

BUILD WITH STRENGTH

NRMCA Updates

Mike Philipps, President

Agenda

- Change
- My Role at NRMCA
- My Vision for the NRMCA
- Alignment

Change

- New President
- New Chairman (Bill Sandbrook – US Concrete)
- New Office (Alexandria, VA)
- Old Building Sale
- New NRMCA/PCA Alliance
- NRMCA Restructuring

NRMCA President Role

- Commercial Lens
 - Seek out Efficiencies & Eliminate Redundancies
 - Streamline Processes
 - Instill a Sense of Urgency
- Build a High-Performing Promotion Team
- If necessary, Change the Culture
- Advocate for the Producer
- Be good stewards of our member's dues money

Vision

- Understand how we can help our members BEST, and get really good at it
- Develop our People – and offer programs to the NRMCA Members so you can do the same for your people
- Help find our future leaders
- Grow Membership

Future Leadership

Where can you find the next generation of
LEADERS?

Look no further than the
CIM
PROGRAM.


cim
CONCRETE
INDUSTRY
MANAGEMENT
www.concretedegree.com

Alignment

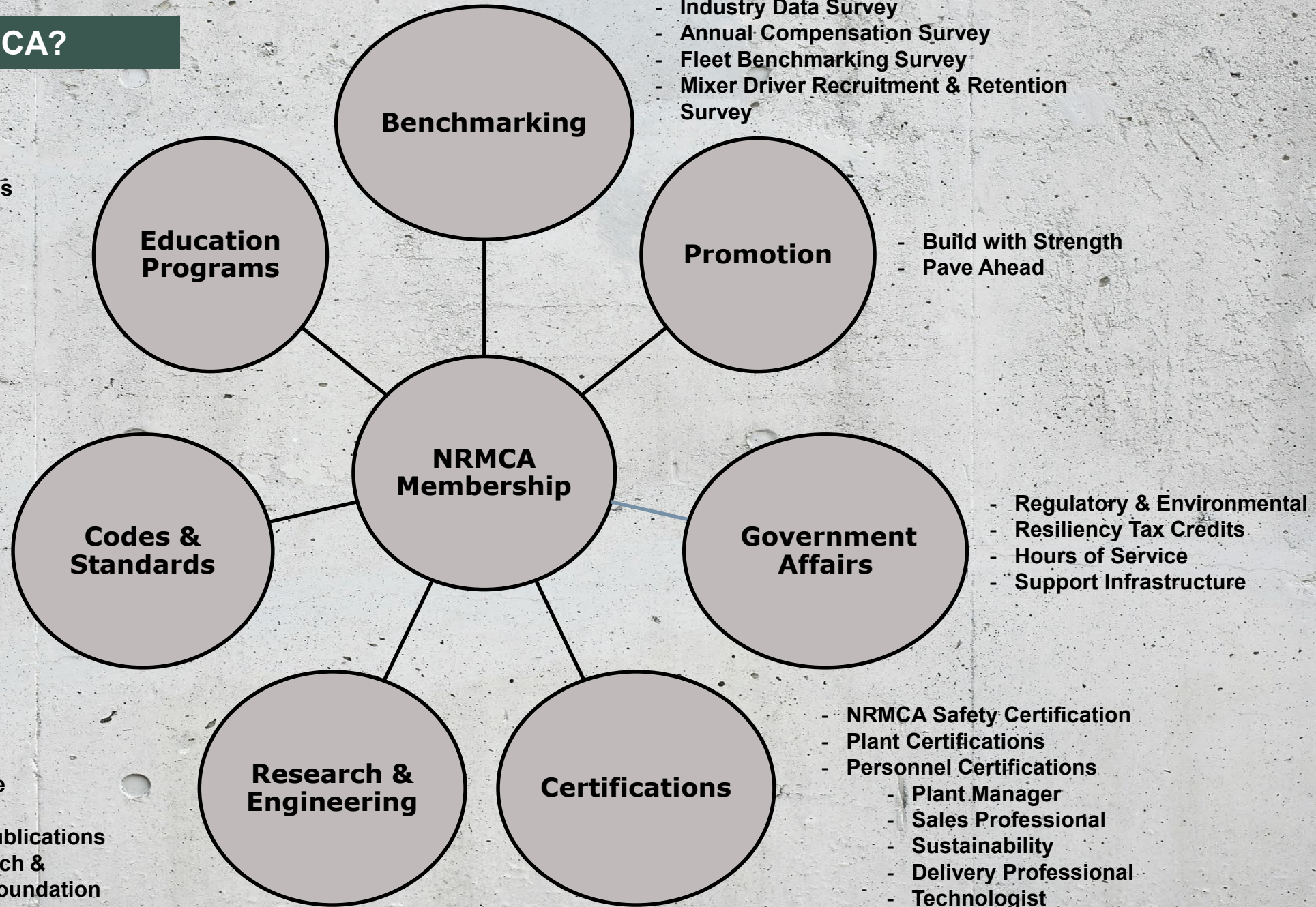
- Promotion Activities
- Communication on issues
- Messaging in the marketplace
- Representing ALL Producers of EVERY Size from EVERY Geography (Grow Membership)
 - Leadership
 - Match Services to Specific Needs

