EXECUTIVE SOURCING GUIDE FOR THE COMPANIES THAT BUILD NORTH AMERICA

VOLUME 17, ISSUE 1

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It can be argued that the roof is the most important aspect of commercial construction.

RIGHT ON TOP

Here are some commercial roofing trends you should know about. BY TATSUYA NAKAGAWA

The world is changing at an extraordinary rate; improvements such as autonomous cars, personal space tourism, and major advancements in genetics, are on the edge of becoming mainstream. Silicon Valley and the tech sector as a whole aren't the only ones driving these changes. It's happening everywhere, and the commercial roofing industry is no different.

Aside from a building's foundation, it can be reasonably argued the roof is the most important aspect of a commercial construction project. If the roof isn't just right, it will have a serious effect on the overall success of the project and ongoing HVAC and maintenance costs. Within the commercial roofing sector, there are three main areas of change. These include evaluation and leak detection technologies, data analytics and sustainability, and performance.

Evaluation and Detection Technology

"Some of the biggest business trends now involve using technology to support roof evaluation and leak inspections," says Richard Rast, president of Bluefin LLC, a consulting company for commercial roofs. Technologies, like drones, once considered for entertainment purposes only, are fast becoming a critical part of a commercial roofer's tool kit.

Currently, drones are most commonly used for leak inspections and measurement. Commercial versions have a state-of-the-art camera with a range of five to seven km and flight times of up to 27 minutes. New software additions can be used to optimize report generation, map out optimal flight plans, and generate accurate 3-D models of the roof and the structure within hours.

According to the 2016 Census of Fatal Occupational Injuries put out by the U.S. Bureau of Labor Statistics, roofing has the fourth highest death rate at 48.6 per 100,000 workers. Therefore, it's a huge plus whenever you can keep your team off the roof and safely on the ground.

Other technologies, such as remote sensors and other in-field data collection systems, are much more common. For example, sensors can quickly and reliably test for moisture in the roofing system. Installed during the construction process, these sensors could displace many of the more destructive testing methods that are known to cause unnecessary damage to the roof system.

Data Analytics

With increased collectible data available to construction executives, the advancement in data analytics is particularly exciting. With the right data and a few clicks of the mouse, you can get the information you need to anticipate the operating and capital costs of your roof more accurately. For the property owner, this means they can reduce their expenditures and maximize the value of their property. "This is particularly prevalent among very large owners such as industrial REITs, large retailers and institutional owners," Rast says.

Sustainability and Performance

With the Green Roof Ordinance ("Initiative 300") in place at the start of the year, the established California Title 24 building code, and the strict Energy Star standards for energy efficiency, the push for sustainability is unstoppable. California's Title 24 focuses around the energy efficiency of new construction and additions or changes to residential and commercial building. The standard revises every three years; the 2019 plan becomes effective Jan. 1, 2020.

Construction executives should watch closely to see how these regulations develop and how businesses and property owners react to these changes. These types of regulations will eventually spread to other regions, with each area having a slightly different set of requirements. Executives actively involved in the process will be in an advantageous position.

Regulations are not the only place experiencing an overhaul. "Over the recent years, we've seen that material choices, as well as technology, have been getting upgraded and advancing, slowly phasing out of tar and gravel flat roofs, for example," says Kershan Bulsara from Ottawa-based Roofmaster.

There are a growing number of companies that are offering high-performance and environmentally sound solutions. Many options are more attractive than traditional roofing options like tar and gravel. Proven materials and roofing systems that are VOC-free, drinking water safe, cool-roof compliant, or have excellent insulating properties, are on the rise. Features such as high adhesion for wind and storm resistance and elasticity for impact resistance from hail, or other damage, are becoming more of a consideration for specifiers.

But beware of imitators, says Jef McCurdy from San Diego Roofing. "There is currently a race to the bottom. In the last year or so, we have seen the bids we are up against drop by about $1 a square foot. The quality of coatings is not improving overall. In a rush to be among the first to have primer-less silicone, manufacturers are making a hard push to unproven, or less-proven, products and techniques."

To busy construction leaders, the changes can feel overwhelming. But, if properly used, these trends will bring immediate returns on investment such as the increased ability to contain costs and to move through the roofing portion of the project more quickly without sacrificing quality or accuracy. Understanding that sustainable materials are not just an opportunity to call the project "green" to satisfy public concerns, but are actually an opportunity to deliver a better product at a comparable or lower price. Choosing materials that meet current and future legislative changes can save your customer future worry, headache, and additional expense. The changes can benefit everyone and likely make the workplace, or job site, safer too. ◆

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