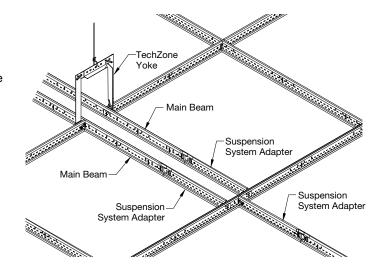
LINEAR LIGHTING INTEGRATION Suspension System Layout & Installation Instructions

INSTALLATION OVERVIEW

The following installation instructions and drawings provide general guidance on the layout and construction of "On-center" Continuous Linear Lighting for long or short runs of linear lights using:

- 9/16" face Silhouette® 1/4", Silhouette 1/8", Interlude XL® HRC, and Suprafine® suspension systems
- Standard and non-standard Optima®, Ultima®, and Calla™ ceiling panels with a Tegular edge detail



Below is an overview of the ceiling system components required to complete one of the described on-center ceiling layouts.

NOTE: Not all of these components are required in every continuous linear lighting layout illustrated below.

- 1. Main beam to cross tee adapters
- Non-standard cross tees with special route hole spacing

(**NOTE:** Cross tee length is dependent on the on center space of the ceiling suspension system opening for lighting.)

- Non-standard length main beams (NOTE: Main beam length is dependent on the length of the linear lighting.)
- 4. Pre-engineered cross tees.
- 5. TechZone Yoke
- 6. Standard 12' main beams
- 7. Standard 2' and 4' cross tees
- 8. Standard wall angle molding
- 9. STAC clips
- 10. Ceiling panels (special sizes and traditional sizes)

NOTE: Pop rivets, screws, and hardware required for attaching to structure are purchased from other manufacturers.

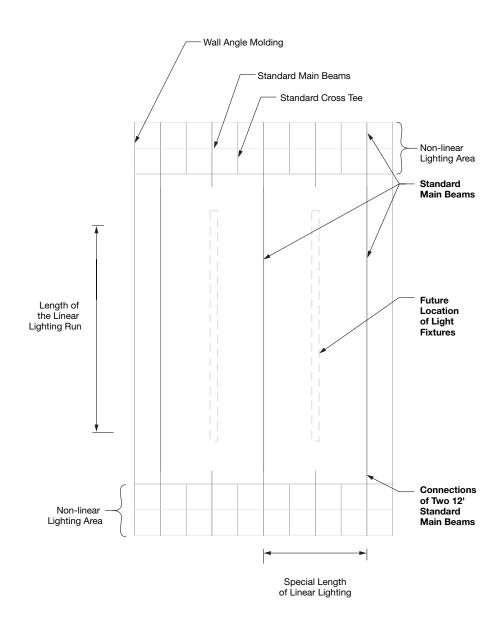
Most building codes require non-structural building components to be restrained. Armstrong also recommends restraint in accordance with local building code requirements. Please consult with the building code professional having jurisdiction over the project to determine appropriate restraint requirements for this installation.

Study the layout of the ceiling and verify that all of the ceiling suspension system components are available on site for the installation. Note that some ceiling suspension system components may be unidirectional. Contact your local Armstrong distributor to request replacement, additional, or missing ceiling suspension system components.



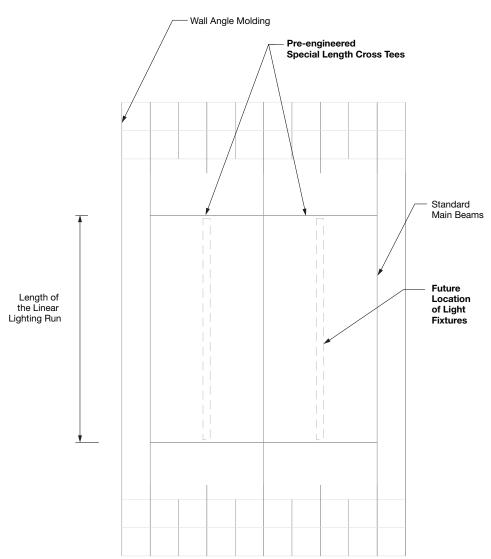
1. INSTALL MAIN BEAMS

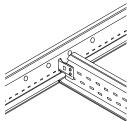
- **1.1** Install standard 12' main beams at a predetermined on-center spacing on the RCP (most likely an 8' or 10' on-center spacing; the on-center spacing will be driven by the on-center layout of the lights).
- **1.2** At this time, do NOT install the non-standard main beams, suspension adapters, or cross tees located adjacent to the lighting fixture ceiling opening.
- 1.3 If applicable, connect these 12' main beams to other 12' long main beams located on 4' centers in non-linear lighting areas.