Why join NRMCA?

- Concrete Specifications
- Concrete Durability
- Leadership
- RMC Supervisor
- Dispatcher
- Financial Performance

- State & Local Advocacy
- Fire Codes
- Building Codes
- EPDs

- P2P Initiative
- NRMCA Lab
- Technical Publications
- RMC Research & Education Foundation

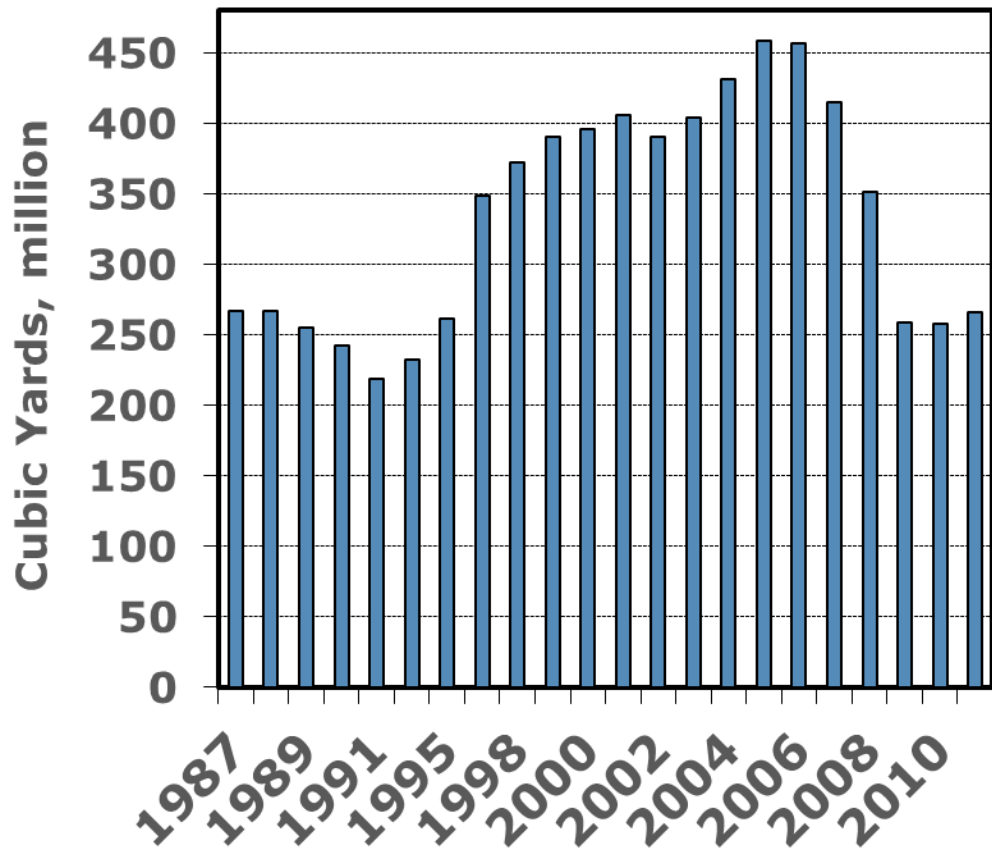


BUILD WITH STRENGTH

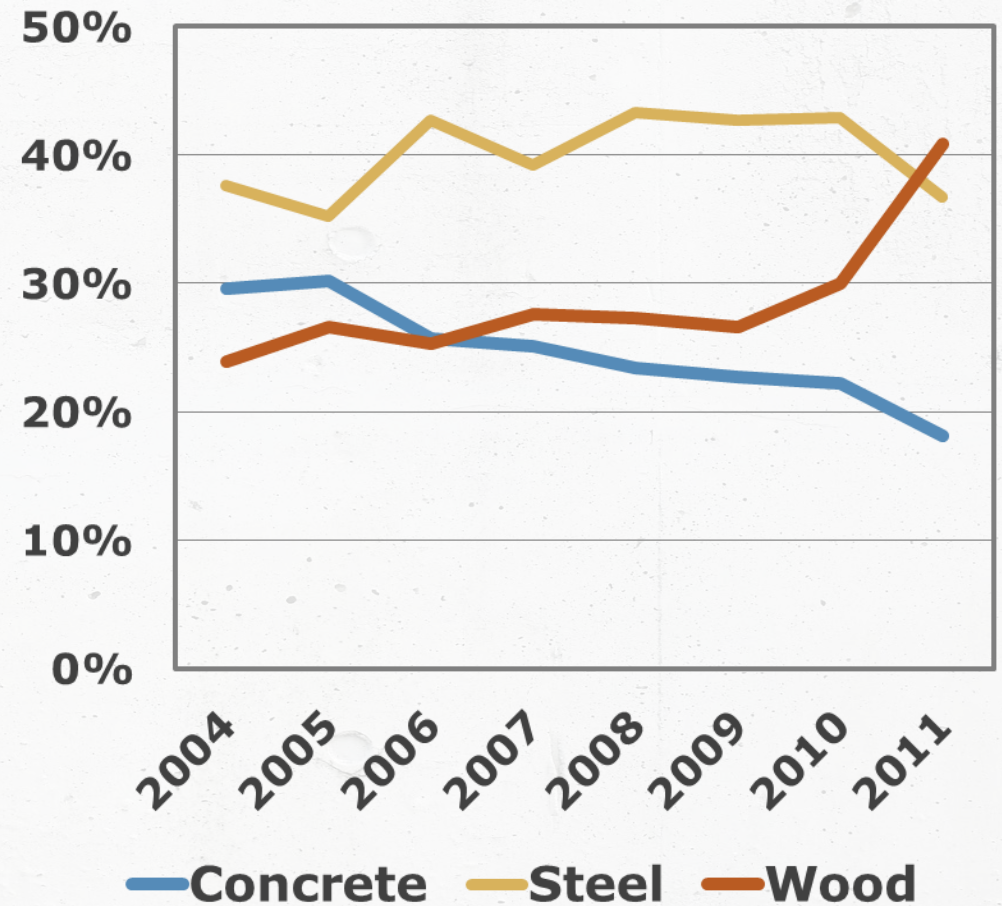
**Challenges and Opportunities
in the Building Market**

