Other wiring methods, suitable for the location shall be permitted to be installed where flexibility is not required. Temporary wiring in accordance with 590.4 shall be permitted.”

Article 690 – Solar Photovoltaic Systems

Section 690.31 (F) (New) Methods Permitted; Flexible, Fine-Stranded Cables.

A new Sub-section was added:
“Flexible, fine-stranded cables shall only be terminated with terminals, lugs, or connectors that are identified and listed for such use.”

Article 690 – Solar Photovoltaic Systems

Section 690.43 Equipment Grounding.

The following additional requirements have been added:
“An equipment grounding conductor is required between a PV array and other equipment as specified in Section 250.110.”

“Devices listed and identified for grounding the metallic frames of PV modules are permitted to ground the exposed metallic frames of PV modules to grounded mounting structures. Devices identified and listed for bonding the metallic frames of PV modules are permitted to bond the exposed metallic frames of PV modules to the metallic frames of adjacent PV modules. Equipment grounding conductors for the PV array and structure (when required) shall be contained within the same raceway or cable, or otherwise run with the PV array circuit conductors when those circuit conductors leave the vicinity of the PV array.”

Article 700 – Emergency Systems

Section 700.9(D) Fire Protection.

Feeders for essential electrical systems for hospitals and health care facilities have been added to the list of occupancy classes in 700.9(D).

Photo courtesy of IAEI.

Article 708 Critical Operations Power Systems

Section 708.1 Scope

“The provisions of this article apply to the installation, operation, monitoring, control, and maintenance of the portions of the premises wiring system intended to supply, distribute and control electricity to be designated critical operations areas (DCOA) in the event of disruption to elements of the normal system. Critical operations power systems are those systems so classed by municipal, state, federal, or other codes, by any governmental agency having jurisdiction, or by facility engineering documentation establishing the necessity for such a system. These systems include but are not limited to power systems, HVAC, fire alarm, security, communications and signaling for designated critical operations areas.”

Photo courtesy of IAEI.

Article 725 Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power Limited Circuits

Section 725.8 Mechanical Execution of Work

Add “cable ties” to the list of supporting methods in class 1, class 2 and class 3 circuits.

Article 725 Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power Limited Circuits

Section 725.26(B)(4) Conductors of Different Circuits in the Cable, Cable Tray, Enclosure or Raceway, Class 1 Circuits with Power Supply Circuits; In Cable Trays.

“Installations in cable trays shall comply with 725.26(B)(4)(1) or 725.26(B)(4)(2).

(1) Class 1 circuit conductors and power-supply conductors not functionally associated with Class 1 circuit conductors shall be separated by a solid fixed barrier of a material compatible with the cable tray.

(2) Class 1 circuit conductors and power-supply conductors not functionally associated with the Class 1 circuit conductors shall be permitted to be installed in a cable tray without barriers where all of the conductors are installed within separate multiconductor Type AC, Type MC, Type MI or Type TC cables and all of the conductors in the cables are insulated at 600 volts.”

Article 725 Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power Limited Circuits

