



DEPARTMENT OF ADMINISTRATIVE SERVICES

April 27, 2017

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Interpretation of 2016 CT State Building Code IBC Section 3404
Acceptable Loading of Existing Structures

Ms. Bachman,

In your email of March 24, 2017 you requested an interpretation regarding the structural stresses allowed during an alteration of an existing communication tower, specifically whether an overstress up to 5% would be allowed by the State Building Code.

Answer:

These alterations are regulated by chapter 34 – Existing Buildings and Structures of the 2012 IBC portion of the 2016 State Building Code. Section 3404.3 discusses gravity loading and states in salient part “Any existing gravity load-carrying structural element for which an alteration causes an increase in design gravity load of more than 5 percent shall be strengthened...”. Section 3404.4 discusses lateral loads and includes an exception which states in salient part “Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is no more than 10 percent greater than its demand-capacity ratio with the alteration ignored shall be permitted to remain unaltered.” This exception continues to require that the effects of all additions and alterations must be included in this analysis.

Therefore, the State Building Code would allow limited overstresses under certain conditions for existing towers.

Sincerely,

Joseph V. Cassidy, P.E.
State Building Inspector