

# **RULON LINEAR OPEN SUSPENDED WOOD CEILING SYSTEMS (6" MODULE)**

## **ARCHITECTURAL SPECIFICATIONS**

### **PART 1 - GENERAL**

- A. The natural wood ceiling systems covered by this specification shall be the products of the Rulon International, World Commerce Center, 2000 Ring Way Road, St. Augustine, FL 32092. Phone: 800-227-8566, 904-584-1400, Fax: 904-584-1499, www.rulonco.com.
- B. The General Conditions and the requirements of Division 1 of the specifications shall apply to all work hereunder.
- C. All work shall be completed in accordance with the manufacturer's instructions, and in a manner satisfactory to the owner's representative.

#### **1.01 SCOPE**

- A. Rulon International shall furnish a suspension cliprail system with attached clips, and Linear Wood Strips. Designated accessories necessary to complete installation furnished by the contractor - in compliance with plans and specifications.

#### **1.02 RELATED WORK NOT INCLUDED UNDER THIS SECTION**

- A. Suspension systems and components for ceilings, other than manufacturer's Linear Suspended Wood Ceiling System, are not included.

#### **1.03 QUALITY ASSURANCE**

- A. **Installer Qualifications:** The installer must be a firm with a minimum of two (2) years of successful experience in installation of suspended wood ceilings of similar requirements to this project. The installer must be acceptable to the architect, manufacturer, and owner's representative.
- B. **Fire Performance Characteristics:** When specified as "Fire Resistant", wood ceiling boards shall conform to Class 1, or A flame spread rating, when tested according to ASTM E-84.
- C. **Environmental Standards:** When required the wood ceiling shall originate from well managed forests as certified by accredited and recognized industry certifying organizations.

#### **1.04 PROJECT CONDITIONS**

- A. Installation shall be done only when the temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. The heating and cooling systems shall be operating before, during, and after installation, with the humidity of the interior spaces maintained between 25% and 55%, temperature between 60 to 90 degrees F.
- B. It is important that plenums have proper ventilation, especially in high moisture areas. There shall be no excessive build up of heat in the ceiling areas.
- C. Prior to the start of installation, all exterior windows and doors are to be in place, glazed, and weather-stripped. The roof is to be watertight, and all wet trades' work is to be completed, and thoroughly dry.
- D. Mechanical, electrical, and other utility service installations above the ceiling plane shall have been completed. No materials should rest against, or wrap around, the ceiling suspension components or connecting hangers.

#### **1.05 COORDINATION OF WORK**

- A. Layout and installation of the Linear Ceiling and its suspension system shall be coordinated with other work penetrating through the ceiling. This includes light fixtures, HVAC equipment, and fire suppression system components.

#### **1.06 SUBMITTALS**

- A. Product Data: Rulon International shall provide product specifications and installation instructions for all supplied ceiling materials.
- B. Shop Drawings: When required, Rulon International shall supply shop drawings showing the placement of hangers, the location of cliprails, and other details deemed pertinent to proper installation.
- C. Samples: A 12" (305mm) wide x 12" (305mm) long wood sample shall be submitted for approval. The sample shall be made of the wood specie selected, with the selected finish applied; and installed on cliprails.

#### **1.07 DELIVERY, STORAGE, and HANDLING**

- A. All materials shall be delivered to the project site in the original, labeled, unopened packages.
- B. Materials shall be stored flat and level in a fully enclosed space. For a minimum of seventy-two (72) hours immediately prior to ceiling installation, the Linear Wood Strips shall be stored in the room in which they will be installed. The temperature and humidity of the room shall closely approximate those conditions that will exist when the building is occupied. Linear Wood Strips shall be stored off the floor.

- C. Care in handling must be exercised to avoid damage.

## **1.08 WARRANTIES**

- A. Manufacturer: All materials supplied by the ceiling manufacturer shall be guaranteed against manufacturing defects for one (1) year. Because of differing site conditions, wood stains and colorings can vary with age, and are excluded from this warranty.
- B. Contractor: All work shall be guaranteed for one (1) year from final acceptance of completed work.

## **PART 2 - PRODUCTS**

### **2.01 WOOD STRIPS**

- A. Linear Wood Strips shall be manufactured by Rulon International, St. Augustine, Florida, PH-1-800-227-8566, 904-584-1400. Linear Wood Strips shall be made from prime grade, all-natural [specie] with a [selected] finish. They shall be manufactured in random lengths with tongue-and-groove ends, or in nominal fixed lengths depending on area dimensions.
- B. Interior Areas: For interior ceiling areas, the Linear, Open Style shall be a 6" (152mm) module, having wood strips 3/4" (19mm) thick x 5-1/4" (133mm) wide, and having a 3/4" (19mm) reveal with a factory-installed fiberfelt spacer between the wood strips. The Open Style fiberfelt spacer is provided in a standard black color.
- C. Exterior Areas: For exterior ceiling areas, the Linear, Open Style shall be a 6" (152mm) module, having wood strips 3/4" (19mm) thick x 5-1/4" (133mm) wide, and having a 3/4" (19mm) reveal. Loose hardboard (ABS) spacers shall be provided by Rulon which are to be placed between the wood strips during installation. The hardboard spacer is provided in a standard black color.
- D. Wood is a natural product that will undergo changes with variations in the environment. Therefore, all dimension tolerances are  $\pm 1/8"$  (3mm).

### **2.02 SUSPENSION SYSTEMS**

- A. The suspension system shall consist of Rulon's cliprails, installed on #12-gauge wire hangers.

### **2.03 EDGES, BORDERS, and PERIMETER TRIMS**

- A. Edges, borders, and perimeter trims shall be designated by specifier in accordance with standard design details available. All wood ceiling products specified shall be supplied by the ceiling manufacturer.

## 2.04 FINISHES and COLORS

- A. All Linear Wood Strips shall be factory-finished with clear sealers, wood stains, or semi-transparent color treatments as selected. All finishes shall be selected by the designer, architect, or designated owner's representative.
- B. Wood is a natural product with variations in grain, texture, and color - often ranging from light to dark - thereby, affecting the surface look. Product finishes are stain or sealer coats, spray-applied to a smooth-sanded surface.

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Ceiling Layout: The contractor shall measure ceiling areas and establish the layout of the hangers and cliprails, in accordance with installation instructions.
- B. Coordination: The contractor shall furnish the layout for supports that shall be installed for suspension of ceilings. He shall furnish concrete inserts, steel deck hanger clips, or similar devices for installation, in time to coordinate the work.

### 3.02 INSTALLATION

- A. General: The contractor shall install materials in accordance with Rulon International printed instructions. The contractor will comply with applicable regulations and industry standards.
- B. Perimeters: Using a leveling device, the contractor shall lay out and install perimeter trim, as specified.
- C. Suspensions: The contractor shall install suspension systems to comply with appropriate industry standards. The contractor shall locate cliprails perpendicular to wood direction, 4" (102mm) from one wall for the first cliprail, continuing 24" (610mm) maximum, on center, ending within 4" (102mm) of the opposite wall. #12-Gauge Wire hangers shall be installed 4' (1219mm) on center, along each cliprail. The wire hangers shall be attached to inserts, screw eyes, or other connecting devices that are secure and appropriate for suspending the ceiling and that will not deteriorate or fail with age or elevated temperatures.
- D. Wood Strip Installation: The contractor shall use the Rulon clamping tool to snap wood strips onto cliprails. The clips, which are attached to the cliprail, have projections that insert into grooves cut into the back side of the wood strips. Proper tool adjustment is important to assure that the clips achieve a deep seat within the wood grooves. Installation shall proceed, in sequence, from one wall to the opposite side.

When installing Linear Open Style ceilings with fiberfelt spacer, the contractor shall hang wood strips with felt edge facing the area yet to be filled. When installing Linear Open Style ceilings with hardboard spacer, the contractor shall hang a wood strip, then insert the hardboard spacer in the notched area on the back of the board with spacer edge facing the area yet to be filled. Then the next board may be installed over the spacer.

