

INFORMAL CODE INTERPRETATION

NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Above Grade Vent Well Size Requirements for Natural Ventilation

Code: 2012 NC Building Code

Date: August 15, 2012

Section: 1203.4.1.2

Question:

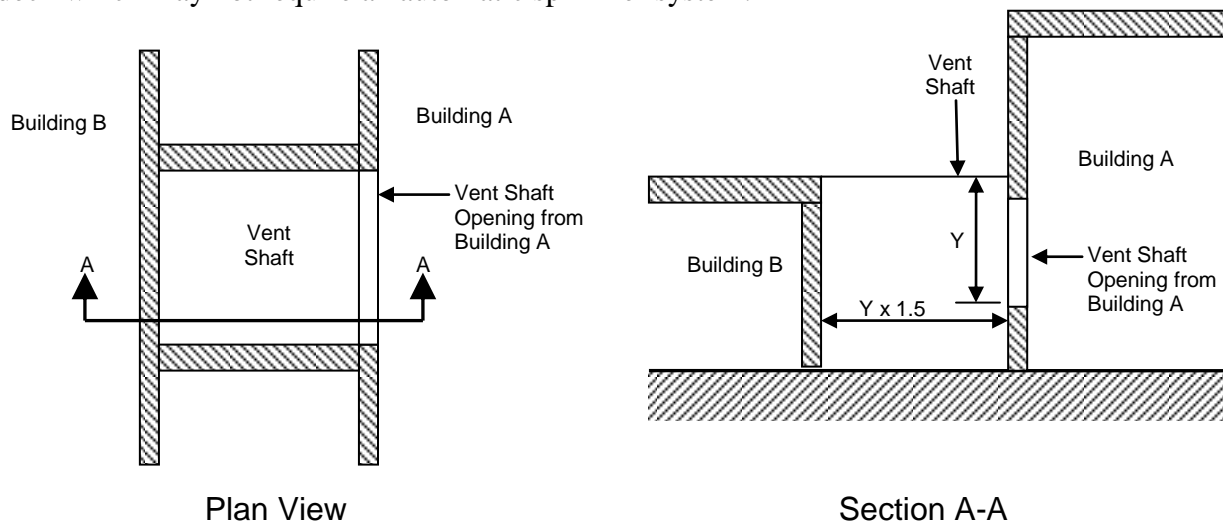
Do vent wells that are provided for natural ventilation and located above grade need to meet the size requirements of Section 1203.4.1.2 for “Openings Below Grade”? “Vent well” as it pertains to this question is a vent shaft that is open at the top, enclosed on 4 sides, and is provided for natural ventilation of a building.

Answer:

Yes. An above grade vent well is very much like a below grade opening as described in Section 1203.4.1.2. In order to move air up and out of the well there has to be enough horizontal distance to sustain air movement in the well. The code has determined that a horizontal distance of 1.5 times the depth of such a well will provide adequate air movement to vent the space (see Plan View and Section A-A below).

Section 1203.4.3 – Openings on Yards or Courts will not apply to these types of ventilation wells because the code is expecting a yard or court to have a connecting horizontal opening that allows air to flow horizontally in or out of the space.

Above grade vent wells are frequently used for parking decks that are immediately adjacent to other buildings such that a vent well is required to qualify the parking deck as an “open” parking deck which may not require an automatic sprinkler system.



Keywords:

Enclosed parking deck, open parking deck