NC Department of Insurance Office of the State Fire Marshal - Engineering Division 1202 Mail Service Center, Raleigh, NC 27699-1202 919-647-0000

Multiple Load Bearing Studs

Code: 2018 Residential Code Date: January 15, 2020

Sections: Table R602.3(1)

Question:

Is a metal strap required when 3 or more load bearing studs are connected side-by-side?

Code Reference:

Table R602.3(1) shows a connection detail "Double Studs" which should be used when nailing two or more studs together. Section "R601.2 Requirements" in the 2018 NCRC states, "Wall construction shall be capable of accommodating all loads imposed in accordance with Section R301 and of transmitting the resulting loads to the supporting structural elements."

Answer:

No. When there are three or more studs that are within close contact so the nailing of the studs is not visible, the studs will be determined to be code compliant and installed per the "Double Studs" detail in Table R602.3(1).

Studs that have <u>visible gaps in between them with no nails visible</u> calls into question the structural integrity of the stud assembly. An inspector should require the studs be made code compliant by through an <u>engineering evaluation</u> and alternative method or by complying with the details in Table 602.3(1) for double studs. Metal straps may be an alternative method designed by a design professional.

Keywords: bracing, multiple studs, metal straps