- E. HVAC and Light Fixture Suspensions: Electrical and mechanical installations must be supported independently of the linear wood ceiling

### **3.03 ADJUSTMENT, CLEANING, and REPAIR**

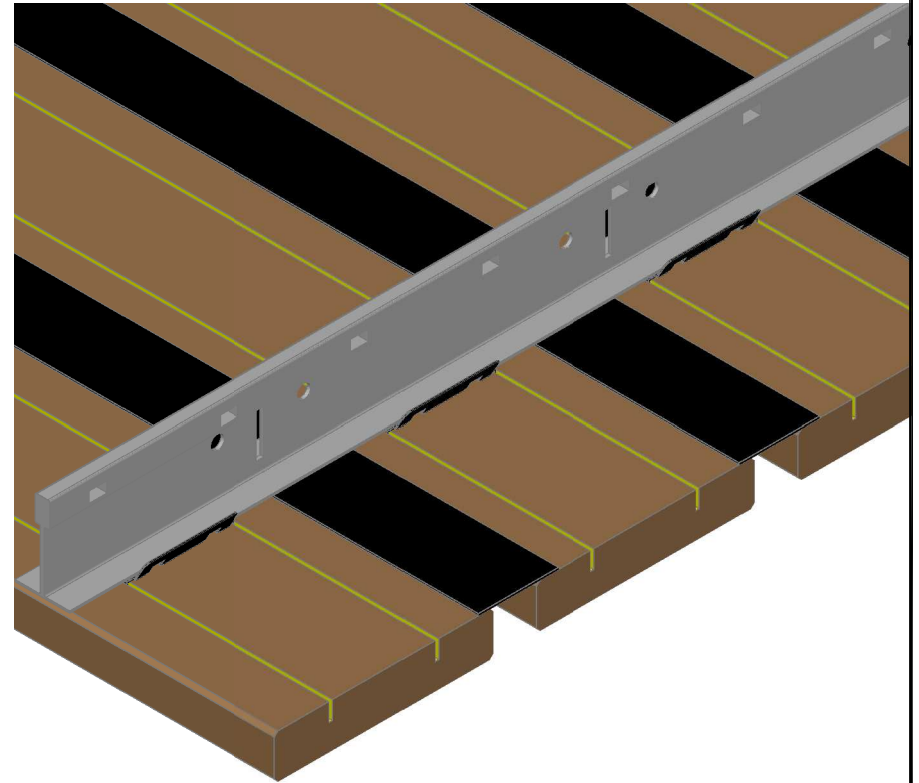
- A. Contractor shall make final adjustments to level or contours.
- B. Upon completion of ceiling installation, all Linear Wood Strips and borders shall be cleaned free of dirt, dust, grease, oils, and fingerprints.
- C. All work that cannot be successfully cleaned or repaired, shall be removed and replaced.


### **3.04 INSPECTION**

- A. Upon completion of ceiling installation, the owner's representative shall inspect all finished surfaces to ensure that the work has been completed in a manner satisfactory to the owner. Any deficiencies in the installed ceiling shall be corrected by the contractor at no additional cost to the owner, or to the ceiling manufacturer.

<u>DRAWING #</u>	<u>TITLE</u>
LOCXF001	Linear Open Ceiling Profile - 4½" [114 mm] Module w/Fiberfelt Spacers
LOCXF002	Ceiling Board Installation Method - Linear Open Style
LOCXF003	Cliprail Installation Detail - Linear Open Style
LOCXF004	Perimeter Detail - Linear Open Style
LOCXF005	Board Connection Detail - Linear Open Style
LOCXF006	Access Panel Detail - Linear Open Style
LOCXF007	Sprinkler Detail - Linear Open Style
LOCXF008	Recessed Can Light Detail - Linear Open Style
LOCXF009	Strip Light Fixture Detail - Linear Open Style
LOCXF011	Seismic Detail - Linear Open Style
LOCXF013	Cliprail Radius Detail - Linear Open Style
LOCXF015	Direct Mounting Detail - Ceiling - L-Bracket Method - Linear Open Style

<u>DRAWING #</u>	<u>TITLE</u>
LOC6F001	Linear Open Ceiling Profile - 6" [152 mm] Module w/Fiberfelt Spacers
LOCXH001	Linear Open Profile - 4½" [114 mm] Module w/Hardboard Spacers



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FACTORY-ATTACHED  
CLIPS. PRE-POSITIONED  
FOR EASE OF  
INSTALLATION.

RULON CLIPRAIL  
(FURNISHED IN  
12' [3658 mm]  
LENGTHS.)

3¾" [95 mm]

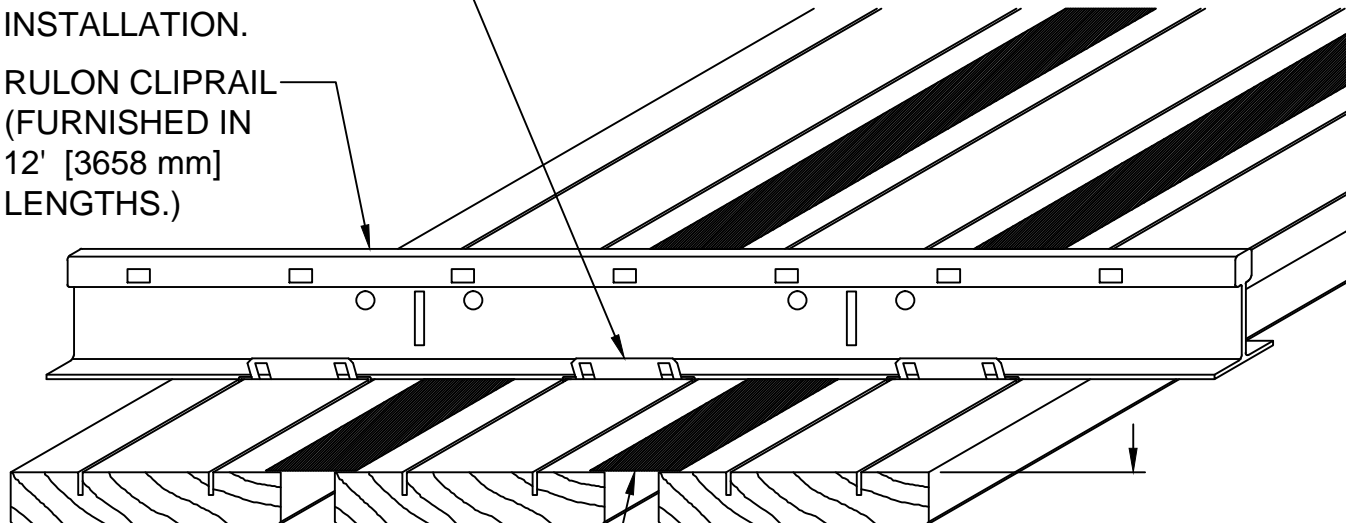
¾" [19 mm]

¾" [19 mm]

4½" [114 mm]

BLACK FIBERFELT SPACER  
(FACTORY-ATTACHED TO  
ONE BOARD)

LINEAR BOARD



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PROJECT:

TITLE: Linear Open Ceiling Profile -  
4½" [114 mm] Module w/Fiberfelt  
Spacers

ISSUE DATE:

REVISION DATE:

SEP/17/2012

DRAWN BY:

CAP

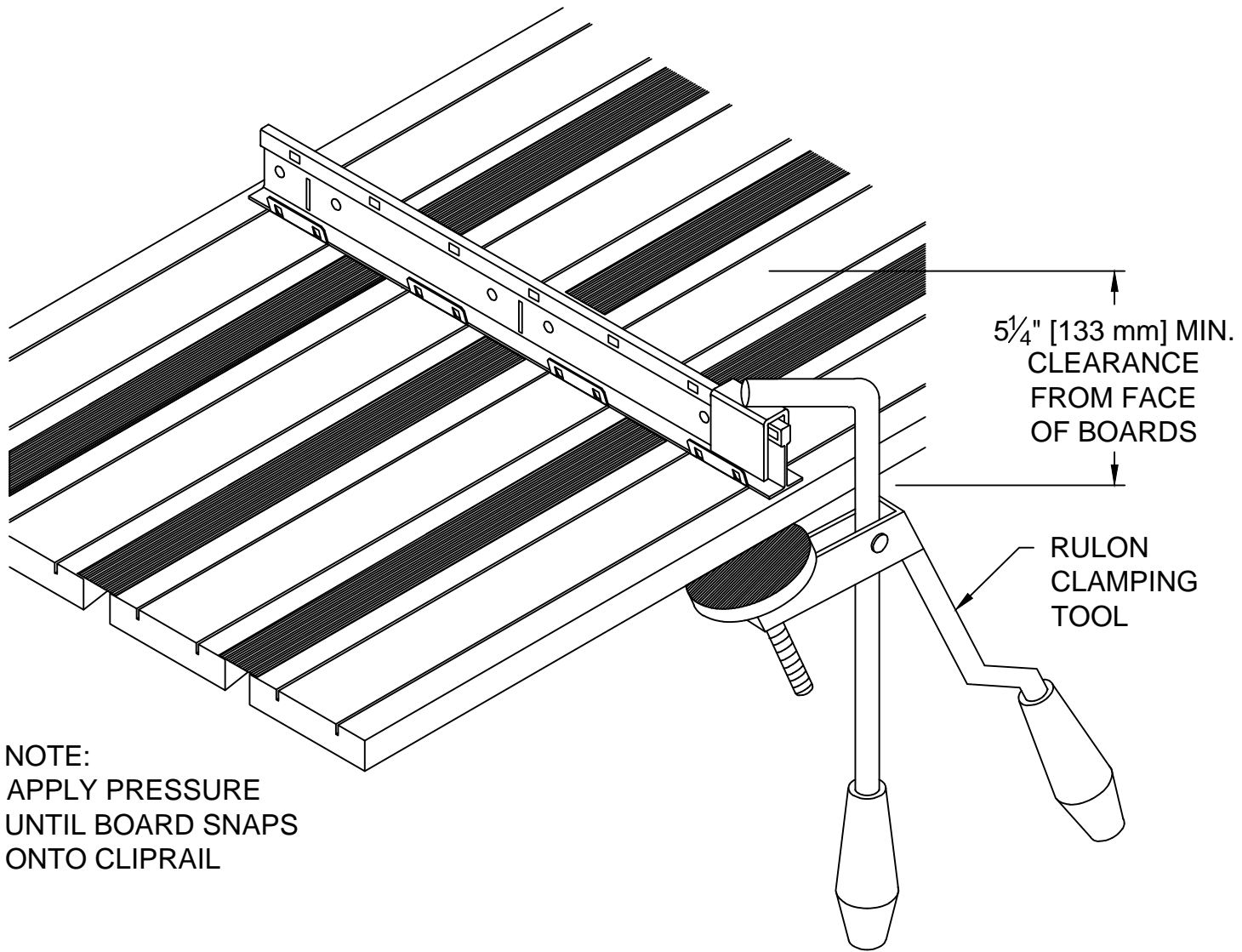
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DRAWING NUMBER:

LOCXF001



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PROJECT:

TITLE: **Ceiling Board Installation Detail -  
Linear Open Style**

ISSUE DATE:

REVISION DATE:  
**SEP/17/2012**

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**CAP**

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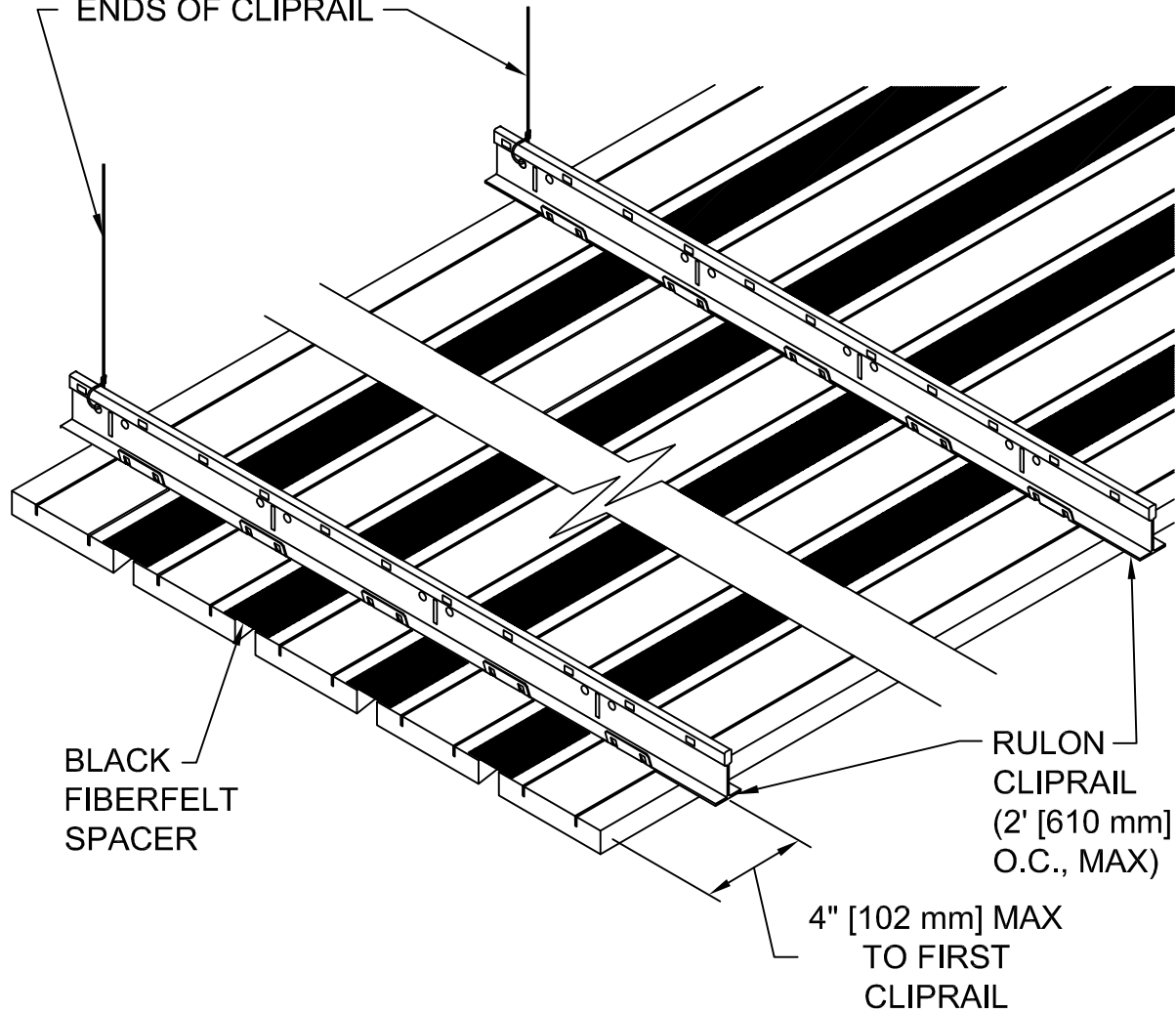
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DRAWING NUMBER:

**LOCXF002**



#12-GAUGE WIRE HANGERS  
 (NOT BY RULON) 4' [1219 mm] ON  
 CENTER ALONG RULON CLIPRAIL  
 AND AT 6" [152 mm] MAX. FROM  
 ENDS OF CLIPRAIL



BLACK  
 FIBERFELT  
 SPACER

RULON  
 CLIPRAIL  
 (2' [610 mm]  
 O.C., MAX)

4" [102 mm] MAX  
 TO FIRST  
 CLIPRAIL



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PROJECT:

TITLE: **Cliprail Installation Detail - Linear  
 Open Style**

ISSUE DATE:

REVISION DATE:  
**APR/26/2013**

DRAWN BY:

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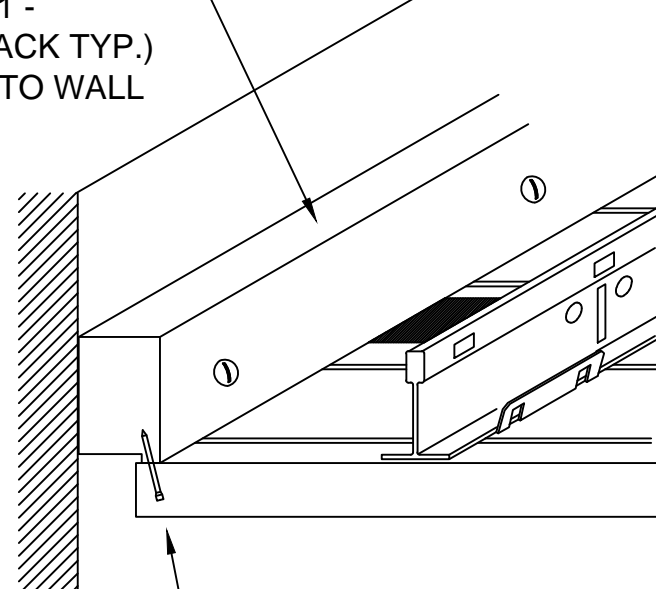
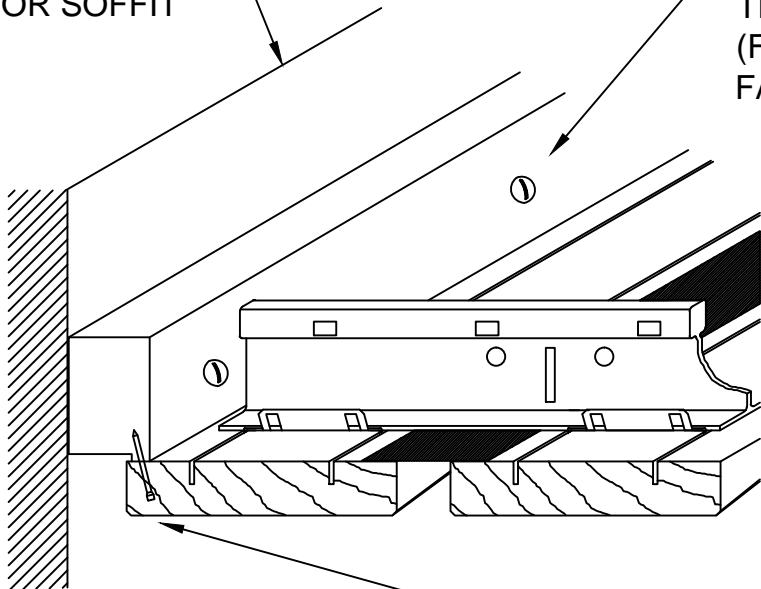
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DRAWING NUMBER:

**LOCXF003**

WALL, BEAM  
OR SOFFIT

RULON PERIMETER  
TRIM #101 -  
(FLAT BLACK TYP.)  
FASTEN TO WALL



NAIL OR STAPLE

SIDE INSTALLATION

END INSTALLATION



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PROJECT:

TITLE: Perimeter Detail -  
Linear Open Style

ISSUE DATE:

REVISION DATE:

SEP/17/2012

DRAWN BY:

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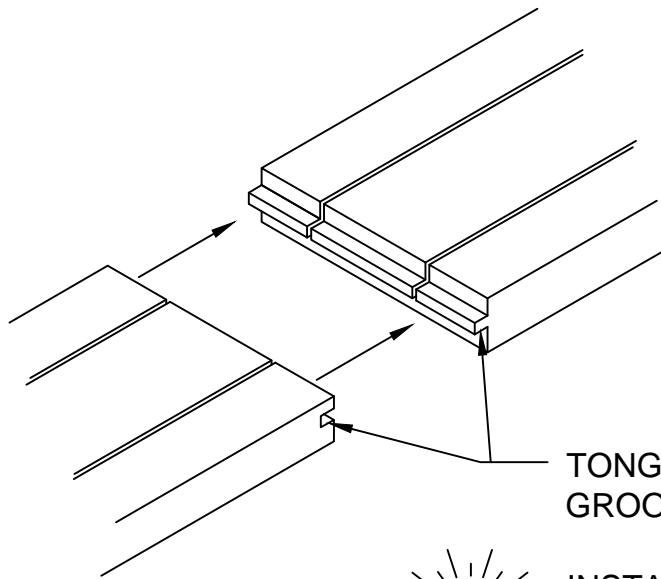
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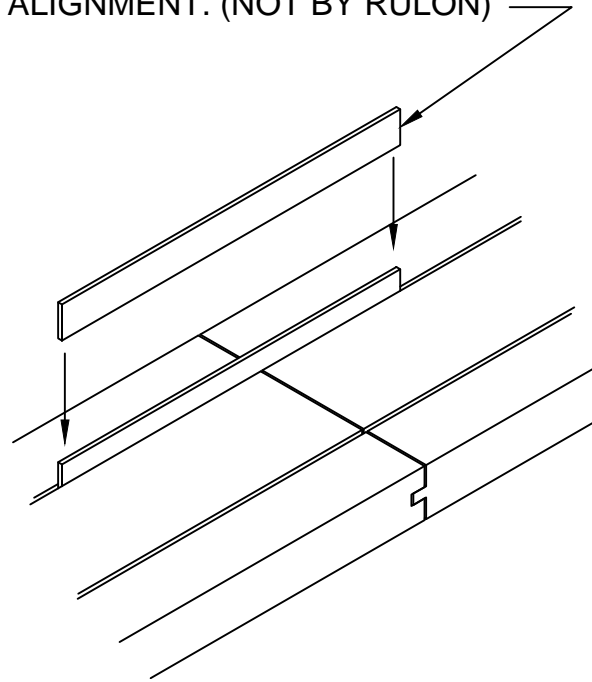
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LOCXF004

1/16" [2 mm] THICK STEEL STRIP OR WIRE SHOULD BE INSERTED INTO SLOT ON BACK OF CEILING BOARD AT T&G END JOINTS TO HELP BOARD ALIGNMENT. (NOT BY RULON)



TONGUE AND GROOVE ENDS



INSTALLATION TIP:  
ONLY ONE (1) STEEL STRIP OR WIRE PIECE IS NEEDED AT EACH CONNECTION. INSTALL WITH CLAMPING TOOL. A FINISH NAIL MAY ALSO BE USED.



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PROJECT:

TITLE: Board Connection Detail -  
Linear Open Style

ISSUE DATE:

REVISION DATE:  
SEP/17/2012

DRAWN BY:

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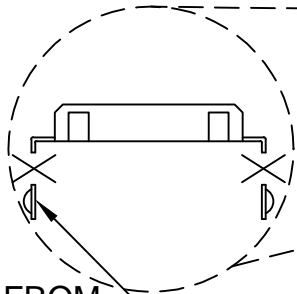
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LOCXF005



## ACCESS PANEL SECTION

REMOVE BARBS FROM  
END CLIPS LEAVING  
TABS PARTIALLY  
INTACT FOR SEATING  
INTO CORRESPONDING  
GROOVES

ACCESS PANEL  
REMOVED

3) DIRECT SCREW  
BOARDS ADJACENT  
TO ACCESS PANEL

1) CUT BOARDS FOR  
ACCESS PANEL

2) ATTACH CUT BOARDS TO SHORT PIECES OF  
CLIPRAIL THAT WILL BRIDGE TO UNCUT CEILING  
AREA.



