VILLAGE OF NORTH AURORA

ORDINANCE NO. 10-05-03-01

BEING AN ORDINANCE AMENDING CHAPTER 15.20 OF THE NORTH AURORA CODE REGARDING 2006 INTERNTIONAL RESIDENTIAL CODE REGARDING ONE- AND TWO-FAMILY DWELLINGS (BRACED WALL MATERIALS)

WHEREAS, Section R602.10.3 of the 2006 International Residential Code for One- and Two-Family Dwellings has various standards listed for acceptable for braced wall materials; and

WHEREAS, certain materials have been reviewed and been deemed not acceptable for braced wall materials; and

WHEREAS, the President and the Trustees of the Village of North Aurora have determined that these certain materials shall no longer be acceptable for braced wall materials to protect the health, safety and welfare of the inhabitants of residential properties in the Village.

NOW, THEREFORE, BE IT ORDAINED by the President and Board of Trustees of the Village of North Aurora, Kane County, Illinois that Village of North Aurora Municipal Code shall be amended as follows:

Section 1 The recitals set forth above are incorporated herein as the material finding of the President and the Trustees of the Village of North Aurora.

Section 2 Subsection B of Section 15.20.015 of Chapter 15.20 of Title 15 of the North Aurora Code is hereby amended to add the following paragraphs:

R602.10.3 Braced wall panel construction methods. The construction of braced wall panels shall be in accordance with one of the following methods:

1. Nominally 1-inch-by4-inch (25 mm by 102mm) contiguous diagonal braces let in to the top and bottom plates and the intervening studs or approved metal strap devices installed in accordance with the manufacturer's specifications. The let-in bracing shall be placed at an angle not more than 60 degrees (1.06 rad) or less than 45 degrees (0.79 rad) from the horizontal.

2. Wood boards of 5/8 inch (16 mm) net minimum thickness applied diagonally on studs spaces a maximum of 24 inches (610 mm). Diagonal boards shall be attached to studs in accordance with Table R602.3(1).

3. Wood structural panel sheathing with a thickness not less than 5/16 inch (8 mm) for 16-inch (406 mm) stud spacing and not less than 3/8 inch (9 mm) for 24-inch (610 mm) spacing. Wood structural panels shall be installed in accordance with Table R602.3(3).

4. Blank.

5. Blank.

6. Particleboard wall sheathing panels installed in accordance with Table R602.3(4)

7. Blank.

8. Blank.

Section 3 This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form by the Village Clerk.

Presented to the Board of Trustees of the Village of North Aurora, Kane County, Illinois this 3RD day of MAY, 2010, A.D.

Passed by the Board of Trustees of the Village of North Aurora, Kane County, Illinois this 3RD day of MAY, 2010, A.D.

Chris Faber	YES	Michael Herlihy III	YES
Mark Gaffino	YES	Vince Mancini	YES
Mark Guethle	YES	Robert Strusz	YES

Approved and signed by me as President of the Board of Trustees of the Village of North Aurora, Kane County, Illinois this 3RD day of MAY, 2010, A.D.

Dale Berman

Dale Berman, Village President

ATTEST:

Lori Murray

Lori Murray, Village Clerk

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R602.10.1 Braced wall lines. Braced wall lines shall consist of braced wall panel construction in accordance with Section R602.10.3. The amount and location of bracing shall be in accordance with Table R602.10.1 and the amount of bracing shall be the greater of that required by the seismic design category or the design wind speed. Braced wall panels shall begin no more than 12.5 feet (3810 mm) from each end of a braced wall line. Braced wall panels that are counted as part of a braced wall line shall be in line, except that offsets out-of-plane of up to 4 feet (1219 mm) shall be permitted provided that the total out-to-out offset dimension in any braced wall line is not more than 8 feet (2438 mm).

R602.10.1.1 Spacing. Spacing of braced wall lines shall not exceed 35 feet (10 668 mm) on center in both the longitudinal and transverse directions in each story.

Exception: Spacing of braced wall lines not exceeding 50 feet shall be permitted where:

1. The wall bracing installed equals or exceeds the amount of bracing required by Table R602.10.1 multiplied by a factor equal to the braced wall line spacing divided by 35 feet and
2. The length-to-width ratio for the floor or roof diaphragm does not exceed 3:1.