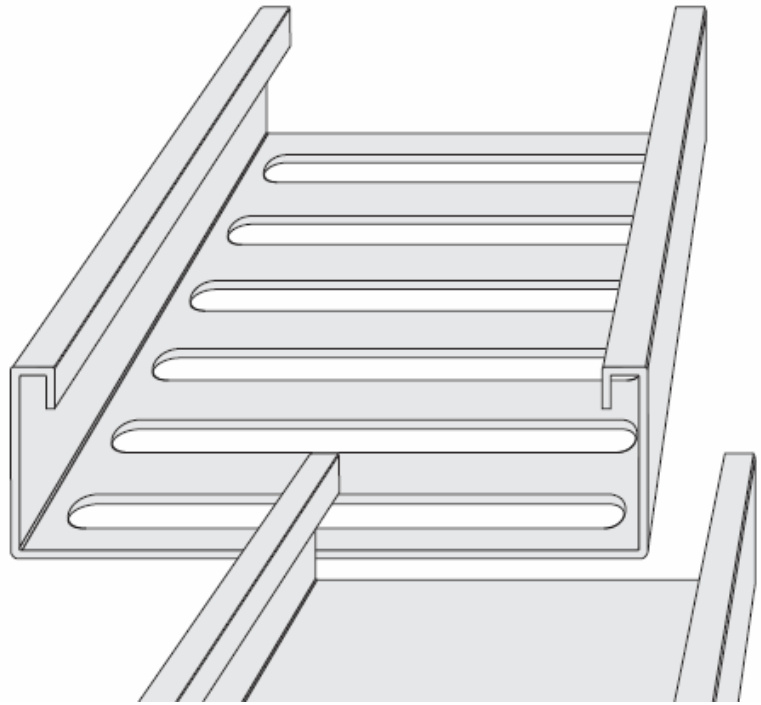
Section 725.56(E) Installation of Conductors of Different Circuits in the Same Cable, Enclosure, or Raceway; Class 2 or Class 3 Cables with Other Circuit Cables.

Include the term “cable tray” with the terms enclosure and raceway where jacketed cables of Class 2 or Class 3 circuits are permitted with jacketed cables covered by Articles 760, 770, 800, 820 and 830.

Article 725 Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power Limited Circuits

Section 725.61(C) Applications of Listed Class 2, Class 3 and PLTC Cables; Cable Trays.

“Cables installed in cable trays outdoors shall be Type PLTC. Cables installed in cable trays indoors shall be Type PLTC, CL3P, CL3, CL2P, and CL2.”
“Listed general-purpose signaling raceways, listed riser signaling raceways and listed plenum signaling raceways shall be permitted for use with cable trays.”



Article 725 Class 1, Class 2 and Class 3 Remote-Control, Signaling and Power Limited Circuits

Section 725.61(D)(4) Applications of Listed Class 2, Class 3 and PLTC Cables; Hazardous (Classified) Locations; In Industrial Establishments.

Delete the text that states that PLTC cable must comply with the crush and impact requirements of Type MC Cable and is identified for such use.

Article 727 Instrumentation Tray Cable: Type ITC

Section 727.4(6) Uses Permitted

Delete the requirement that ITC cable between cable tray and equipment can not exceed 15 m (50 ft.) in length.

Article 760 Fire Alarm Systems

Section 760.8 Mechanical Execution of Work

Add “cable ties” to the list of supporting methods in fire alarm circuits.

Article 760 Fire Alarm Systems

Section 760.56 Installation of Conductors of Different PLFA Circuits, Class 2, Class 3, and Communications Circuits in the same Cable, Enclosure or Raceway.

Include the term “cable tray” with the terms enclosure and raceway where cable can be safely installed.
Audio system circuits described in 640.9(C) and installed using Class 2 or Class 3 wiring methods in compliance with 725.54 and 725.61 shall not be permitted to be installed in the same cable, cable tray, or raceway with power limited conductors or cables.

Article 770 – Optical Fiber Cables and Raceways

Section 770.48 (NEW) Unlisted Cables Entering Buildings.