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PROJECT:

TITLE:

Access Panel Detail -  
Linear Open Style

ISSUE DATE:

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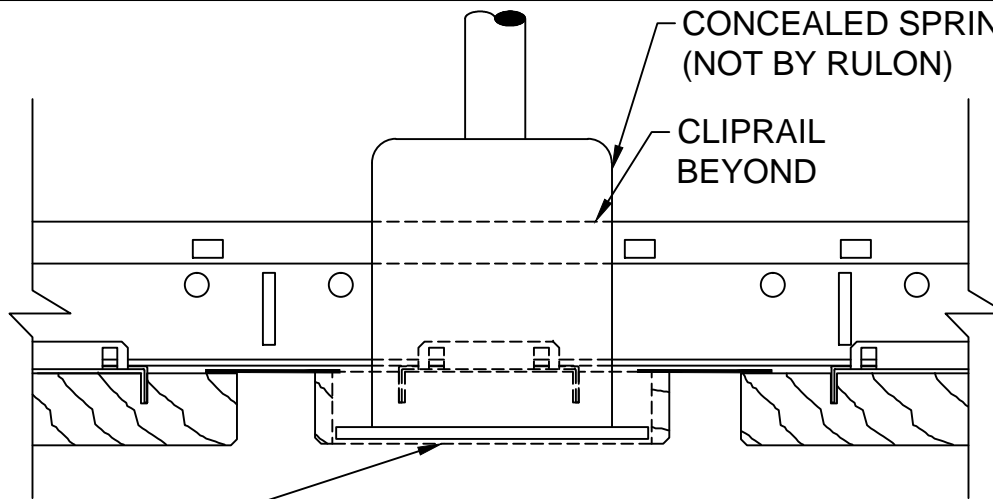
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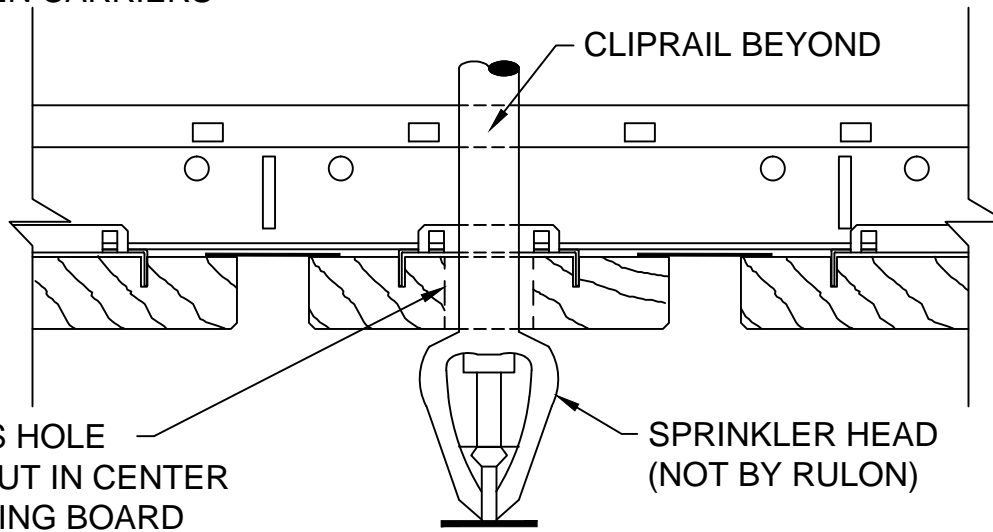
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LOCXF006



CONCEALED  
SPRINKLER

ACCESS HOLE  
FIELD-CUT IN CENTER  
OF CEILING BOARD  
BETWEEN CARRIERS



STANDARD  
SPRINKLER

ACCESS HOLE  
FIELD-CUT IN CENTER  
OF CEILING BOARD  
BETWEEN CARRIERS



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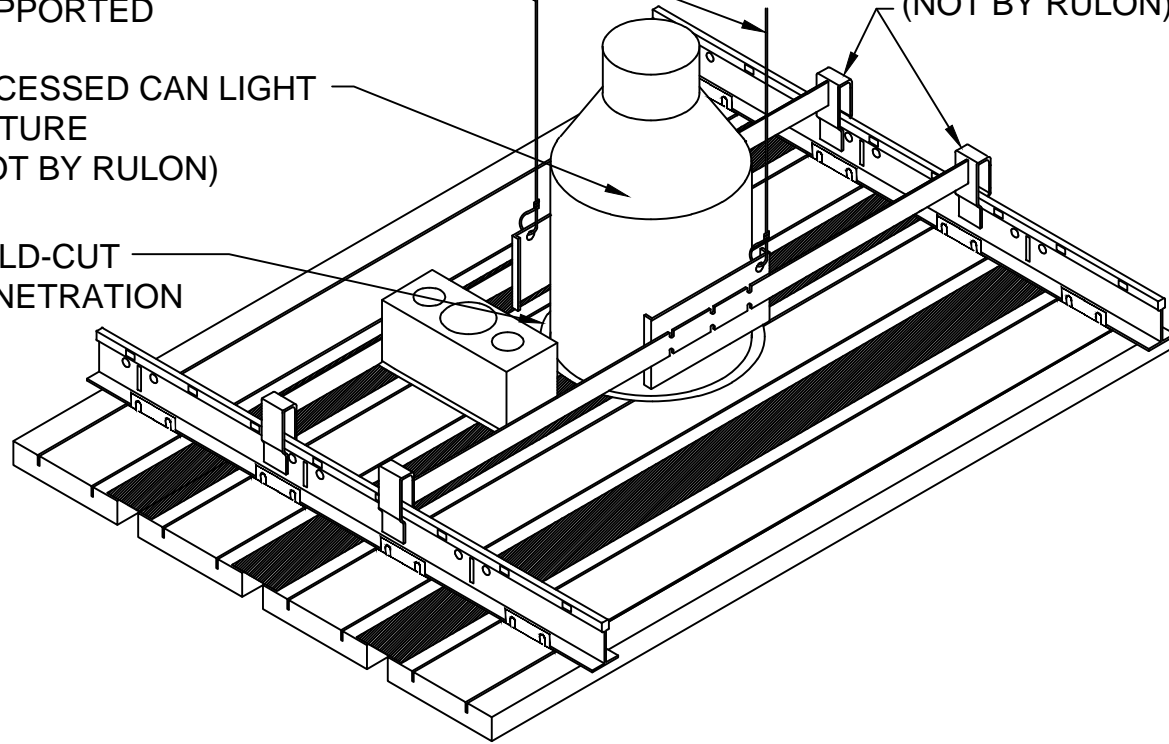
PROJECT:	ISSUE DATE:	DRAWN BY: <b>CAP</b>	PROJECT NUMBER:
TITLE: <b>Sprinkler Detail - Linear Open Style</b>	REVISION DATE: <b>SEP/17/2012</b>	CHECKED BY: <b>TA</b>	DRAWING NUMBER: <b>LOCXF007</b>

LIGHT FIXTURE  
MUST BE  
INDEPENDENTLY  
SUPPORTED

RECESSED CAN LIGHT  
FIXTURE  
(NOT BY RULON)

FIELD-CUT  
PENETRATION

ATTACHMENT  
FOR LATERAL  
STABILITY ONLY  
(NOT BY RULON)



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PROJECT:

TITLE: **Recessed Can Light Detail -  
Linear Open Style**

ISSUE DATE:

REVISION DATE:  
**SEP/17/2012**

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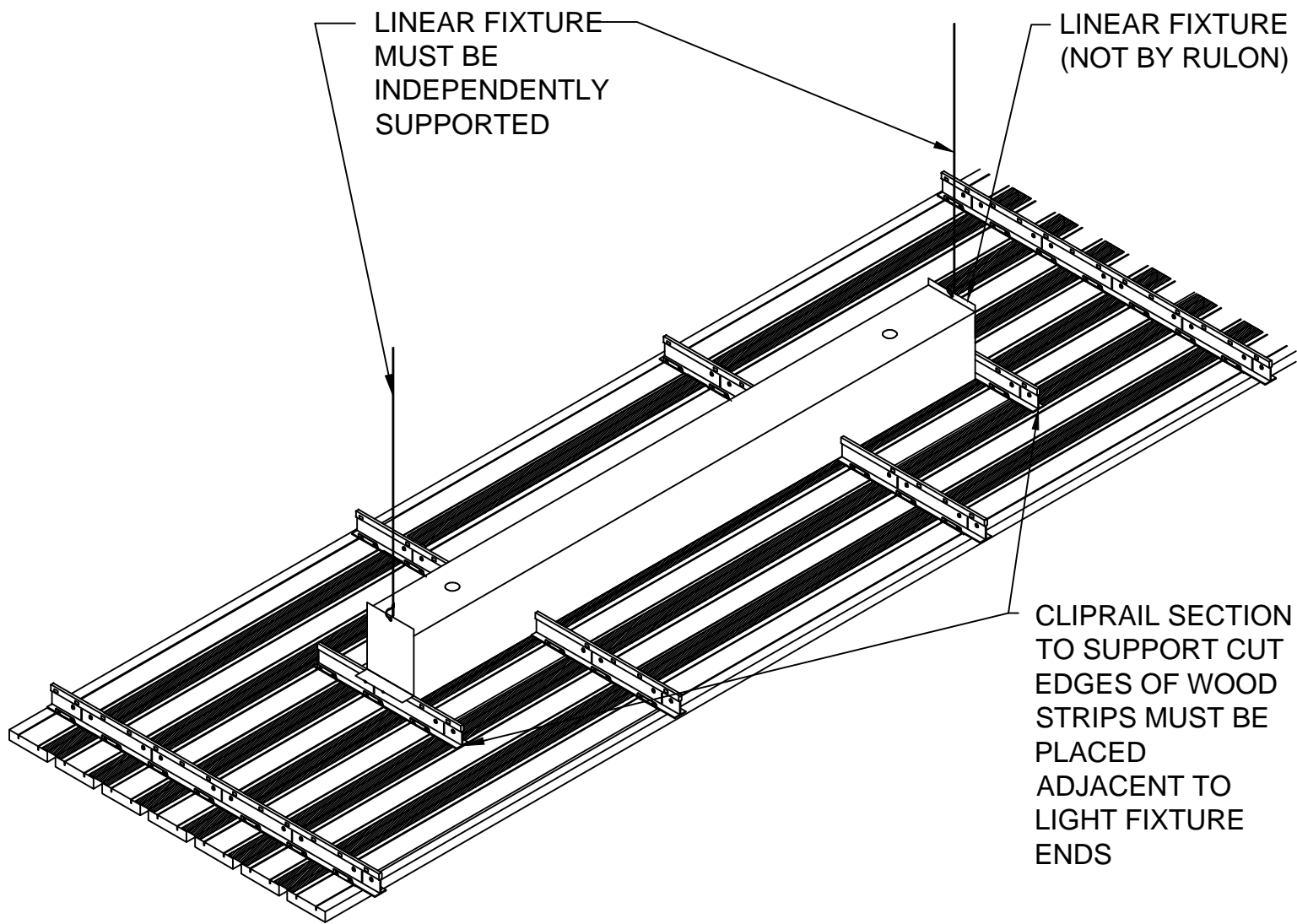
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**LOCXF008**



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PROJECT:

TITLE: **Strip Light Fixture Detail -  
Linear Open Style**

ISSUE DATE:

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**SEP/17/2012**

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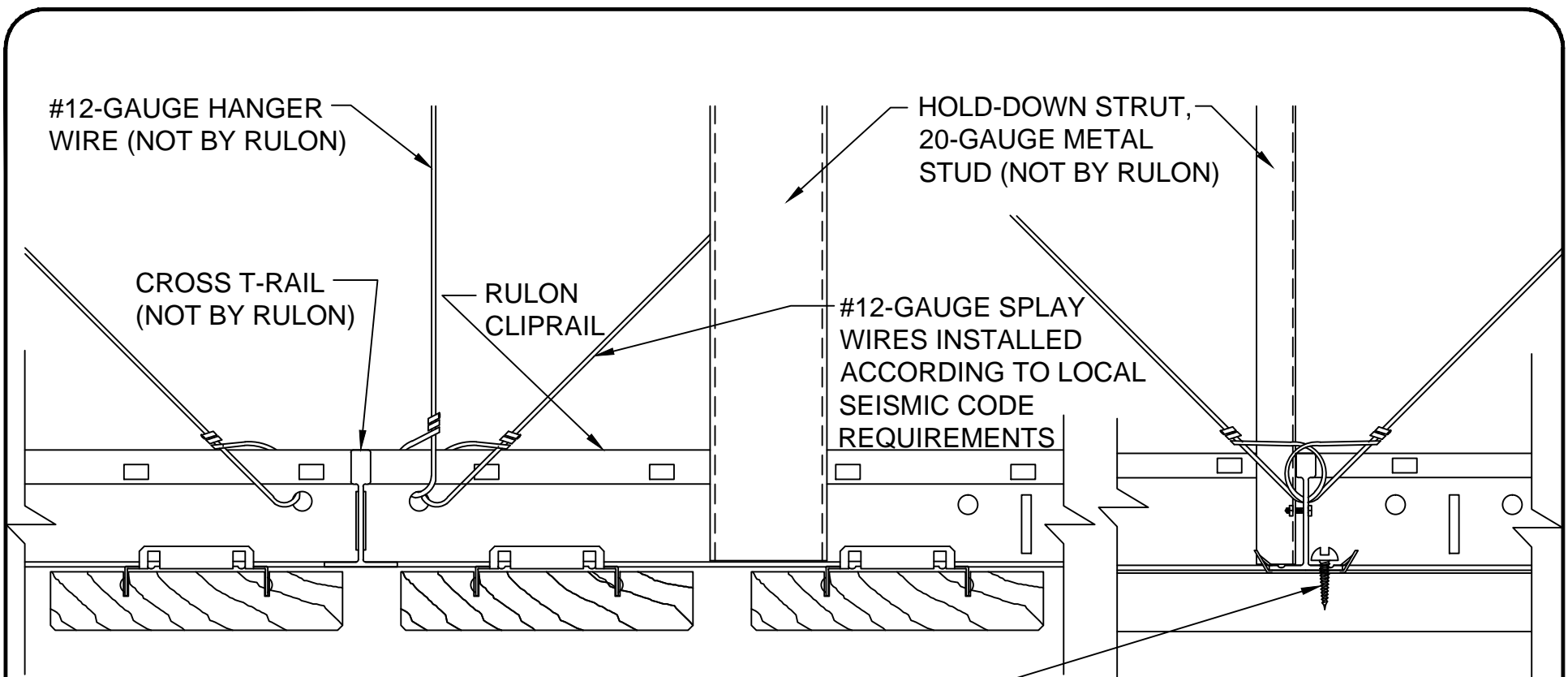
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DRAWING NUMBER:

**LOCXF009**



**SECTION THROUGH BOARDS**

**SECTION THROUGH CLIPRAIL**

NOTE: SUSPENSION SYSTEM TO BE INSTALLED ACCORDING TO LOCAL SEISMIC CONDITION CODE REQUIREMENTS. SUSPENSION SYSTEM NOT BUY RULON.

AT THE CLIP CLOSEST TO THE END OF EACH CEILING BOARD, SCREW THROUGH HOLE PROVIDED IN CLIP INTO CEILING BOARD (BOTH ENDS OF EACH BOARD)



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PROJECT:

TITLE: **Seismic Detail -  
 Linear Open Style**

ISSUE DATE:

REVISION DATE:  
**SEP/17/2012**

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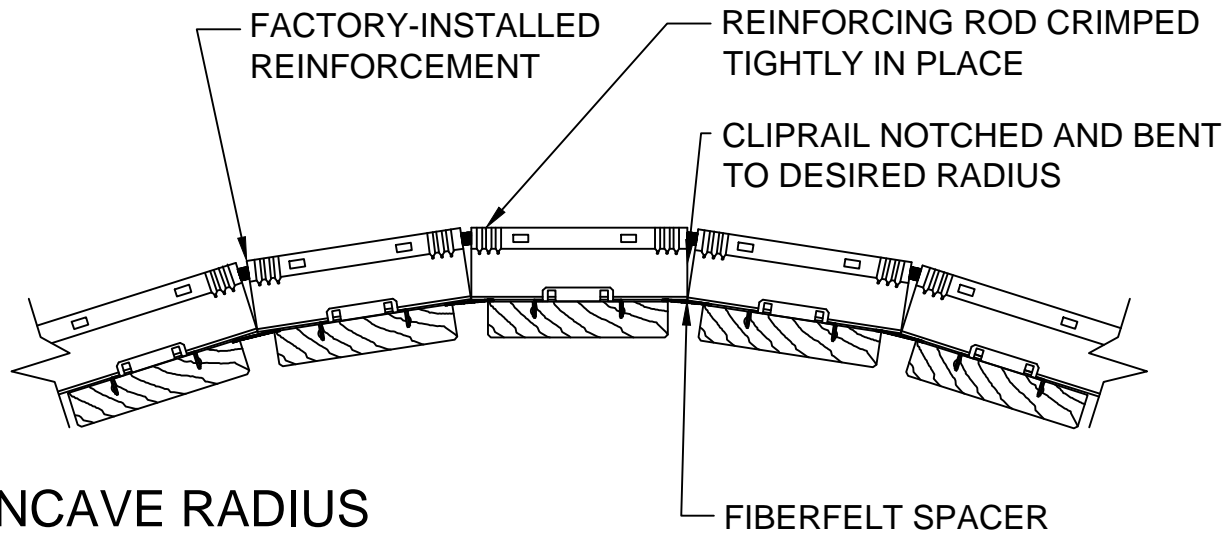
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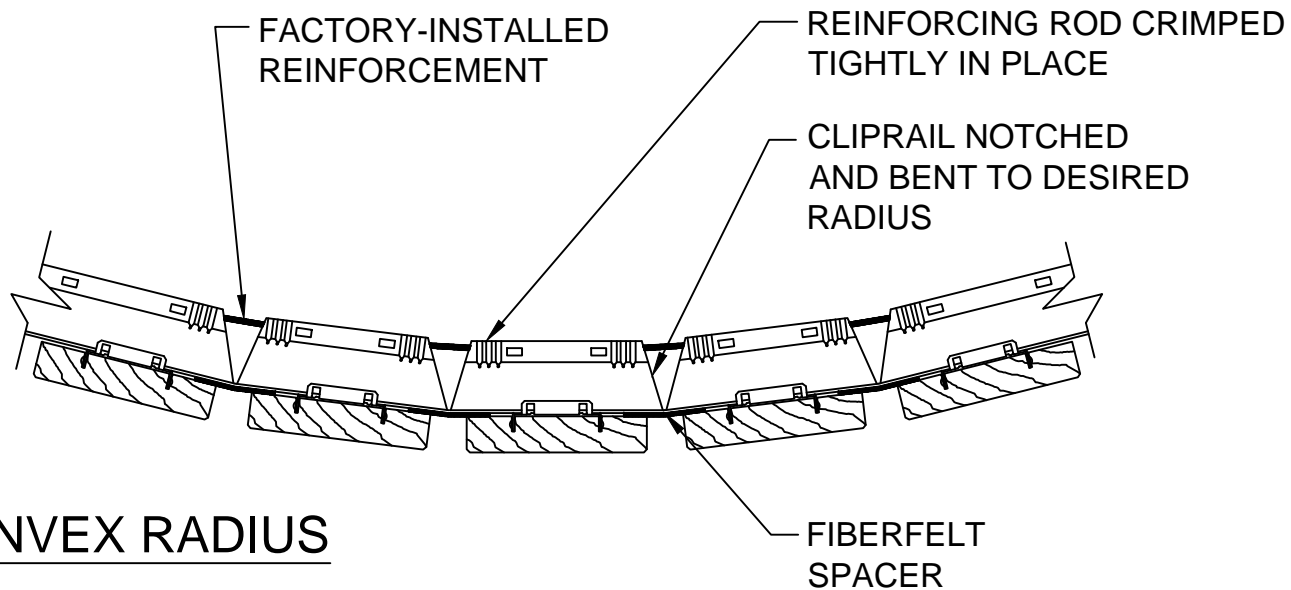
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CONCAVE RADIUS



CONVEX RADIUS



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PROJECT:

TITLE:

Cliprail Radius Detail Linear Open Style

ISSUE DATE:

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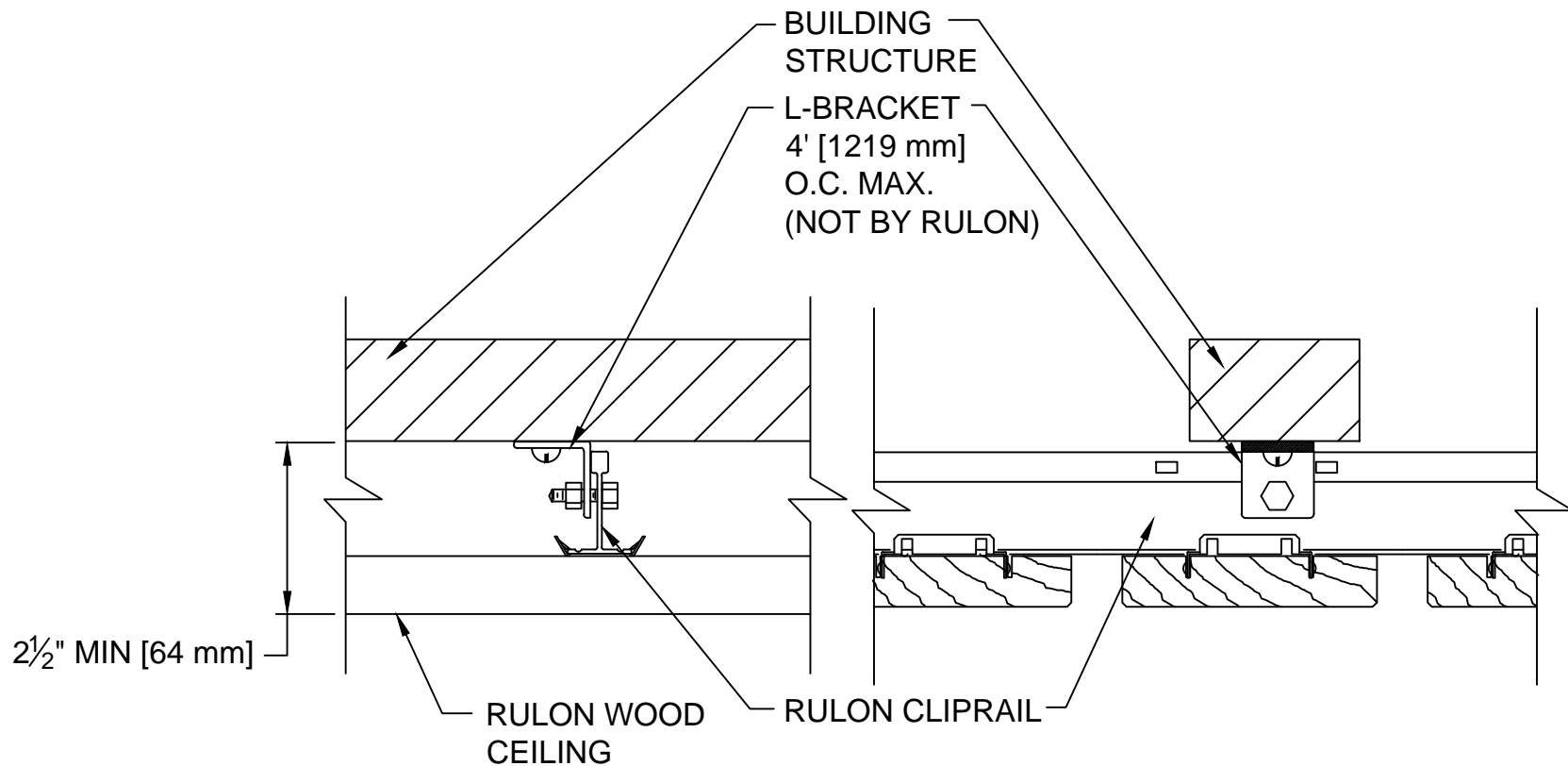
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LOCXF013



SECTION THROUGH CLIPRAIL

SECTION THROUGH BOARDS



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PROJECT:

TITLE:

**Direct Mounting Detail - Ceiling -  
 L-Bracket Method - Linear Open Style**

ISSUE DATE:

REVISION DATE:

**SEP/17/2012**

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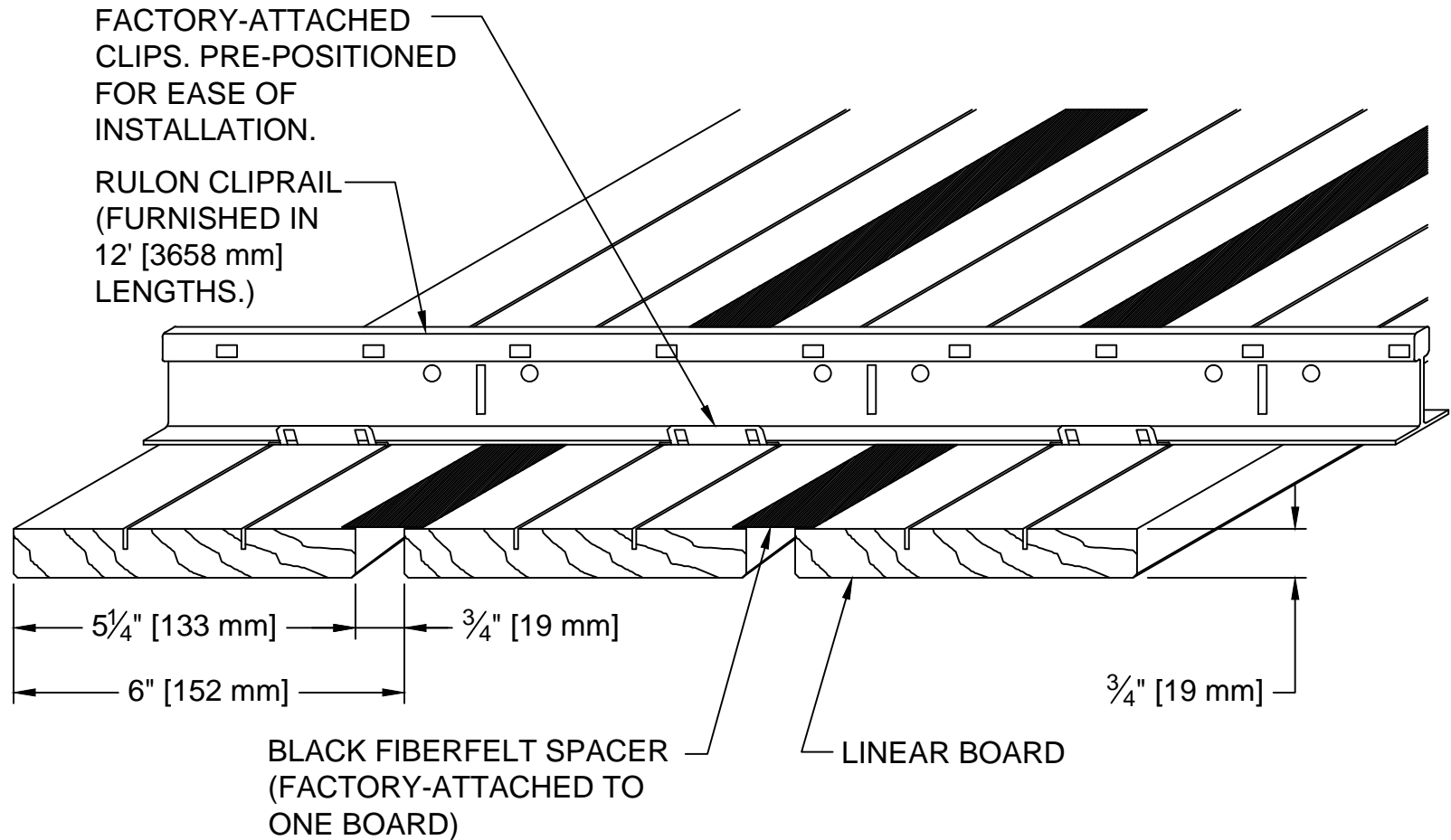
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**LOCXF015**



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PROJECT:

TITLE: **Linear Open Ceiling Profile -  
 6" [152 mm] Module w/Fiberfelt  
 Spacers**

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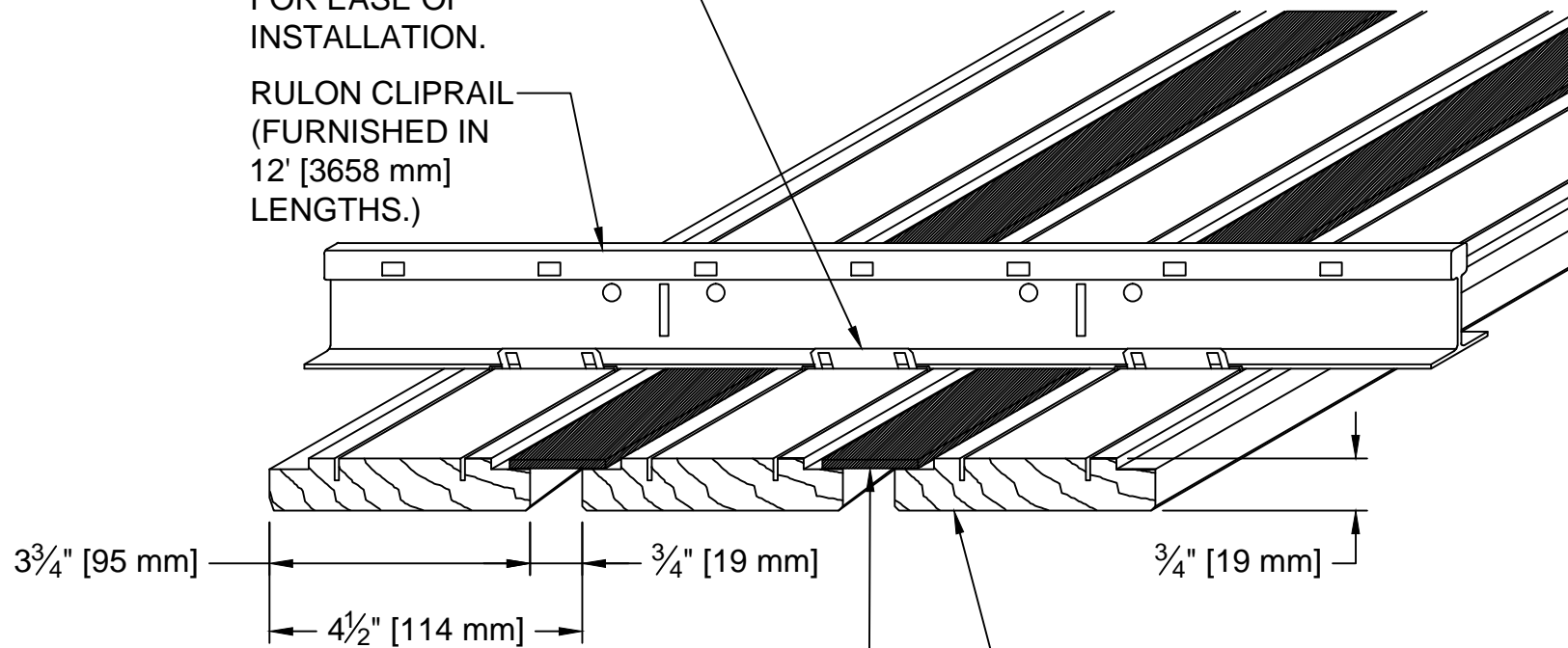
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**LOC6F001**

FACTORY-ATTACHED  
CLIPS. PRE-POSITIONED  
FOR EASE OF  
INSTALLATION.

RULON CLIPRAIL  
(FURNISHED IN  
12' [3658 mm]  
LENGTHS.)



1/8" THICK HARDBOARD SPACER -  
INSERT SEQUENTIALLY WITH  
CEILING BOARDS AS INSTALLATION  
PROCEEDS

LINEAR BOARD



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PROJECT:

TITLE: Linear Open Profile -  
4 1/2" [114 mm] Module w/  
Hardboard Spacers

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