2016
Annual Highlights
IBHS had a very productive 2016.

In addition to impressive progress that will help make commercial and residential structures more resilient (specifics of which are discussed below), the Institute focused and aligned staff and other resources to maximize efficiency and effectiveness. One notable internal change is the articulation of a set of IBHS core values. These core values were identified based on who IBHS is and how we want others to perceive us. They help us stay on the right path to fulfilling our members’ expectations, and provide an unchanging, common philosophy for IBHS staff. IBHS’ core values are:

- Credibility
- Integrity
- Professional Excellence
- Real-World Impact

As we move through 2017, IBHS core values will be on vivid display through our work to create resilient communities with stronger, safer homes and businesses that can stand up to Mother Nature.

In addition, during 2016, IBHS made significant progress with regard to increasing receptivity to Institute research findings, guidance and other initiatives among key audiences, including the roofing industry, public policymakers, and the construction industry. Such recognition and use of IBHS outputs is critical to advancing property loss mitigation on a broad scale. The highlights below demonstrate in many ways how IBHS’ expertise is being sought out – and even more importantly, how it is being acted upon.
Established best practices and guidance for commercial and residential roofs for inspectors, insurers, contractors, and others who work on – or act as advisors for – commercial and residential roofs.

Commercial roof-mounted equipment research yielded important data about potential benefits of using architectural screens to protect such equipment. In conjunction with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), IBHS scientists found that some screen configurations reduce wind loads on roof-mounted top equipment; in addition, design wind loads for the screens themselves were determined. These data will help engineers design appropriate attachments for both equipment and screens that will help prevent damage to and from roof-mounted equipment.

Commercial solar array research uncovered high wind performance issues for the types of ballasted, rack-mounted systems that are typical across the U.S. This study provided first-of-their-kind insights into how these systems actually perform (sliding and lifting) in below-design level wind events.

IBHS commercial roof research has been incorporated into a core engineering standard (ASCE 7-16) after the Institute found that significant increases in wind uplift pressure coefficients for perimeter areas of low-slope, commercial roofs were warranted. These increases will also be included in the 2018 edition of the International Building Code.

IBHS expanded commercial roofing test capabilities, which will enable the Institute to evaluate current performance test standards for various types of low-slope and steep-slope roofs.

A new asphalt shingle ID guide was produced to help IBHS members identify the manufacturer of asphalt shingles installed on a roof. This guide may be transformed into a digital guide in 2017.

A shingle manufacturer applied IBHS research findings to improve product durability against hail after IBHS found sub-par performance with regard to granule adhesion.

New insights into the characteristics of hail storms were developed by IBHS scientists by leveraging an existing public hail dataset from the Community Collaborative Rain, Hail & Snow Network (CoCoRaHS), as well as IBHS hail field and laboratory research. This work will provide stakeholders – including risk modelers – with findings focused on the relationship between hail occurrence and risk, size, and damage.

Research Reports Produced on Key Topics:

- Commercial Roof-Mounted Ballasted Photovoltaic (PV) Wind Protection on Low-Sloped Roofs
- American Modern Roof Aging Farm Climate Summary for 2015
- American Family Roof Aging Farm Climate Summary for 2015
- IBHS Roof Aging Farm Report: Data and Condition Summary for 2015
- Asphalt Shingle ID Guide

Videos and Animations Produced for Key Audiences:

- Sealed Roof Deck: Five animations demonstrating different methods for sealing the roof deck
- Roof Aging Farm Project
- Hail Production Machine: Design, Development, Installation and Implementation
Progress on Building Codes and Standards

Connecticut took significant steps to strengthen their state building codes, including measures specifically advocated by IBHS, such as mandating a sealed roof decks and stronger tie-downs of roofs to building structures, as well as impact-resistant glass in high-wind areas (one opening protection option in FORTIFIED Home).

