A major benefit of R-Control SIPs used for roof applications is their ability to span long distances. These distances are commonly from 8-12 feet for R-Control SIPs connected with surface or block splines and from 12-24 feet when connected with double 2X or engineered wood splines. When installed in a single span condition, the attachment of the R-Control SIP to the supports is accomplished with R-Control SIP fasteners at the end of the SIP. The spacing is commonly 6, 8, or 12 in. on center. Please refer to Load Design Chart #8 for screw spacing requirements for single span conditions.

R-Control SIPs are manufactured in sizes up to 8 ft. x 24 ft. The large size of R-Control SIPs provides the ability to install a single SIP very quickly and reduce the time and labor for installation. In many buildings the installation will be over multiple supports. When installed over multiple supports, the attachment of the R-Control SIP can be accomplished with an alternate fastening pattern. Multiple span connection patterns are based on the connection frequency required for the equivalent SIP single span length in accordance with Load Design Chart #8. Please refer to fastening patterns in this bulletin for conditions requiring R-Control screws at 6, 8, or 12 inches on center.
Connection Patterns for Condition with R-Control Screws 12 in. on Center

The figures illustrate the attachment pattern for a two to five span condition, but the general patterns can be extended to conditions with 6 or greater spans.
Connection Patterns for Condition with R-Control Screws 8 in. on Center

Connection patterns for single span condition

Connection patterns for two span condition

Connection patterns for three span condition

Connection patterns for four span condition

Connection patterns for five span condition

The figures illustrate the attachment pattern for a two to five span condition, but the general patterns can be extended to conditions with 6 or greater spans.
Connection Patterns for Condition with R-Control Screws 6 in. on Center

Connection patterns for single span condition

Connection patterns for two span condition

Connection patterns for three span condition

Connection patterns for four span condition

Connection patterns for five span condition

The figures illustrate the attachment pattern for a two to five span condition, but the general patterns can be extended to conditions with 6 or greater spans.