



MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL
BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

August 31, 2023

Mr. Tony Duttera
Beekman Point Engineering
295 Seven Farms Drive, Suite C321
Daniel Island, SC 29492

RE: 2018 NCMC Section 601.2: Air movement in egress elements.

Mr. Duttera:

This letter is in response to your request for formal interpretation to the Office of State Fire Marshal ("OSFM") dated April 7, 2023, which NCDOI received by email on April 10, 2023.

Your letter states in relevant part:

"I am requesting an official code interpretation for NCMC 601.2. I have recently spoken to Mr. Mark Tuttle of Greensboro City plan review. Greensboro has rejected many plans to return air through transfer duct/grilles from one building area to another building area that is not a corridor as defined by IBC Ch.2. Mr. Tuttle said they were instructed by NCDOI to consider any part of a building that its occupants would use to egress the building as a 'corridor' and to not allow air movement as such. In essence, this interpretation considers all area enclosed by a building exterior wall as a corridor and as a result Greensboro has prevented returning air through any building component, not just an IBC defined corridor. Accordingly, Greensboro plan review has rejected plans and their inspectors have denied certificates of occupancy for returning air in through any building space component.

Following receiving these comments from Mr. Tuttle, I contacted ICC mechanical division for a code interpretation of the term corridor and if the IBC chapter 2 specific definition of corridor was meant to be applied to IMC 601.2 or if a wider interpretation of corridor was intended by IMC as Greensboro has applied. Mr. Chris Holland of the ICC mechanical area provided a response that the ICC considers 601.2 to only apply to corridors (as defined in IBC Ch 2) and not other building areas. Mr. Holland said 601.2 does not restrict the use of transfer air from the offices to an open office or any other non-corridor. He further stated the ICC typically defines a corridor as being roughly 5ft in width and it is enclosed (per the IBC definition). I passed this information on the Mr. Tuttle and he said that he heard from DOI to interpret IMC 601.2 as any area with personnel egress and not to limit 601.2 to just an IBC defined corridor. He also said that ICC interpretation was irrelevant to NC. I asked where I could find documentation on this guidance, and he told me it was handed down from reviewer to reviewer and not a written directive.

Mr. Holland's number is (888) 422-7233, ext. 4314. He told me that he would be happy to discuss this matter and the ICC interpretation with anyone.

Recently, I requested a code interpretation via email from NCDOT on this matter and the NCDOT response agreed with the ICC interpretation. Greensboro has not accepted both interpretations and now requires a formal NCDOT interpretation. I am concerned about the financial impact to the community of Greensboro by delaying implementing two independent agency interpretations and request NCDOT accelerate this review to relieve further financial burden on the greater construction industry and facility owners."

Remarks:

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request.

Code Analysis: Unless one or more of the exemptions of 2018 NCMC 601.2 apply, corridors, whether they are fire-resistant rated or not, are prohibited from being used as air distribution system components. This is to prevent air movement and pressure differentials that could allow smoke to enter corridors and therefore compromise means of egress from a building during an emergency event.

2018 NC Mechanical Code

601.2 Air movement in egress elements. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a corridor as a source of *makeup air* for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of *makeup air* taken from the corridor.
2. Where located within a *dwelling unit*, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m²) or less in area, use of corridors for conveying return air is permitted.
4. Incidental air movement from pressurized rooms within health care facilities, provided that the corridor is not the primary source of supply or return to the room.

....

2018 NC Building Code and 2018 NC Fire Code

1020.5 Air Movement in Corridors. *Corridors* shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a *corridor* as a source of makeup air for exhaust systems in rooms that open directly onto such *corridors*, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such *corridor* is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the *corridor*.

2. Where located within a *dwelling unit*, the use of *corridors* for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m²) or less in area, utilization of *corridors* for conveying return air is permitted.
4. Incidental air movement from pressurized rooms within health care facilities, provided that the *corridor* is not the primary source of supply or return to the room.

....

Code Analysis: Corridors are an enclosed exit access component that define a path of egress travel and can be completely enclosed with walls or enclosed with partial-height walls.

2018 NC Building Code and 2018 Fire Code

Chapter 2 Definitions

CORRIDOR. An enclosed *exit access* component that defines and provides a path of egress travel.

....