IBHS provided extensive technical guidance to the Oklahoma Department of Insurance, which is exploring adding IBHS’ FORTIFIED High Wind/Hail standard as a voluntary appendix in a new state building code; the enacting legislation will be considered in 2017.

Several roofing manufacturers and trade organizations approached IBHS to discuss improvements to current test standards so their products could be evaluated in a more realistic way. IBHS and these organizations will advance that effort in 2017.

IBHS was able to make progress in several areas of the International Building Code, including better labeling of doors, improvements to roof cover underlayment requirements.

Commercial Lines Accomplishments

A new IBHS severe weather preparedness and response toolkit, EZ-Prep, was launched for Institute members can help their small business policyholders stay “open for business.” The U.S. Economic Development Administration endorsed the IBHS tool and featured it on RestoreYourEconomy.org, a central source of resources and best practices for both public and private sector interests.

IBHS’ OFB-EZ (Open for Business-EZ) program was incorporated into a City of New Orleans Business Continuity Planning Guide designed to help locally-owned businesses prepare for and respond to disasters through structural hardening and business continuity planning.

The first commercial building protection training was held for IBHS members, and based on very positive feedback from participants, a second training seminar is planned for October 2017.

The U.S. Green Building Council created three LEED certification pilot credits for FORTIFIED for Safer Business.

FORTIFIED Growth and Expansion

New research quantified an important piece of the FORTIFIED Home designation value proposition when a study entitled Estimating the Effect of FORTIFIED Home Construction on Home Resale Value, found that within Alabama’s Mobile and Baldwin Counties, when comparing conventional construction to a FORTIFIED Home-designated house (with all other variables held constant) the appraised value of the FORTIFIED house is 7 percent higher – and researchers expect that difference to grow as the market becomes more familiar with FORTIFIED. The study was conducted by the Alabama Center for Insurance Information and Research (ACIIR) at the University of Alabama, in conjunction with real estate and finance professors from Auburn University and the University of Mississippi.

The FORTIFIED Home™–High Wind and Hail standards were launched during the 2016 National Tornado Summit with Oklahoma Insurance Commissioner John Doak and other prominent policymakers and resilient organizations. Like FORTIFIED Home™–Hurricane, the new standards for inland areas can be applied to both new and existing homes. Several FORTIFIED construction projects are already underway, including a significant number of homes sponsored by Habitat for Humanity International.
A new pilot program utilizing the FORTIFIED Home – Hurricane Bronze Level standard to harden roofs along the coast of North Carolina was launched by the North Carolina Insurance Underwriting Association (NCIUA). This six-month pilot program, which began in January 2017, provides all NCIUA policyholders in two coastal rating territories with a free endorsement on their homeowner’s policy that provides for a free upgrade to FORTIFIED Bronze if a coastal policyholder suffers a covered loss during the pilot program that damages their roof more than 50 percent. IBHS supported NCIUA in all phases of program development, including technical assistance, development of public-facing marketing materials, training of evaluators, and other public policy issues.

Use of the FORTIFIED Home standards increased in 2016 from 2,055 in January to 3,355 by the end of the year. Evaluation capacity also grew from 26,250 per year in January to 30,000 per year in November as new FORTIFIED Evaluators were trained. IBHS also successfully rolled out FORTIFIED Wise™ in 2016, a new training workshop for insurers, realtors, architects, code officials, product manufacturers, builders and contractors.

Habitat for Humanity International (HFHI) adopted IBHS FORTIFIED Home standards in its new “Habitat STRONG” initiative, which as of year-end 2016 involved nearly 80 HFHI affiliates around the U.S., include regional groups in Alabama, Connecticut, Michigan, Mississippi, New Jersey, Ohio, and Texas. The program includes training, information and resources for HFHI affiliates using IBHS’ hurricane and high wind standards.

A new “FORTIFIED On the Go” mobile app developed by IBHS member Munich Re was launched and very well-received by state insurance regulators and many IBHS members. This dynamic new tool provides an interactive roadmap for builders, contractors and homeowners interested in FORTIFIED Home standards.

