

## ► Recommended Fastening V-Truss Walls & Ceiling Lath

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V-Truss Walls & Ceilings or Structa Rib Lath is designed for superior performance of stucco on overhead surfaces. To determine best installation practices Structa Wire has conducted tests on direct attachment of soffit laths to wood framing, without sheathing. Two lath types were evaluated – Structa V-Truss Wall & Ceilings, and 3/8 inch Hi-Rib expanded metal lath.

The Structa V-Truss was fastened in accordance with SWC ESR 2017 utilizing 16ga, 2-in. long, wire staples at every second rib (7" total). The ribs were collapsed as allowed for wire laths. The 3/8 inch rib lath was attached with 16 gauge, 2-in. long, wire staples (five) and two- 1-1/2" long No. 9 W&M gage ring shank, hook staples with a 1/2" wide crown. The ribs were not crushed and spacing of staples was 6 to 7 inches, all as per ASTM C1063. The J nails were installed not more than 3 inches from the edge of each sheet.

Stucco at 3/4" thickness was applied to the laths. The framing lumber was SPF with S.G. of 0.42. After curing, each frame member was evenly pulled using a tensile testing machine. The minimum withdrawal forces were 571 lbs for the Structa V-Truss lath and 477 lbs for the 3/8 inch Hi-Rib expanded metal lath.

Based on published withdrawal design values of 20 lbs/inch for 16 gage staples and 26 lbs/inch for the hook staples, the calculated withdrawal capacity would be 280 lbs for the Structa V-Truss versus 228 lbs for the Rib lath. This would indicate that there is a safety factor of 2 for both cases.

In the analysis of actual design loads, with framing at 24 in. on center and with the 30-inch stucco width utilized in the tests, the resulting stucco area would be 5 sq ft. Weight of stucco is 10 psf and considering a further 1g vertical factor for seismic, the result is a loading of 20 psf. This would be 100 lbs total for each framing member for the 30-inch width.

Therefore, the calculated capacity is well above this calculated load, and certainly well below the tested capacity. Structa Wire approves the application of its Structa V- Truss Wall & Ceilings lath with 16ga, 1-1/2" long, wire staples applied at every 2nd rib (as per our ER 2017), without the need for additional hook staples.

If you require further information, please do not hesitate to reach out to us at 1-800-887-4708.