2. INSTALL INSIDE CROSS TEES

- **2.1** Install one pre-engineered, special length cross tee at either end of the future lighting opening.
- **2.2** Pre-engineered, special length cross tees should be installed perpendicular to and intersecting with the 12' long main beams installed in Step 1.
- **2.3** Please note the special route hole spacing and the unidirectionality of these pre-engineered, special length cross tees and be mindful of the miter locations on these cross tees when working with Silhouette® 9/16" suspension systems.

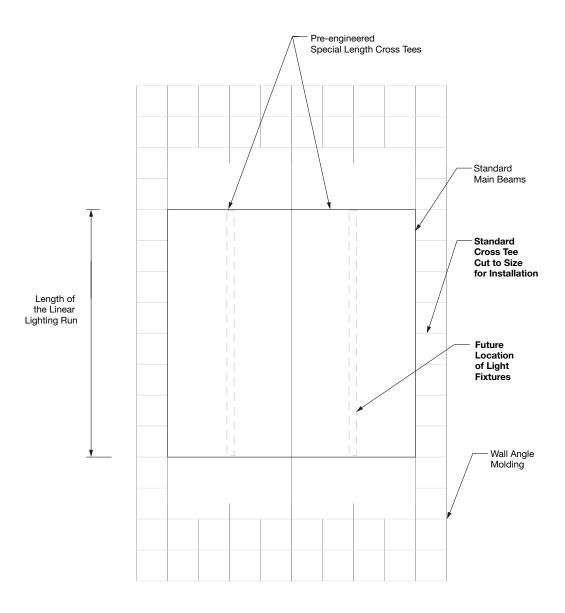




Cross Tee Installation

3. INSTALL OUTSIDE CROSS TEES AND SQUARE THE CEILING

- **3.1** At this point, perimeter cross tees can be installed outside of the "big box", created in Steps 1 and 2, and attached or temporarily secured to the wall or perimeter angle molding to verify the ceiling is square.
- **3.2** The "big box" or a connected standard ceiling will have to be used to square up the ceiling.
- **3.3** Make any and all necessary adjustments to square up the ceiling structure.

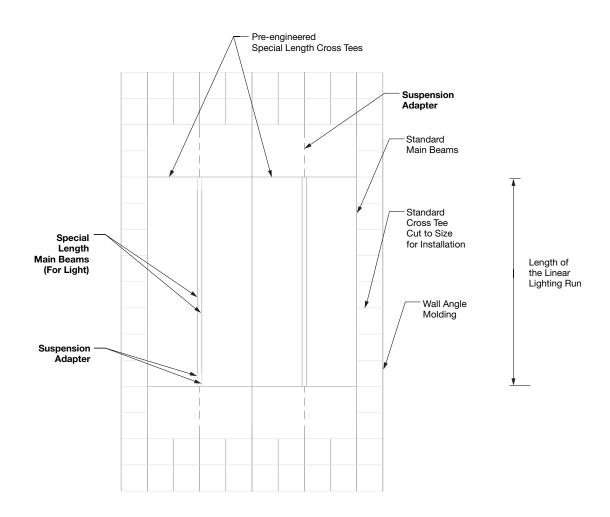


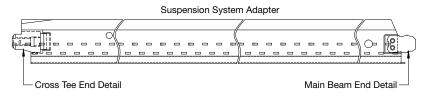
4. INSTALL MAIN BEAMS & LIGHTING BRACING

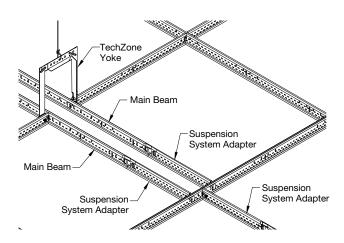
4.1 Install pre-engineered, special length main beams, cross tees, and/or suspension system adapter components with the TechZone Yoke to create the continuous linear lighting opening.

(**NOTE:** Refer to the TechZone Yoke installation instructions for proper installation of the TechZone Yoke.)

4.2 Please note the special route hole spacing of these pre-engineered, special length main beams and cross tees and be mindful of the miter locations on these cross tees when working with Silhouette® 9/16"suspension systems.