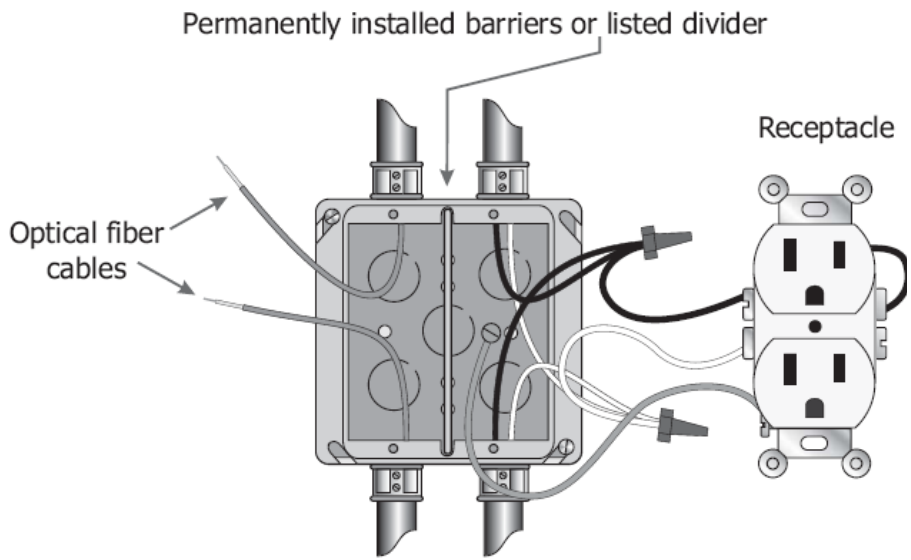
Revise to read as follows: This new section relocates the two exceptions in Section 770.113 of the 2005 NEC that address the limited use of unlisted, conductive and nonconductive outside plant optical fiber cables and their entry into buildings.

Article 770 – Optical Fiber Cables and Raceways

Section 770.133(A), Exception 5 (NEW) Installation of Optical Fibers And Electrical Conductors: With Conductors For Electric Light, Power, Class 1, Non-Power Limited Fire Alarm, or Medium Power Network – Powered Broadband Communications.

Optical fiber cable is permitted to share the same raceway, outlet box or enclosure…

"Where all of the conductors of electric light, power, Class 1, nonpower-limited fire alarm, and medium power network-powered broadband communications circuits are separated from all of the optical fiber cables by a permanent barrier or listed divider."



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Article 800 – Communications Circuits

Section 800.2 Definitions. (NEW)

The following new definition has been added:
“Communications Circuit. The circuit that extends voice, audio, video, data, interactive services, telegraph (except radio), outside wiring for fire alarm and burglar alarm from the communications utility to the customer’s communications equipment up to and including terminal equipment such as telephone, fax machine or answering machine.”

In addition, the definition “Communications Equipment” was moved to Article 100.

Article 800 – Communications Circuits

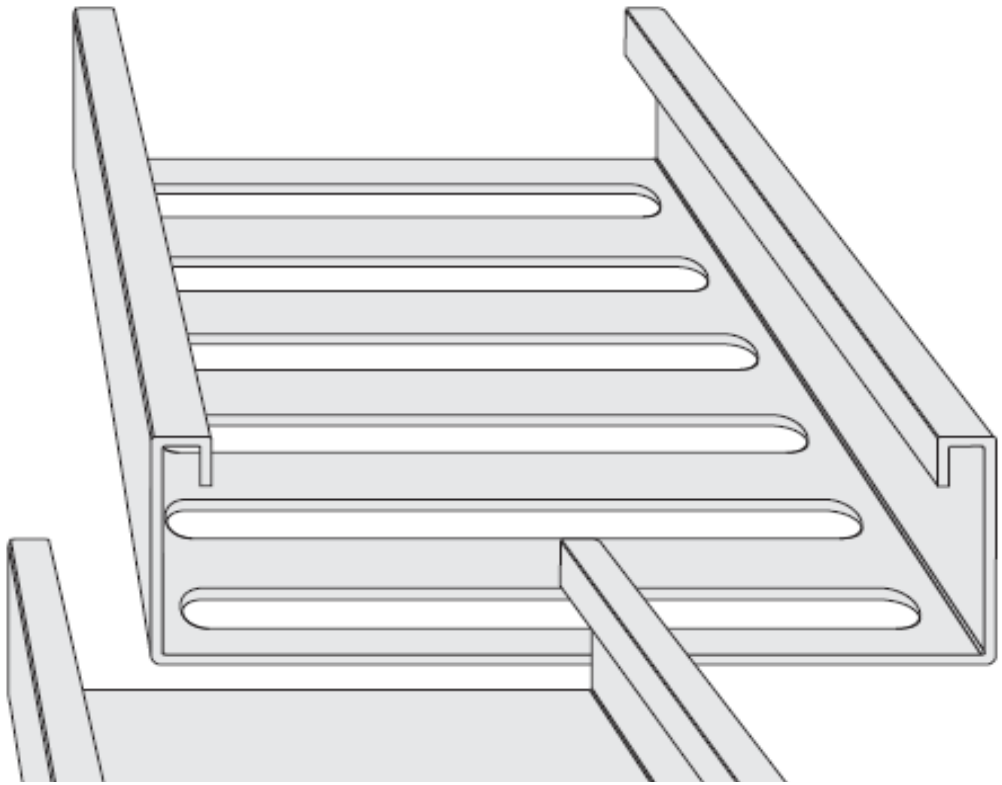
Section 800.48 (NEW) Unlisted Cables Entering Buildings.

