



DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE
BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: May 30, 2021

CODE INFORMATION

Proposed change to: ☒ Building Code ☐ Fire Safety Code
Code section(s): 905.1.1 Underlayment

PROPONENT INFORMATION

Name: Jim Carroll Representing: CT Roofing Contractors Ass
Telephone: (860) 467-1639 Email: jimpcarroll02@gmail.com
Address: 310R Newington Rd West Hartford CT 06110
Street Address Town State Zip Code

PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

Addition of "For New Construction Or Full Deck Replacement"

Proposed text change, addition or deletion (attach additional information as needed):

Attached.

Supporting data and documents (attach additional information as needed)

Attached.

- ☒ **This Proposal is original material.** (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)
- ☐ **This Comment is not original material, its source (if known) is as follows:** (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)

☒ **I would like to make an in-person presentation of my proposal.**

Release

I hereby grant the State of Connecticut full rights to the use of this material without benefit to me, including, but not limited to, publication and reproduction rights.

JP Carroll
Proponent's Signature

James P. Carroll
Printed Name

PLEASE EMAIL (PREFERRED) TO DAS.CodesStandards@CT.GOV OR MAIL OR FAX (SEE BELOW)

*Department of Administrative Services
Office of the State Building Inspector
450 Columbus Boulevard, Suite 1303
Hartford, CT 06103
Tel: 860-713-5900 Fax: 860-713-7410
Affirmative Action/Equal Opportunity Employer*

12/29/16



DEPARTMENT OF ADMINISTRATIVE SERVICES

PROPOSED CHANGE OF THE CONNECTICUT STATE
BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: _____

CODE INFORMATION

Proposed change to: ☐ Building Code ☐ Fire Safety Code

Code section(s): _____

PROPONENT INFORMATION

Name: _____ Representing: _____

Telephone: _____ Email: _____

Address: _____
Street Address Town State Zip Code

PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

Proposed text change, addition or deletion (attach additional information as needed):

Supporting data and documents (attach additional information as needed)

☐ **This Proposal is original material.** (Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)

☐ **This Comment is not original material, its source (if known) is as follows:** (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)

☐ **I would like to make an in-person presentation of my proposal.**

Release

I hereby grant the State of Connecticut full rights to the use of this material without benefit to me, including, but not limited to, publication and reproduction rights.

Proponent's Signature

Printed Name

PLEASE EMAIL (PREFERRED) TO DAS.CodesStandards@CT.GOV OR MAIL OR FAX (SEE BELOW)

*Department of Administrative Services
Office of the State Building Inspector
450 Columbus Boulevard, Suite 1303
Hartford, CT 06103
Tel: 860-713-5900 Fax: 860-713-7410
Affirmative Action/Equal Opportunity Employer*

12/29/16



May 28, 2021

Department of Administrative Services
State Codes & Standards Committee
Office of the State Building Inspector
450 Columbus Boulevard Suite 1303
Hartford, CT 06103

Re Proposed Change to CT State Building Code 905.1.1 Roof Assembly

Dear Mr. Chairman and Members of the Codes and Standards Committee,

The Connecticut Roofing Contractors Association (CRCA) represents companies with the highest levels of professionalism in the residential and commercial roofing industry. CRCA continually improves the technical and business-related education of the contractors, the monitoring of state and federal legislation that impacts the roofing industry, facilitate the effective delivery of resources to our members, shared resources with other roofing contractor association affiliates, and improving the general overall fellowship among roofing contractor members and their employees.

On behalf of the CRCA, I am requesting your consideration of a change to 905.1.1 of the building code. In 2018 the Code was amended to add a provision which changes the way residential roofing is done in CT. We are now required to utilize a 4" wide strip of self-adhering polymer-modified bitumen membrane (commonly referred to as MFM tape) to all joints in the roof decking before applying the underlayment over the entire roof.