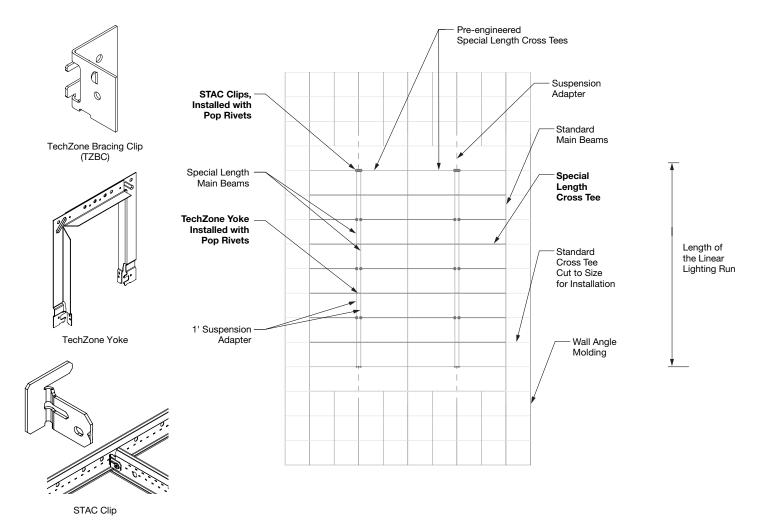
5. BRACKETS FOR LIGHTING INTEGRATION

- **5.1** The special cross tees being installed perpendicular to the continuous linear lighting ceiling opening that do not intersect with the TechZone Yoke need to be secured with a Single Tee Adapter Clip (STAC) and single pop rivet.
- **5.2** Proper installation requires the rivet to be installed through the hole in the special length cross tee first and then into the STAC clip.

6. TECHZONE YOKE INSTALLATION

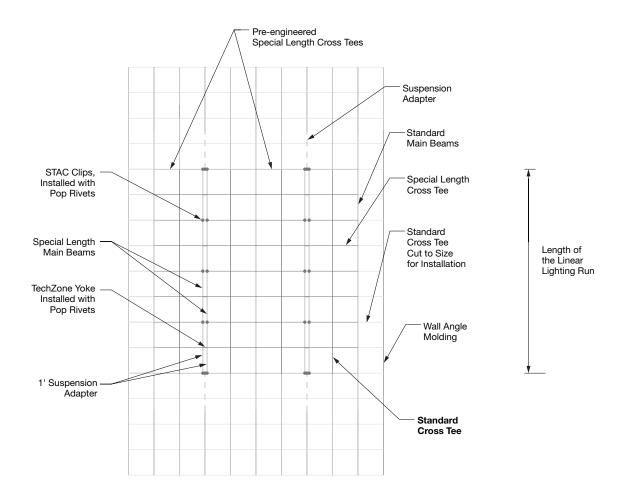
- **6.1** The TechZone Yoke is a two-part assembly. The halves are joined by inserting #7 screws through the small convenience screw holes provided across the top of the yoke. Two screws are required in each yoke assembly.
- **6.2** The yoke is suspended from the overhead structure by means of minimum 12 gauge soft annealed galvanized hanger wire. One hanger wire from structure is required at the center of the top strap of each yoke.
- **6.3** For continuous lighting installations, install a TechZone Yoke every 48" along the main beams starting at 24" in from the end.

- **6.4** Place the main beam inside the yoke and insert the main beam route hole alignment tab and main beam locating tab into the appropriate main beam holes. Connect the yoke to the main beam with a 1/8" diameter steel pop rivet inserted from the inside of the technical zone through the web of the main beam first and then through the hole in the yoke. The finished side of the rivet should be facing the inside of the technical zone. Repeat this process for each yoke-to-main beam connection.
- **6.5** Stab the cross tee into the yoke as you normally would a cross tee. Position the end of the cross tee flange on the main beam properly. Connect the yoke by inserting a 1/8" diameter steel pop rivet through the staked-on end detail hole that lines up with the cross tee pilot hole on the yoke. Snip off or bend the cross tee end detail flat against the main beam so light fixture interference does not occur. Repeat this process for each cross tee that meets the main beam at a yoke.
- **6.6** The special cross tees being installed perpendicular to the continuous linear lighting ceiling opening that do not intersect with the TechZone Yoke need to be secured with a STAC clip and single pop rivet.
- **6.7** Proper installation requires the rivet to be installed through the hole in the special length cross tee first and then into the STAC clip.



7. INSTALL REMAINING CROSS TEES

7.1 Install the remaining standard length cross tees to complete the ceiling layout and ceiling panel openings.



8. INSTALL CEILING PANELS

- **8.1** Install ceiling panels. Some ceiling panels will not be of the standard 24" x 24" size; specifically, the ceiling panels located adjacent to the continuous linear lighting opening.
- **8.2** Coordinate the installation of the ceiling panels with the electrical contractors as they will need to install an electrical drop(s) for the lighting fixtures.

MORE INFORMATION

For more information, or for an Armstrong representative, call 1 877 276 7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine $^{\rm SM}$ services at 1 877 276 7876 or FAX 1 800 572 TECH.

 $For the \ latest \ product \ selection \ and \ specification \ data, \ visit \ armstrong ceilings.com/linear lighting$

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