Public Policy Accomplishments

IBHS research and programs were spotlighted (and championed by senior Obama Administration representatives and others) on numerous podiums and from the audience during several White House events focused on increasing resilience to weather-related events. These events included:

- A conference emphasizing the critical role that building codes and standards (such as FORTIFIED) play in creating more resilient communities.
- A wildfire roundtable to discuss the many challenges related to increasing development in vulnerable areas.
- A forum on “Smart Finance for Disaster Resilience” focused on insurance, mortgage financing, bonds, tax incentives, and various innovative programs.
- A roundtable devoted to maximizing the resilience ROI.
- An insurance resilience briefing designed to create a lasting connection between the resilience activities of the Obama and Trump Administrations.

IBHS FORTIFIED Home standards were embraced by key federal agencies with the ability to help increase resilience of new and existing homes. HUD, VA and USDA, whose programs finance more than 20 percent of single family home mortgages, announced their support for higher building and retrofitting standards for resilience (specifically mentioning FORTIFIED Home). This action could significantly impact IBHS’ ability to motivate homeowners to act on IBHS wind mitigation guidance for new and existing homes in areas prone to hurricanes and severe convective storms. This also could provide a roadmap for working with the new Administration to strengthen commercial structures.

Progress with the roofing manufacturers was demonstrable in 2016. IBHS addressed the Asphalt Roofing Manufacturers Association (ARMA) Board of Directors for the first time last year. IBHS has carefully cultivated mutually respectful, productive working relationships with several ARMA Board members. The Institute now has non-disclosure agreements in place with seven of the largest manufacturers so open and frank sharing of IBHS research findings related to their products’ performance is possible. This transparent approach should accelerate progress in the building code and material performance standards arenas. These developments mark a significant improvement in the relationships with ARMA and its individual members.
Communications and Outreach Achievements

IBHS led a broad, impressive coalition of private and public sector entities in a public anti-roofing fraud education campaign using print and broadcast media as well as social media. The campaign was piloted in Colorado and reached nearly 500,000 people, where it was so well received by coalition partners that it will be conducted again in 2017 in Colorado and other states. This initiative is designed to be replicated in other locations with insurance trade organizations, state and local government entities, and business organizations.

IBHS produced a well-received, actionable Texas roof repair/replacement best practices guide following a series of severe storms that ripped through the state in spring 2016, damaging more than 10,000 roofs. The guide was also featured in regional and local media in storm-damaged areas.

IBHS received the 2016 Innovation Torchbearer Award from the Insurance Marketing & Communications Association (IMCA). Specifically, IBHS was recognized for consistently developing new and different ways to both conduct research and share findings through inventive, cutting edge communication methods and channels. IMCA noted that IBHS research has been, and continues to have, a positive impact on IBHS member companies in the areas of underwriting, claims, and reducing property losses.

Media by the Numbers

Print and Broadcast

- 41 million Total Estimated Viewers/Readers
- 3,759 News Articles
- 131 Broadcast Stories

Estimated Reach by Topic

<table>
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<tr>
<th>Topic</th>
<th>Reach</th>
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<tbody>
<tr>
<td>Hurricane/High Winds</td>
<td>10,450,000</td>
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<tr>
<td>Business Prep</td>
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<tr>
<td>FORTIFIED</td>
<td>948,000</td>
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<tr>
<td>Wildfire</td>
<td>655,000</td>
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Social/Digital

- 4.5% increase from 2015 in Facebook Reach (600,000 more people saw IBHS content)
- 6% increase from 2015 in Facebook Engagement (30,000 more people interacted with IBHS content)
- 6,000+ people reached by the first IBHS Facebook Live event
- 9% increase in Twitter followers from 2015

NOTE:
Percentage of stories that include FORTIFIED in other topics
- 39% Business Prep
- 35% Hail
- 22% Hurricane/High Wind
- 9% Wildfire

Facebook Reach

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