R602.10.2 Cripple wall bracing.

R602.10.2.1 Seismic design categories other than D_2. In Seismic Design Categories other than D_2, cripple walls shall be braced with an amount and type of bracing as required for the wall above in accordance with Table R602.10.1 with the following modifications for cripple wall bracing:

1. The percent bracing amount as determined from Table R602.10.1 shall be increased by 15 percent and
2. The wall panel spacing shall be decreased to 18 feet (5486 mm) instead of 25 feet (7620 mm).

R602.10.2.2 Seismic Design Category D_2. In Seismic Design Category D_2, cripple walls shall be braced in accordance with Table R602.10.1.

R602.10.2.3 Redesignation of cripple walls. In any seismic design category, cripple walls are permitted to be redesignated as the first story walls for purposes of determining wall bracing requirements. If the cripple walls are redesignated, the stories above the redesignated story shall be counted as the second and third stories, respectively.

R602.10.3 Braced wall panel construction methods. The construction of braced wall panels shall be in accordance with one of the following methods:

1. Nominal 1-inch-by-4-inch (25 mm by 102 mm) continuous diagonal braces let in to the top and bottom plates and the intervening studs or approved metal strap devices installed in accordance with the manufacturer's specifications. The let-in bracing shall be placed at an angle not more than 60 degrees (1.06 rad) or less than 45 degrees (0.79 rad) from the horizontal.
2. Wood boards of $^5/_8$ inch (16 mm) net minimum thickness applied diagonally on studs spaced a maximum of 24 inches (610 mm). Diagonal boards shall be attached to studs in accordance with Table R602.3(1).
3. Wood structural panel sheathing with a thickness not less than $^5/_{16}$ inch (8 mm) for 16-inch (406 mm) stud spacing and not less than $^3/_8$ inch (9 mm) for 24-inch (610 mm) stud spacing. Wood structural panels shall be installed in accordance with Table R602.3(3).
4. ~~One-half-inch (13 mm) or $^{25}/_{32}$-inch (20 mm) thick~~ structural fiberboard sheathing applied vertically or horizontally on studs spaced a maximum of 16 inches (406 mm) on center. Structural fiberboard sheathing shall be installed in accordance with Table R602.3(1).
5. Gypsum board with minimum $^1/_2$-inch (13 mm) thickness placed on studs spaced a maximum of 24 inches (610 mm) on center and fastened at 7 inches (178 mm) on center with the size nails specified in Table R602.3(1) for sheathing and Table R702.3.5 for ~~interior gypsum board.~~
6. Particleboard wall sheathing panels installed in accordance with Table R602.3(4).
7. ~~Portland cement plaster on studs spaced a maximum~~ of 16 inches (406 mm) ~~on center~~ and installed in accordance ~~with Section~~ R703.6.
8. ~~Hardboard panel siding when installed in accordance with Table R703.4.~~

Exception: ~~Alternate braced wall panels constructed in~~ accordance with Section R602.10.6.1 ~~or R602.10.6.2~~ shall be ~~permitted to replace~~ any of the above methods of ~~braced wall panels.~~

R602.10.4 Length of braced panels. For Methods 2, 3, 4, 6, 7 and 8 above, each braced wall panel shall be at least 48 inches (1219 mm) in length, covering a minimum of three stud spaces where studs are spaced 16 inches (406 mm) on center and covering a minimum of two stud spaces where studs are spaced 24 inches (610 mm) on center. For Method 5 above, each braced wall panel shall be at least 96 inches (2438 mm) in length where applied to one face of a braced wall panel and at least 48 inches (1219 mm) where applied to both faces.

Exceptions:

1. Lengths of braced wall panels for continuous wood structural panel sheathing shall be in accordance with Section R602.10.5.
2. Lengths of alternate braced wall panels shall be in accordance with Section R602.10.6.1 or Section R602.10.6.2.

R602.10.5 Continuous wood structural panel sheathing. When continuous wood structural panel sheathing is provided in accordance with Method 3 of Section R602.10.3 on all sheathable areas of all exterior walls, and interior braced