## **RESEARCH+TECH**



# The first step

ICC's 2024 code development process has begun

by Mark S. Graham

rom April 11 to May 5, NRCA's technical services staff participated in the International Code Council®'s Group A committee action hearings for development of the 2024 I-Codes. More than 1,250 code change proposals were considered during 200 hours of virtual committee hearings. Of these, 32 proposals directly applied to roof assembly design and installation. The following highlights some of the roofing-related proposals and an explanation of the next steps in ICC's process.

#### Group A changes

ICC split its development process for the 2024 I-Codes into two groups with Group A occurring this year and Group B occurring in 2022. Although most of the roofing-related content in the International Building Code®'s Chapter 15-Roof Assemblies and Rooftop Structures and International Residential Code®'s Chapter 9-Roof Assemblies falls within Group B, several roofing-related topics were addressed this year, including attic ventilation, rooftop occupancy requirements, the plumbing code's roof drainage requirements and the fire code.

ICC's General Committee approved Code Changes G159 and



G160 relating to IBC's requirements for attic ventilation. Code Change G159 establishes minimum percentages of airimpermeable insulation in unvented attics. Code Change G160 corrects the minimum required vapor diffusion port area in unvented attics using airpermeable insulation installed in Climate Zones 1. 2 and 3 from 1:600 to 1:150. The code change proposal's proponent indicated the 1:600 ratio in IBC 2021 technically is incorrect and a minimum of four times more diffusion port area is needed.

ICC's Fire Committee approved two changes relat-

ing to attic ventilation in the International Wildland-Urban Interface Code.® Code Change WUIC14 establishes an attic vent's maximum screen opening size of 1/8 of an inch to resist the entry of burning embers through attic vents.

Code Change WUIC15 requires attic vent openings be tested according to ASTM E2886, "Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement," to resist burning embers and flames from entering attic spaces through attic vents. One concern with WUIC15 is ASTM E2886 only applies to intake vents. As a result, attic exhaust vents, such as ridge vents, may be interpreted as not being code-compliant.

ICC's General Committee also approved Code Change G20, which establishes occupant load, exit and egress requirements in IBC for occupiable roofs. Examples of occupiable roofs include vegetative roofs with assembly areas and rooftop patios and terraces. Previously, IBC had limited requirements applicable to occupied roofs and, as a result, interpretations varied.

ICC's Fire Committee approved Code Changes F15 and F16, which differentiate between vegetative roofs and landscaped roofs. With these code changes, a landscaped roof is a localized area on a roof that includes landscape planters, vegetation and hardscape. A vegetative roof is a roof assembly with vegetation throughout. IBC previously used the two terms interchangeably, which sometimes resulted in confusion and inconsistent implementation.

The Fire Committee also approved Code Change S10, which adds specific performance, drainage, and fire- and wind-resistance requirements to IBC for raised deck walkways on roof systems. An example of a raised deck walkway would be concrete pavers on pedestal supports over a membrane roof system. IBC previously did not specifically address raised deck walkways.

In addition, ICC's Fire Committee approved Code Change F197, which adds a new section to the International Fire Code,<sup>®</sup> Section 5003.13-Outdoor Rooftop Storage, Use and Handling addressing storage of hazardous materials and LP gas tanks on rooftops. Since IBC 2009, rooftop storage of materials was classified as outdoor storage; however, some IBC requirements contained minimum separation distances from buildings, which made rooftop storage impractical. This new section provides rooftop-specific guidance.

No code changes affecting roof drains, gutters or roof drainage systems were approved by ICC's Plumbing Committee.

#### Next steps

On May 24, ICC published its report of the committee action hearings, which includes the committee comments about the individual code changes and any modifications to the

## Code change proposals first will appear in the 2024 I-Codes

code change language from what was originally submitted. This report is accessible on ICC's website, iccsafe.org.

ICC will accept public comments until July 2.

