



Consider alternatives

Code interpretations, modifications and alternatives provide some code compliance flexibility

by Mark S. Graham

Building codes by their nature tend to be relatively restrictive; they limit designs, materials and construction methods to those specifically prescribed in codes and meeting the codes' performance requirements. However, most codes also contain provisions that allow code officials to accept limited, project-specific modifications and alternatives to code requirements.

You should be aware of a code's interpretation, modification and alternative acceptance provisions because these may provide a basis for acceptance of roof system designs and roofing products that do not specifically comply with a code's requirements.

Alternative acceptance

In Chapter 1-Scope and Administration of the *International Building Code*,[®] 2018 Edition, Section 104-Duties and Powers of Building Official grants a code official the authority to enforce the code, render interpretations and adopt procedures to clarify the code's provisions. Such interpretations and procedures are not intended to waive code requirements.

Section 104.10-Modifications gives a code official authority to



grant code modifications for individual cases where there are impractical difficulties involved in carrying out one or more code provisions. Upon application by the building owner or owner's authorized agent, a modification can be granted provided the code official finds a specific reason that makes the strict letter of the code impractical. Any modifications should comply with the code's intent and purpose and should not lessen health, accessibility, life and fire safety or structural requirements.

Section 104.11-Alternative Materials, Design and Methods of Construction and

Equipment gives a code official the authority to accept an alternative provided he or she finds it satisfactory and compliant with the intent of the code provisions. Similarly, a code official can accept an alternative material or method of construction provided he or she finds it to be not less than the equivalent prescribed in the code in quality, strength, durability, effectiveness, fire resistance and safety.

Code modifications and alternative acceptance typically apply only to the specific project for which they were granted by the code official.

If the alternative design, material or method of construction submitted to a code official is not accepted, the code official should respond in writing, indicating the specific reason(s) the alternative was not accepted.

Evaluation reports

When evaluating alternatives, such as roofing products that do not specifically comply with the code's requirements, code officials may request supporting information or data in the form of a research report from a recognized source. ICC Evaluation Services and UL Inc. are two recognized sources that issue such research reports, commonly referred to as "evaluation reports."

ICC-ES or UL can perform an evaluation of a product or system at a manufacturer's request to determine whether the product or system complies with a code's intent. The successful outcome of such an evaluation results in the issuance of an evaluation report. An evaluation report typically will indicate the specific code and code edition on which the evaluation was based and any specific use limitations or design and installation parameters necessary.

If a manufacturer has an evaluation report for a specific alternative product or system, it typically will make the report readily accessible to design professionals and contractors interested in using that manufacturer's product or system. Evaluation reports also are accessible on ICC-ES' and UL's websites.

An example where a product evaluation report may be useful is when seeking alternative code acceptance for synthetic steep-slope underlayments. Synthetic underlayments are not included in IBC 2018 largely because a consensus product standard for synthetic underlayment has not yet been published; ASTM International currently is developing one. By submitting a request for alternative material acceptance and using the

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specific synthetic underlayment manufacturer's evaluation report, the building official could permit the use of the synthetic underlayment using IBC 2018's Section 104.11.

Just ask

IBC 2018's interpretation, modification and alternative acceptance provisions may provide building owners and their representatives, designers and contractors a basis for acceptance of roof system designs and roofing products that do not specifically comply with code requirements.

Reroofing projects that involve buildings constructed to a previous code's or earlier code edition's requirements are likely situations where an interpretation, modification or alternative acceptance of the currently applicable code's requirements may be necessary.

NRCA encourages you to reach out to your authority having jurisdiction and code official when seeking code interpretations, modifications and alternative acceptance. 🌱🌿

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