While this 2018 change may make sense for new construction, there is little to no benefit to the homeowner who is re-roofing an existing roof where a multitude of nail holes already exists in the substraat due to removal of 1 or more layers of roofing. On this basis, we are requesting that the code be amended to clarify that the 4" MFM taping requirement be limited to new roofs only and or re-roofs that require a new plywood deck.

Attached is the proposed change form and we are requesting a hearing before the committee to discuss in more detail.

Thank you for your consideration,

A handwritten signature in cursive script that reads "JP Carroll".

James P. Carroll,
President Connecticut Roofing Contractors Association

CT Roofing Contractors Association
PROPOSED CHANGE TO CHAPTER 9 OF BUILDING CODE

New language in **BOLD CAPS**

***Summary:** Need to separate out new vs. existing roof structures. *Simply put we ask “FOR NEW CONSTRUCTION OR FULL DECK REPLACEMENT” language be incorporated before the requirement of the 4" taping.*

CHAPTER 9 – ROOF ASSEMBLIES (And) **R905.1.1** Underlayment. Underlayment for asphalt shingles, clay and concrete tile, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, wood shakes and metal roof panels shall conform to the applicable standards listed in this chapter. Underlayment materials required to comply with ASTM D 226, D 1970, D 4869 and D 6757 shall bear a label indicating compliance to the standard designation and, if applicable, type classification indicated in Table R905.

1.1(1). **FOR NEW CONSTRUCTION OR FULL DECK REPLACEMENT** A minimum 4-inch-wide (102 mm) strip of self-adhering polymer-modified bitumen membrane complying with ASTM D 1970, installed in accordance with the manufacturer’s instructions for the deck material, shall be applied over all joints in the roof decking. Underlayment shall be applied over the entire roof and over the 4-inchwide (102 mm) membrane strips and shall be applied in accordance with Table R905.1.1(2).

Underlayment shall be attached in accordance with Table R905.1.1(3).

Exceptions: 143

1. As an alternative, self-adhering polymer-modified bitumen underlayment complying with ASTM D 1970 installed in accordance with both the underlayment manufacturers and roof covering manufacturer’s instructions for the deck material, roof ventilation configuration and climate exposure for the roof covering to be installed, shall be permitted.

2. The 4-inch-wide (102 mm) strips of self-adhering polymer-modified-bitumen membrane are not required for roofs sheathed with lumber having a nominal width of less than 3 feet.

Why the need for this change?

When installing shingles, a team will use about 320 nails per 100 square feet of roof area. For every 4’ X 8’ sheet of plywood, there would be about 32 nail holes when the first roof is

installed. If a roof is removed and replaced, there would be 640 nail holes per 100 square feet of roof area (64 holes per sheet of plywood). Therefore, there is no benefit to the homeowner except for added cost to require small repairs on an already destroyed roof. However, we recognize this added underlayment would be beneficial for waterproofing on a new roof or full deck replacement that didn't already have several holes in it.

Building Science

Another alternative would be to say install 100% ice and water on all re-roofs. However, the installation of a self-adhered standard ice and water over the entire roof deck is not consistent with good building design to address moisture management. CT is located in Climate Zone 6. A typical 38 - 40 mil SA membrane has a perm rating of 0.05 making it a low Class I vapor retarder. The building code requires the installation of a minimum of a Class II vapor retarder (< 1.0 perms) to the warm side of the insulation. In a vented attic project, the VR would be installed under the insulation installed on the floor of the attic and if a SA were also installed on the roof deck, the assembly would then have two VRs that could result, potentially, with condensate developing on the underside of the decking or underneath the SA.

For spray foam installations under the roof deck; 2lb foam is a Class II vapor retarder so we would not install another VR on top of the deck due to this assembly would encapsulate the wood deck and reduce nearly all drying potential. With open cell foam, it is considered vapor permeable so that a VR would need to be installed to the interior face of the open cell foam. Then again, we would not want to install a Class I VR to the top of the deck for the same reason as stated above.

Conclusion

The taping of seams is an added burden in cost and production with minimal benefit to the home or building owner. We look forward to hearing from the Committee and request the opportunity to present our change at your convenience.