This new section relocates the two exceptions in Section 800.113 of the 2005 NEC that address the limited use of unlisted, conductive and nonconductive outside plant cables and their entry into buildings.

Article 800 – Communications Circuits

Section 800.133 (A)(1) Installation of Communications Wires, Cables, and Equipment; Separation from Other Conductors; In Raceways, Cable Trays, Boxes, and Cables.

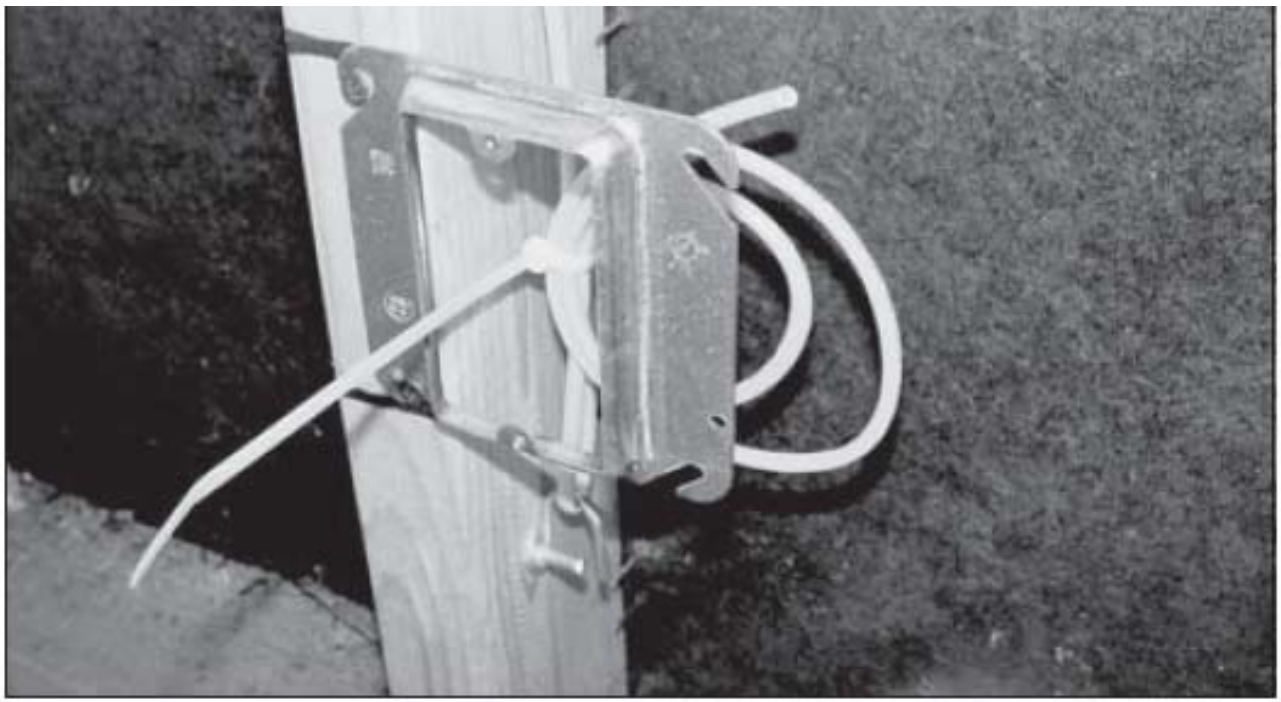
Added the term “Cable Trays” to the title of Sub-section 800.133 (A)(1).



