# State Residential Code Requires Sealing Cold Air Returns

1.1.2019

In an unpublished opinion in *Forner v Township of Spring Lake*, in which the Michigan Air Conditioning Contractors Association submitted an amicus curia brief, the Michigan Court of Appeals clarified apparent confusion over whether the Michigan 2015 Residential Construction Code requires sealing cold air returns. The Michigan Construction Code Commission had ruled sealing was required, and the Court of Appeals affirmed that ruling.

The Court initially reviewed the 2015 Michigan Residential Code, noting it provides in Chapter 11 N1103.2 that "[d]ucts and air handlers shall be in accordance with Sections N1103.2.1 through N1103.2.3." R201 and R202 define a "duct system" as:

> A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans, and accessory air-handling equipment and appliances.

A "plenum" is defined as a "chamber that forms part of an air-circulation system other than the occupied space being conditioned." The term "cold air return" is not separately defined.

N1103.2.1 in relevant part provides:

> All portions of the air distribution system shall be installed in accordance with section M1601 . . .
>
> N103.2.2 requires mandatory sealing of ducts as follows:
>
> > Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the International Mechanical Code or International Residential Code, as applicable.

Chapter 16 of the 2015 Michigan Residential Code governs duct systems. M1601.1.1 provides in relevant part as follows:

## Related Services

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> Above-ground duct systems shall conform to the following:
>
> > 7. Stud wall cavities and the spaces between solid floor joists to be used as air plenums shall comply with the following conditions:
> >
> > > 7.3 Stud wall cavities shall not convey air from more than one floor level.
> >
> > > 7.4 Stud wall cavities and joist-space plenums shall be isolated from adjacent concealed spaces by tight-fitting fireblocking in accordance with Section R602.8.

M1601.4.5 requires that all duct installations must be fireblocked in accordance with R602.8 which provides that fireblocking shall be provided in accordance with R302.11. R302.11 provides:

> In combustible construction, fireblocking shall be provided to cut off both vertical and horizontal concealed draft openings and to form an effective fire barrier between stories, and between a top story and the roof space.
>
> Fireblocking shall be provided in wood-framed construction in the following locations:
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> > 1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs, as follows:
> >
> > 1.1. Vertically at the ceiling and floor levels.
> >
> > 1.2. Horizontally at intervals not exceeding 10 feet (3048 mm).
> >
> > 4. At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion. The material filling this annular space shall not be required to meet the ASTM E136 requirements.

Read together, N1103.2, N1103.2.1, M1601.1.1, R602.8, and R302.11 require sealing of cold air return ducts. The language of these provisions lack ambiguity, and they all cover the same subject. For these reasons, the Court of Appeals concludes that the Commission's interpretation of the 2015 Michigan Residential Code regarding the sealing of cold air returns was correct.

Should you have been laboring under the same code interpretation as Forner before this ruling, please take measures to ensure all work going forward meets this clarified interpretation and seal all residential cold air returns.

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