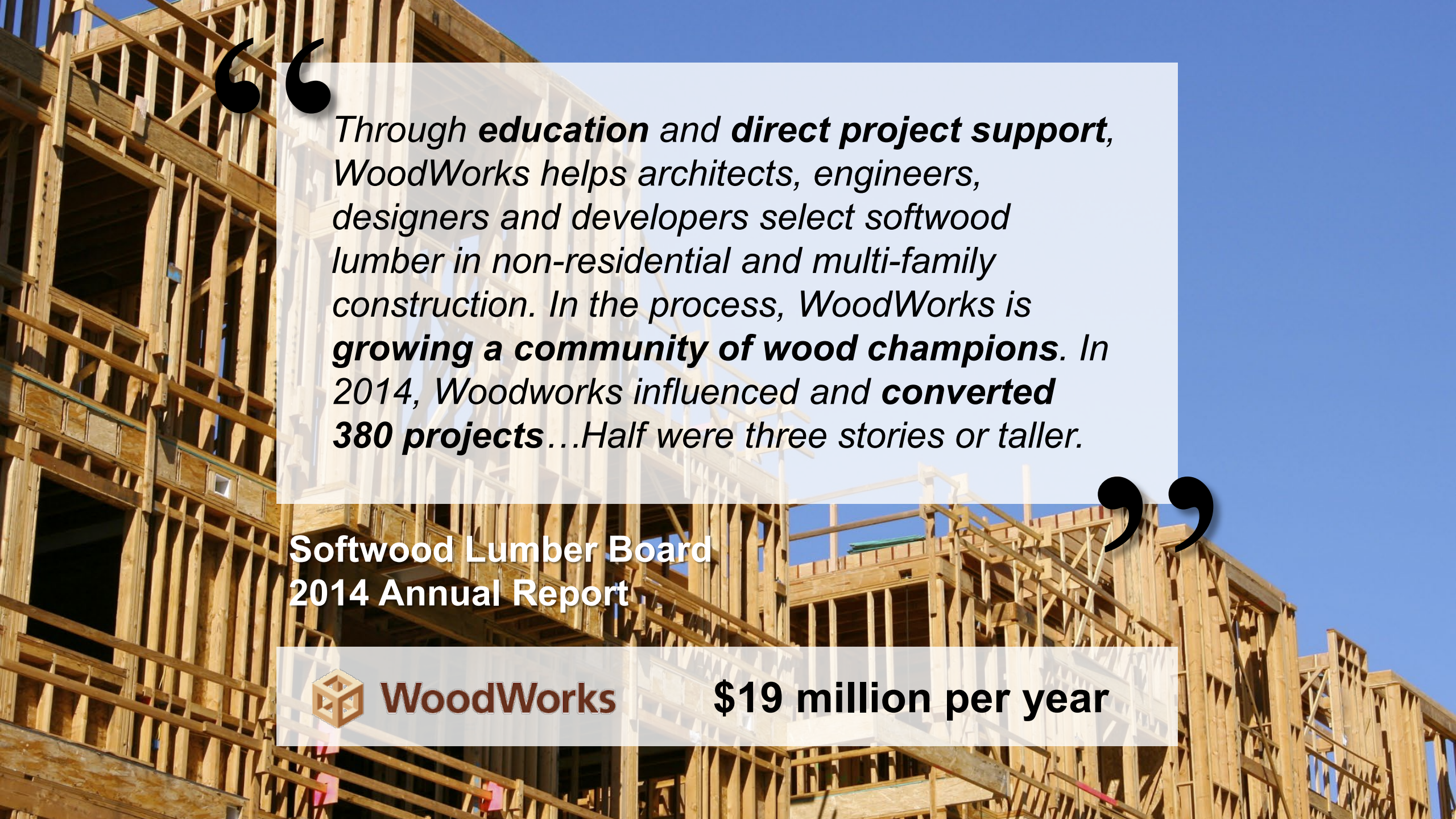
The Rude Awakening

RM Concrete Production



Share of Floor Area 4-7 Stories





Through **education** and **direct project support**, WoodWorks helps architects, engineers, designers and developers select softwood lumber in non-residential and multi-family construction. In the process, WoodWorks is **growing a community of wood champions**. In 2014, Woodworks influenced and **converted 380 projects**...Half were three stories or taller.