From Sept. 22-29, ICC will hold a public comment hearing on Group A code changes in Pittsburgh. The public comments and an agenda for the public comment hearing will be posted on ICC's website by Aug. 13.

ICC's final action on Group A code changes will take place during ICC's online governmental consensus vote, which occurs after the September hearing.

ICC has established the deadline of Jan. 10, 2022, for submission of Group B code change proposals. ICC's Group B committee action hearing will be held March 27-April 6, 2022, in Rochester, N.Y. ICC's Group B public comment hearing will be held Sept. 14-21, 2022, in Louisville, Ky.

Code change proposals approved through ICC's Group A and B processes first will appear in the 2024 I-Codes, likely in late 2023.

NRCA will remain actively involved in ICC's code development process and will keep you apprised of developments.

MARK S. GRAHAM is NRCA's vice president of technical services.



### Weak passwords commonly used in the construction industry

Recent research from digital security company NordPass has revealed workers in the construction and manufacturing industries use shockingly weak passwords for workplace accounts. Weak passwords enable hackers to access accounts more easily.

The top 10 passwords used in the construction and manufacturing industries are:

- 1. Company name\*
- 2. password
- 3. aaron431
- 4. 123456
- 5. Company name eu\*
- 6. 123ccp
- 7. pass1
- 8. Company name\*
- 9. Company name\*
- 10. Company name\*

\* This password is a company's name or a variation of it (e.g. Company name2002).

Researchers analyzed data from public third-party breaches that affected Fortune 500 companies. The data included 15,603,438 breaches and were categorized into 17 industries. Researchers determined the top 10 passwords used in each industry, the percentile of unique passwords and the number of data breaches affecting each industry. The construction and manufacturing industries experienced 298,703 breaches; the percentile of unique passwords is 24%. "Businesses and employees have a duty to protect their customers' data," says Chad Hammond, security expert at NordPass. "One employee's weak password could potentially jeopardize the whole company if an attacker used the breached password to gain access to sensitive data."

According to a recent IBM report, the average global cost of a data breach is \$3.86 million. For U.S.-based companies, the cost is even higher—\$8.64 million. Costs usually come from lost business resulting from customers' diminished trust; fees associated with detection, escalation and notification of the breach; and post-response activities, such as credit report monitoring.

Employers and employees can take steps to help keep their accounts safe. Passwords should be unique, updated regularly and stored in a password manager. Multifactor authentication can be used where avail-

able for an added layer of security. Employers should educate employ-

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ees regarding password hygiene and potential risks and remind employees not to mix their work and personal accounts.

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### Management trends emerge in the construction industry

The COVID-19 pandemic has changed the way many industries-including constructionconduct business. Innovative solutions are becoming more widespread and are redefining how the construction industry will operate in a post-pandemic world, according to forconstructionpros.com.

The pandemic reportedly has decreased the

time it takes to adopt some trends from three years to less than one year. Following are some trends that have taken hold.

• Workforce safety and protective equipment. Before COVID-19, employers had been slow to adopt wearable technology. Now, more employers are incorporating wearable technology-



Until now, there was no way to use an out-of-the-box roof cap for venting dryers. Code disallows screens and requires a damper. Even when modified, other vents are too airflow restrictive.

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such as smart watches or smart construction helmets-to reduce safety threats on job sites, monitor workers who are not social distancing and for contact tracing.

• Use of efficient technology. Contractors have increased use of efficient technology-such as drones, building

information management and augmented reality-to help streamline project management, achieve effective results and reduce costs.

- Remote work and mobile access. Frequent use of remote and mobile applications resulting from the pandemic reveal avenues for communication, inspection and accountability during all stages of a project, such as apps for virtual meetings or measuring assistant apps. Mobile access allows the workforce and management team to communicate efficiently and avoid delays, boosting productivity.
- **Construction man**agement software solutions. The use of management software to streamline project tasks and reporting has gained ground in the construction industry. It allows remote access so companies can more easily manage projects, as well as plan and organize present and future projects, with increased efficiency and greater accuracy.