Conclusions:

If a space or area in a building meets the definition of a 'CORRIDOR' as noted in 2018 NCBC and 2018 NCFC Chapter 2 Definitions, then it is prohibited from being used for air movement as noted in 2018 NCMC 601.2 as that corridor is being used as an egress element. Definitive length, width or wall height dimensions do not exist that define a corridor by code in the application of 2018 NCMC 601.2. A space or area may meet the definition of a corridor even if it is not identified on a set of drawings or by a room tag by name as a corridor. If an area or space has walls or other items that completely enclose it and the area or space acts as an exit access component that defines and provides a path of egress travel, then that area or space is defined as a corridor. If an area or space has partial-height walls or other items such as cubical furniture walls and glass that substantially enclose it and the area or space acts as an exit access component that defines and provides a path of egress travel, then that area or space is defined as a corridor in the application of 2018 NCMC 601.2 only if air movement and pressure differentials are created that allow smoke to compromise means of egress from a building during an emergency event. If the permit holder, contractor, designer or owner can demonstrate to the code official via drawings or air balance calculations that air movement and pressure differentials do not allow smoke to compromise means of egress from a building during an emergency event, the intent of the code in the application of 2018 NCMC 601.2 to completely enclosed corridors and substantially closed corridors is met.

Sincerely,



David B. Rittlinger, PE, LEED AP
(Interim) Deputy Commissioner of Engineering
Chief Code Consultant
NCDOI-OSFM Engineering & Codes Division

cc: Bridget Herring, Chair – BCC
Mark Matheny, Vice-Chair – BCC
Michael Ali, Chair, Commercial Super Committee - BCC
Nathan Childs, Esq., NCDOJ, counsel for NC Building Code Council, nchilds@ncdoj.gov
Mark Tuttle, Plans Examiner, Mechanical and Plumbing – City of Greensboro Engineering & Inspections

ATTACHMENT A



**APPENDIX E
APPEALS
NORTH CAROLINA
BUILDING CODE COUNCIL**
325 North Salisbury Street, Room 5_44
Raleigh, North Carolina 27603
(919) 647-0095

APPEAL TO NCDOI/NCBCC Hearing Date ____ / ____ / ____
GS 153A-374, GS 160A-434 | GS 143-140, GS 143-141
Formal Interpretation by NCDOI _____ | Appeal of Local Decision to NCBCC _____
Appeal of Local Decision to NCDOI _____ | Appeal of NCDOI Decision to NCBCC _____

APPELLANT Tony Duttera **PHONE** (860) 281 - 6250 x _____
REPRESENTING Self
ADDRESS 295 Seven Farms Drive, Suite C321
CITY Daniel Island **STATE** SC **ZIP** 29492
E-MAIL tony@bpe-eng.com **FAX** (_____) _____ - _____


North Carolina State Building Code, Volume Mechanical - Section 601.2

REQUEST ONE: Formal Interpretation by NCDOI Appeal of Local Decision to NCBCC
 Appeal of Local Decision to NCDOI Appeal of NCDOI Decision to NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

See attached.

REASON:
See attached.

Signature  DATE: 4/7/2023 APPEAL TO NCDOI/NCBCC FORM 3/14/17

I am requesting an official code interpretation for NCMC 601.2. I have recently spoken to Mr. Mark Tuttle of Greensboro City plan review. Greensboro has rejected many plans to return air through transfer duct/grilles from one building area to another building area that is not a corridor as defined by IBC Ch.2. Mr. Tuttle said they were instructed by NCDOI to consider any part of a building that its occupants would use to egress the building as a 'corridor' and to not allow air movement as such. In essence, this interpretation considers all area enclosed by a building exterior wall as a corridor and as a result Greensboro has prevented returning air through any building component, not just an IBC defined corridor. Accordingly, Greensboro plan review has rejected plans and their inspectors have denied certificates of occupancy for returning air in through any building space component.

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202.9 Appeals

202.9.1 Engineering Division. A written technical interpretation shall be provided as specified in Section 203.2.1.2. Any person may appeal in writing an order, decision, or determination pertaining to the code or any state building law by filing written notice with the Commissioner of Insurance or his designee within ten (10) days after the order, decision, or determination. A copy of the appeal shall be furnished to each party.
(General Statutes 143-140, 153A-374 and 160A-434)

203.2.1 Interpretations

203.2.1.1 Informal Interpretations. The Engineering Division shall provide informal interpretations on code related matters either by e-mail, letter or telephone. These informal interpretations may be accepted by the local code enforcement official or party requesting the interpretation. Either party may request a formal interpretation of the code.