Article 800 – Communications Circuits

Section 800.156 (NEW) Dwelling Unit Communications Outlet.

For new construction, a minimum of one communications outlet shall be installed within the dwelling and cabled to the service provider demarcation point.



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Article 810 – Radio and Television Equipment

Section 810.21(D) Grounding Conductors-Receiving Stations; Mechanical Protection.

The grounding conductor shall be protected where exposed to physical damage.

Photo courtesy of IAEI.

Article 820 – Community Antenna Television and Radio Distribution Systems

Section 820.48 (NEW) Unlisted Cables Entering Buildings.

This new section relocates Exception No. 2 from Section 820.113 of the 2005 NEC that addresses the limited use of unlisted outside plant coaxial cables and their entry into buildings.

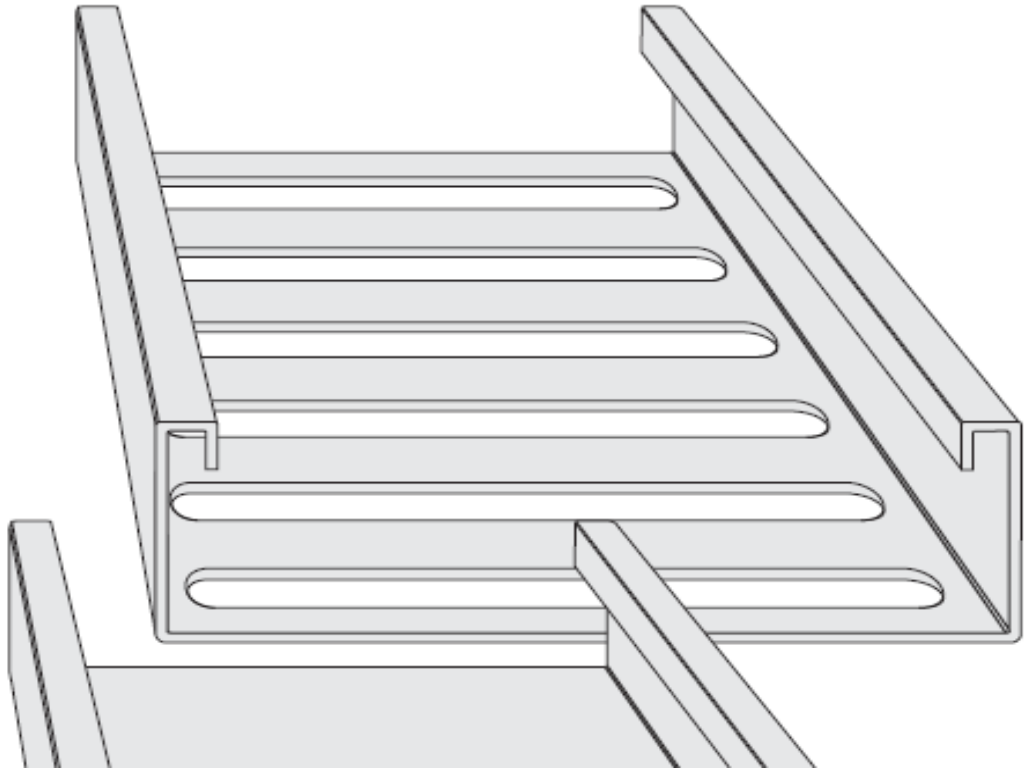
"Unlisted outside plant coaxial cables shall be permitted in building spaces other than risers, air ducts, concealed spaces, plenums, and other spaces used for environmental air, where the length of the cable within the building, measured from its point of entrance, does not exceed 15 m (50 ft) and the cable enters the building from the outside and is terminated at a grounding block.

