

Strongback Bridging Guidelines for TrusSteel Floor Trusses: Commentary for Standard Detail TS066

Overview

Strongbacks are lateral braces that help reduce the dynamic response of a floor framing system by increasing stability. They are not considered structural elements, although they can help distribute the load on a floor truss to the adjacent trusses, helping the floor system to act as a unit.

Strongback guidelines and new Standard Detail TS066

TrusSteel Standard Detail TS066 is provided to designers as a general reference guide for the application of strongback members for TrusSteel Cold-Formed Steel floor trusses only. Specific information on the use and placement of strongbacks for individual project applications is given on the sealed engineering drawings provided by Alpine / TrusSteel as a part of the project shop drawings.

Strongback placement, materials and installation

This information about strongbacks is supplied by notation on the sealed engineering drawings which are provided by Alpine / TrusSteel for each truss project. Below is a typical example of a note:

“(+) 600S162-33 or 550S162-33 stud member continuous strongback. Attach to each truss where shown with (3) #10 SDS into vertical web member.”

The locations of the strongbacks are specified pictorially on the sealed engineering drawings and are typically signified with the plus (+) symbol. Members are typically spaced a maximum of 10' O.C. Strongbacks should be located as close to the bottom chord of the floor truss as possible, and should be attached to walls at their outer ends (or restrained by other means). Where strongback members overlap, they should overlap a distance of one truss-to-truss spacing. SDS refers to generic self-tapping metal screws (such as Tek screws).

This information is covered in TrusSteel Standard Detail TS066. In addition, TS066 gives guidance for installing strongbacks when no vertical web is present.

Estimating the amount of material needed

If an estimate for the amount of strongback material is needed, the following procedure can be used as a guide. *Since framing and strongback lengths are different for each situation, only general guidelines are given below.*

1. Print the layout of the floor system.
2. Mark the locations of strongbacks on each floor truss (see sealed engineering drawings or other shop drawings)
3. Draw in the strongbacks (with available material lengths), making sure to account for overlap length (overlap length = one truss-to-truss spacing).
4. Determine total quantity of strongbacks needed.

Additional information

For special situations, or questions not addressed in this Technical Bulletin, contact a TrusSteel engineer.

Included Documents

TS066