203.2.1.2 Formal Interpretations. Any person may request in writing a formal interpretation of the code. The request shall be addressed to the Chief Code Consultant for the Department of Insurance. The request shall be specific and shall reference the code sections in question. All formal interpretations shall be in writing. A formal interpretation shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. Formal interpretations determined to be of a general nature may be posted on the Department website. (General Statute 143-140)

203.2.2 Appeals. Any person may appeal in writing an order, decision, or determination of a code enforcement official pertaining to the code or any state building law. The appeal shall be addressed to the Chief Engineer for the Department of Insurance by filing written notice within ten (10) days after the order, decision, or determination. The appeal shall contain the type and size of the building in question, the location of the building, and shall reference the code sections in question. The decision shall be in writing and shall set forth the facts found. The decision rendered shall be based on the technical provisions of the code, public health and safety and shall be construed liberally to those ends. A decision shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. A copy of the appeal and written decision shall be furnished to each party. (General Statutes 153A-374 and 160A-434)

202.9.2 Building Code Council. The Building Code Council shall hear appeals from the decisions of State enforcement agencies relating to any matter related to the code. Any person wishing to appeal a decision of a State enforcement agency to the Building Code Council shall give written notice of appeal as follows:

202.9.2.1 Twenty one (21) copies including an original of the Notice of Appeal shall be filed with the Building Code Council c/o NC Department of Insurance, Engineering Division, 325 North Salisbury Street, Room 5_44, Raleigh, NC 27603 and one (1) copy shall be filed with the State enforcement agency from which the appeal is taken.

202.9.2.2 The Notice of Appeal shall be received no later than thirty (30) days from the date of the decision of the State enforcement agency.

202.9.2.3 The Notice of Appeal shall be legibly printed, typewritten or copied and shall contain the following:

- (1) Name, address of the party or parties requesting the appeal.
- (2) The name of the State enforcement agency, the date of the decision from which the appeal is taken, and a copy of the written decision received from the enforcement agency.
- (3) The decision from which the appeal is taken shall be set forth in full in the Notice of Appeal or a copy of the decision shall be attached to all copies of the Notice of Appeal.
- (4) The contentions and allegations of fact must be set forth in full in a clear and concise manner with reference to the sections of the code in controversy.
- (5) The original Notice of Appeal shall be signed by the party or parties filing appeal.
- (6) The Notice of Appeal shall be received by the first day of the month prior to the Building Code Council's quarterly scheduled meeting in order to be placed on the agenda for that meeting. The Chairman may schedule a special meeting to hear an appeal.

202.9.2.4 Upon the proper filing of the Notice of Appeal, the Building Code Council Secretary shall forward one (1) copy of the Notice of Appeal to each member of the Building Code Council. The Chairman may appoint a Hearing Committee to hear appeals. The Secretary shall send notice in writing to the party or parties requesting an appeal and to the Building Code Council Hearing Committee members at least fifteen (15) days prior to the Hearing Committee meeting. A written decision of the Hearing Committee meeting shall be provided to all Building Code Council Members. The actions of the Hearing Committee shall be final, unless appealed to the full Building Code Council in writing within 30 days of the Hearing Committee's action. If a Hearing Committee consists of at least seven Council members, it will constitute a quorum of the full Council. Further appeals shall be as specified in Section 202.9.3.

202.9.2.5 The Building Code Council shall, upon a motion of the State enforcement agency or on its own motion, dismiss appeals for the following reasons:

- (1) Not pursued by the appellant or withdrawn;
- (2) Appeal not filed in accordance with these rules; or
- (3) Lack of jurisdiction.

202.9.2.6 When the Building Code Council finds that a State enforcement agency was in error in its interpretation of the code, the Building Code Council shall remand the case to the agency with instructions to take such actions as the Building Code Council directs. When the Building Code Council finds on appeal that materials or methods of construction proposed are equivalent to those required by the code, the Building Code Council shall remand the case to the State enforcement agency with instructions to permit the use of such materials or methods of construction. The Building Code Council shall immediately initiate procedures for amending the code to permit the use of such materials or methods of construction.

202.9.2.7 The Building Code Council shall provide a written decision setting forth the findings of fact and the Building Code Council's conclusions to each party or parties filing the appeal and to the State enforcement agency from which the appeal was taken.

202.9.3 Superior Court. Whenever any person desires to appeal a decision of the Building Code Council or a decision of a State or local enforcement agency, he may appeal either to the Wake County Superior Court or the Superior Court of the county in which the proposed building is to be situated in accordance with the provisions of Chapter 150B of the General Statutes.
(General Statute 143-141(d))
