



Keeping current

A new edition of The NRCA Roofing Manual is now available

by Mark S. Graham

In January, NRCA published its revised edition of *The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2022*. Following is a brief discussion of NRCA's manual update process and the new information in this volume.

The NRCA Roofing Manual

NRCA published its first technical manual, *A Manual of Roofing Practice*, in 1969, which was superseded by five editions of The NRCA Roofing and Waterproofing Manual published in 1981, 1985, 1989, 1996 and 2001.

Since 2007, the four-volume set of The NRCA Roofing Manual has been published as an individual volume each year on a four-year repeating cycle. The current version of The NRCA Roofing Manual consists of four volumes:

- *The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2022*
- *The NRCA Roofing Manual: Steep-slope Roof Systems—2021*
- *The NRCA Roofing Manual: Metal Panel and SPF Roof Systems—2020*
- *The NRCA Roofing Manual: Membrane Roof Systems—2019*



The manual represents NRCA's in-depth, best industry practices and technical information concerning the design, materials and installation of quality roof systems.

2022 volume

The 2022 volume consists of three primary sections addressing architectural metal flashing, condensation and air leakage control, and appendixes.

The Architectural Metal Flashing Section, Chapter 1-Guidelines Applicable to Metal has been updated as follows:

- Moving copper-coated stainless steel (Copper Plus) and zinc-tin-coated stainless steel (TCS II) to the Historic Metal section

- Updating the metal tables to include thickness tolerances and other pertinent data
- Adding information about color matching
- Updating information about oil canning, including adding information about tension precision leveling intended to minimize oil canning

Chapter 2-Guidelines Applicable to Low-slope Roof Systems and Chapter 3-Guidelines Applicable to Steep-slope Roof Systems have been revised to include information about shimming irregular walls and roof edges for metal roof edge flashings, parapet

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saddle flashings, additional counterflashing options, and inside and outside corner joinery.

In Chapter 4-Construction Details, information has been added addressing fire-retardant-treated wood that contacts metal. Also, 14 of the 61 construction details have been revised.

In addition, two appendixes have been added to the section describing ANSI-SPRI/FM 4435/ES-1 testing of edge metal and ANSI/SPRI GT-1 testing of gutters.

In the Condensation and Air Leakage Control Section, ASHRAE's new climate zone map has been added and references the most recent editions of ASHRAE standards, ASTM International standards, 2021 I-Codes and CAN/ULC standards.

In Chapter 3-Condensation Control and Ventilation of Steep-slope Roof Assemblies, additional vent options have been added.

In Chapter 4-Air Retarders for Roof Assemblies, NRCA updated its guidance for air retarders to be consistent with the 2021 International Energy Conservation Code®; ASHRAE 90.1-2019, “Energy Standard for Buildings Except Low-Rise Residential Buildings”; and ASHRAE 189.1-2020, “Standard for the Design of High-Performance Green Buildings,” all of which are substantially revised from their previous editions.

In the appendixes to this section, Appendix 2-U.S. Climate Zones, Appendix 3-Typical Thermal Properties of Building Materials and Appendix 6-Climate Design Information have been updated.

In the appendixes section, a new appendix, Appendix 1-Energy Code Compliance for Roof Systems, has been added describing energy code requirements for low- and steep-

slope roof systems based on IECC 2021's commercial and residential provisions. Also, Appendix 3-Considerations for Lightning Protection Systems, Appendix 5-Reference Organizations and Appendix 6-NRCA Technical Dictionary have been updated.

Getting it

NRCA members can view and download electronic versions of The NRCA Roofing Manual free of charge by accessing shop.nrca.net. Also, for the first time, NRCA has published The NRCA Roofing Manual—2022 Set as a fully linked PDF of the manual's four volumes, which allows for easy cross-referencing of sections, chapters and volumes.

Printed versions of the 2022 manual and other volumes of The NRCA Roofing Manual can be purchased by accessing shop.nrca.net.

What's next?

NRCA's Manual Update Committee is reviewing, revising and updating *The NRCA Roofing Manual: Membrane Roof Systems—2019* with the intention of publishing a new version in January 2023. If you wish to submit recommendations for revisions or additions to the manual, contact NRCA's Technical Services Section at (847) 299-9070, option 4, or nrca.technical@nrca.net.

NRCA remains committed to its more than 50-year precedent of maintaining its manual as a best practices technical reference concerning the design, materials and installation of quality roof systems. 🌟🌟

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Callback: *In the February issue, a comma was omitted from “Understanding R-value.” The sentence should read: “Designers may want to use R-values other than those based on a 75 F mean temperature when determining vapor retarder placement, for cold storage buildings, or in cold or hot climates, for example.” Professional Roofing regrets the error.*

Pamela Shinkoda joins ASTM International board of directors

Pamela M. Shinkoda, research associate and manager of technical solutions and quality for CGC Inc., Mississauga, Ontario, has joined ASTM International's board of directors. She will serve a three-year term.

ASTM International's board of directors is composed of 25 leaders from a variety of companies, associations and government bodies worldwide. CGC is a manufacturer and distributor of gypsum board products, interior finishing materials and suspended acoustical ceilings in Canada.

Shinkoda has served in her current role since 2015 and previously served as a technical manager and section manager of building products. She has been a member of ASTM International since 1998 and is past chairwoman of Committee C11 on Gypsum and Related Building Materials and Systems. Shinkoda also is a member of ASTM International's fiber-related cement products (C17), fire standards (E05), and building and environmental acoustics (E33) committees.



Shinkoda

ABC releases safety technology guide for contractors

Associated Builders and Contractors has made available its Safety Technology Resource Guide, according



to constructiondive.com. The guide is designed to assist contractors who want to implement new technology and innovate on job sites.

ABC's Safety Technology Resource Guide helps build the construction workforce's skills, increases safety and efficiency on job sites, and ensures contractors are in accordance with industry safety guidelines.

The safety guide addresses common issues contractors face while implementing technology on job sites. It includes general tips, cases and specific recommendations, as well as best practices for contractors, including:

- Start small, and test technology on one or two projects before rolling it out across all jobs.
- Assign a technology champion who is responsible for implementing the technology.
- Celebrate small wins and recognize success on any scale when innovating.
- Strategize a rollout to meet end users where they are.
- Identify necessary training for new technology and plan how training will be completed.
- Pair seasoned professionals with digital natives to create opportunities for employees to connect with one another, create a more inclusive culture, improve safety and raise efficiency with technology.
- Note what works and what doesn't to double down on successes and avoid repeating mistakes.

"To be a leader in the industry, contractors must be willing to innovate to deliver work and ensure our workforce gets home safely every single day," says Matthew Abeles, ABC vice president of construction technology and innovation.

ABC's Safety Technology Resource Guide is available at abc.org/safety-tech.

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