

6330201 COMMUNICATION CABLE  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Malcolm Tomatani  
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Comments: (12-21-20, Internal)

SUBARTICLE 633-2.1.1.6 is deleted and the following substituted:

→ → → **633-2.1.1.6 Ripcord:** Ensure that the cable contains at least one ripcord under the sheath or alternate method that allows the removal of the sheath by hand or with pliers. Ensure that the ripcord permits the removal of the sheath by hand or with pliers.

SUBARTICLE 633-2.1.3 is deleted and the following substituted:

→ → **633-2.1.3 Cable Terminations:** Use Type LC connectors for all new network installations. Use Type ST, SC, LC, or FC connectors only; for connections to existing equipment or as as specified in the Plans or by the Engineer. Ensure that all LCST-type fiber optic connectors, whether factory-pre-terminated or field-installed, are 0.051 inch physical.

→ → **633-3.1.5 Fiber Optic Connection -- Splicing:** Perform all optical fiber splicing using the fusion splicing technique, and according to the latest version of the manufacturer's cable installation procedures; industry accepted installation standards, codes, and practices; or as directed by the Engineer. Ensure that all splices match fiber and buffer tube colors unless shown otherwise in the Plans. Where a fiber cable is to be accessed for lateral or drop signal insertion, only open the buffer tube containing the fiber to be accessed and only cut the actual fiber to be accessed. If a fiber end is not intended for use, cut the fiber to a length equal to that of the fiber to be used and neatly lay it into the splice tray. Treat any fibers exposed during splicing with a protective coating and place in a protective sleeve or housing to protect the fiber from damage or contaminants. Neatly store all splice enclosures within a splice box. Attach the splice enclosure to the splice box interior wall to prevent the enclosure from lying on the bottom of the splice box. Splices shall be made only at locations as showing in the plans.

Comments on the right side of the page include:

- Malcolm Tomatani December 21, 2020: Delete.
- Malcolm Tomatani: Rebecca— Please check if the following temperature changes were in the draft that was sent over. 633-2.1.1.9 Performance Requirements: 633-2.1.1.9.1 Operating Temperature: Ensure that the shipping and the operating temperature range of fiber optic cable meets or exceeds minus 40° to 158° Ensure that the installation temperature range of fiber optic cable meets or exceeds minus 22° to 120°F.
- Malcolm Tomatani: Removed extra "as".
- Malcolm Tomatani: Changed "showing" to "shown".

Response: Thank you for the comment. Change made.

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Comments: (12-22-21, Internal)

→ → **633-3.1.5 Fiber Optic Connection -- Splicing:** Perform all optical fiber splicing using the fusion splicing technique, and according to the latest version of the manufacturer's cable installation procedures; industry accepted installation standards, codes, and practices; or as directed by the Engineer. Ensure that all splices match fiber and buffer tube colors unless shown otherwise in the Plans. Where a fiber cable is to be accessed for lateral or drop signal insertion, only open the buffer tube containing the fiber to be accessed and only cut the actual fiber to be accessed. If a fiber end is not intended for use, cut the fiber to a length equal to that of the fiber to be used and neatly lay it into the splice tray. Treat any fibers exposed during splicing with a protective coating and place in a protective sleeve or housing to protect the fiber from damage or contaminants. Neatly store all splice enclosures within a splice box. Attach the splice enclosure to the splice box interior wall to prevent the enclosure from lying on the bottom of the splice box. Splices shall be made only at locations as showing in the plans.

Comments on the right side of the page include:

- Arnold, Scott: shown

Response: Thank you for the comment. Change made.

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Comments: (1-4-21, Industry)

Section 633-5 1. Is this intent to locate ALL fiber optic facilities within the project limits, even private companies such as Comcast or AT&T? 2. The section mentions subsurface work so the assumption is that this will also include directional boring or open trenching. Is that assumption correct? a. If yes, please ensure an estimation technique is provide for designers as I could

envision possible issues quantifying this for a project of several miles where multiple fiber agencies exist with some other present in parts of the project limits. In urban arterial environments there are typically several agencies that have fiber optic facilities present therefore that would also need to be considered.

Response: 1) Only Department owned and maintained fiber optic is required to be located under this specification. We have updated the language to clarify this requirement. Privately owned facilities will be located under Sunshine One-call 811. 2) The intent is to ensure the fiber is located before any subsurface work occurs. The estimation and design aspects should be covered in an upcoming bulletin.

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