FPN No. 1: This section limits the length of unlisted outside plant cable to 15 m (50 ft) while 820.93 requires that the outer conductive shield of the coaxial cable be grounded at the building premises as close to the point of cable entrance or attachment as practicable. Therefore, the outside plant coaxial cable may be permitted to extend 15 m (50 ft) into the building if it is practicable to ground the outer conductive shield closer than 15 m (50 ft) from the entrance point.
FPN No. 2: See 820.2 for the definition of point of entrance.
FPN No. 3: See 820.2 for the definition of air duct.
FPN No. 4: See Article 100 for the definition of plenum.
FPN No. 5: See 300.22 (c) for information on other spaces used for environmental air."

Article 820 – Community Antenna Television and Radio Distribution Systems

Section 820.133 (A)(1) Installation of Cables and Equipment; In Raceways, Cable Trays and Boxes.

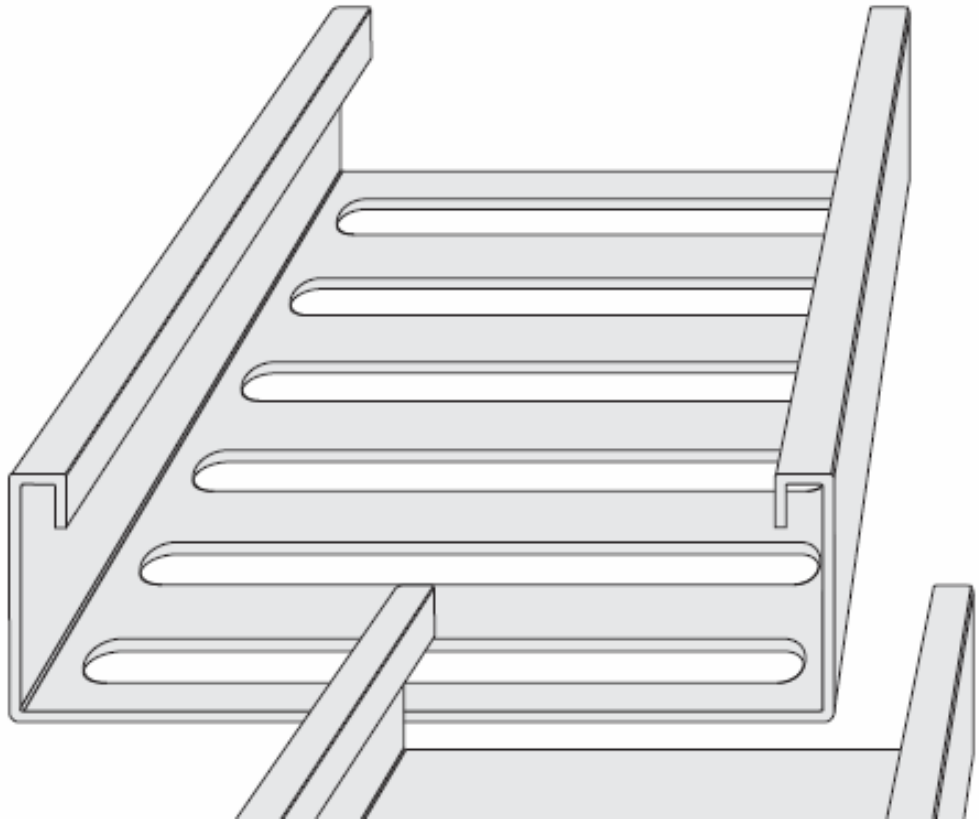
Added the term “Cable Tray” to the title of Sub-section 820.133 (A)(1).



Article 830 – Network-Powered Broadband Communications Systems

Section 830.133 (A)(1) Installation of Network-Powered Broadband Communications Cables and Equipment; In Raceways, Cable Trays and Enclosures.

Added the term “Cable Trays” to the title of Sub-section 830.133 (A)(1).



QUESTIONS

Thank You