Softwood Lumber Board
2014 Annual Report



WoodWorks

\$19 million per year

4-7 stories | 200,000 ft²



7,000 yd³



2,000 yd³



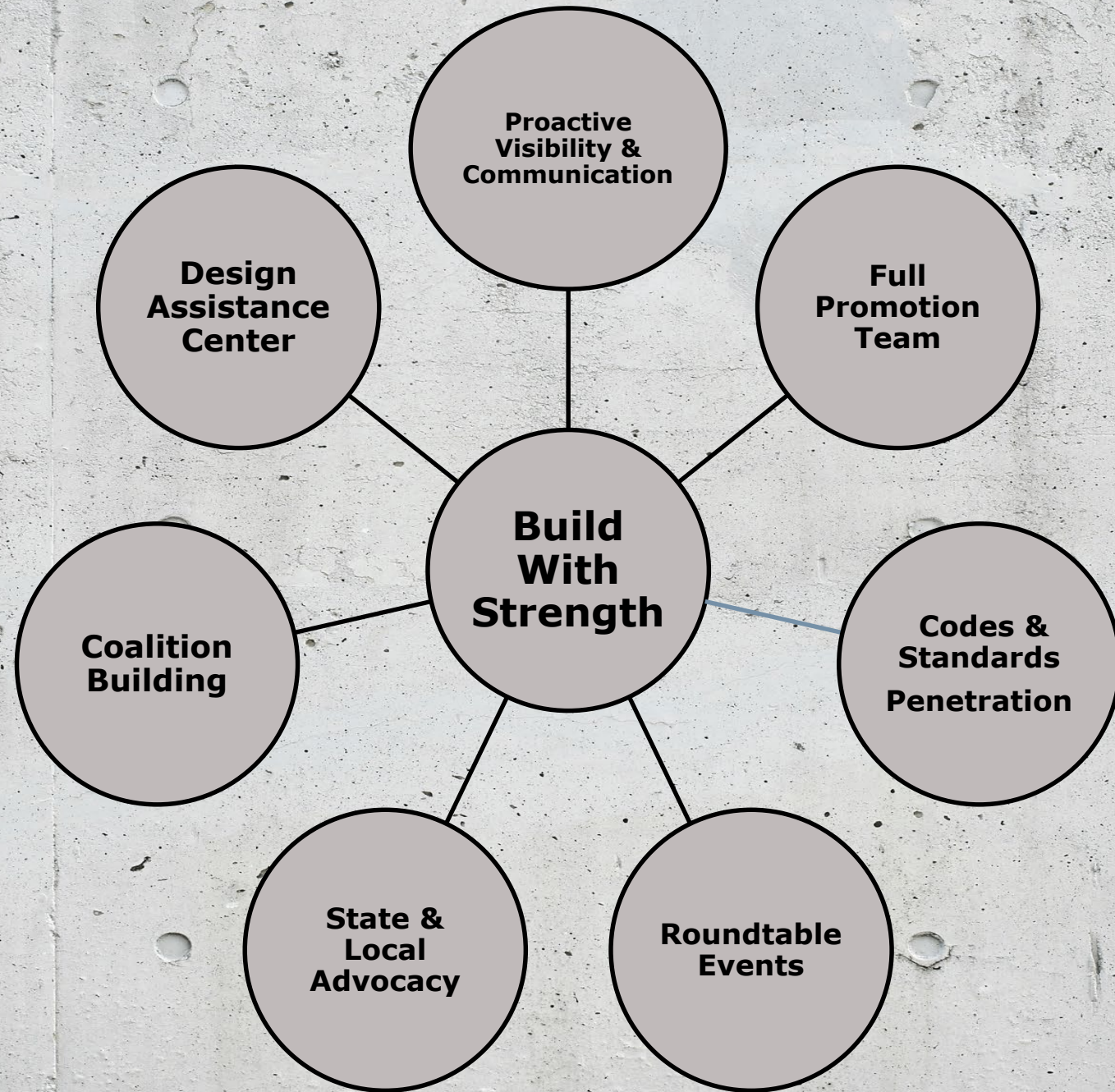
A Brief History

- 2011** NRMCA begins exploring Checkoff program
- March 2015** Advocates develop and promotes Checkoff
- 2012 – 2014** Industry not receptive to Checkoff
Members ask for building promotion plan
Fund with dues increase
- Sept 2015** Building promotion plan presented to board
Board approves plan
Doubles dues
- April 2016** Build with Strength launched



Strategy for Promoting Concrete For Low/Mid-Rise Buildings





Strategies



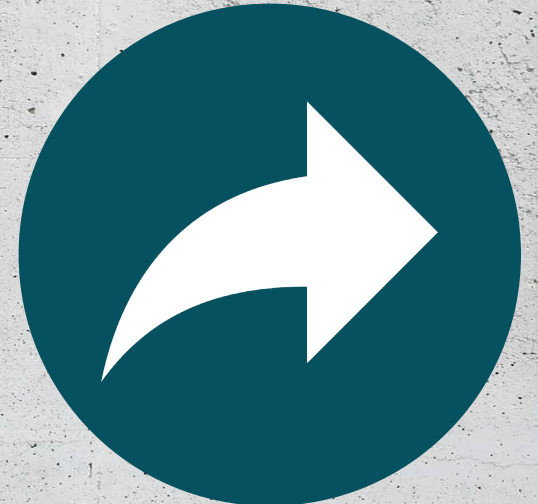
Communicate



Advocate

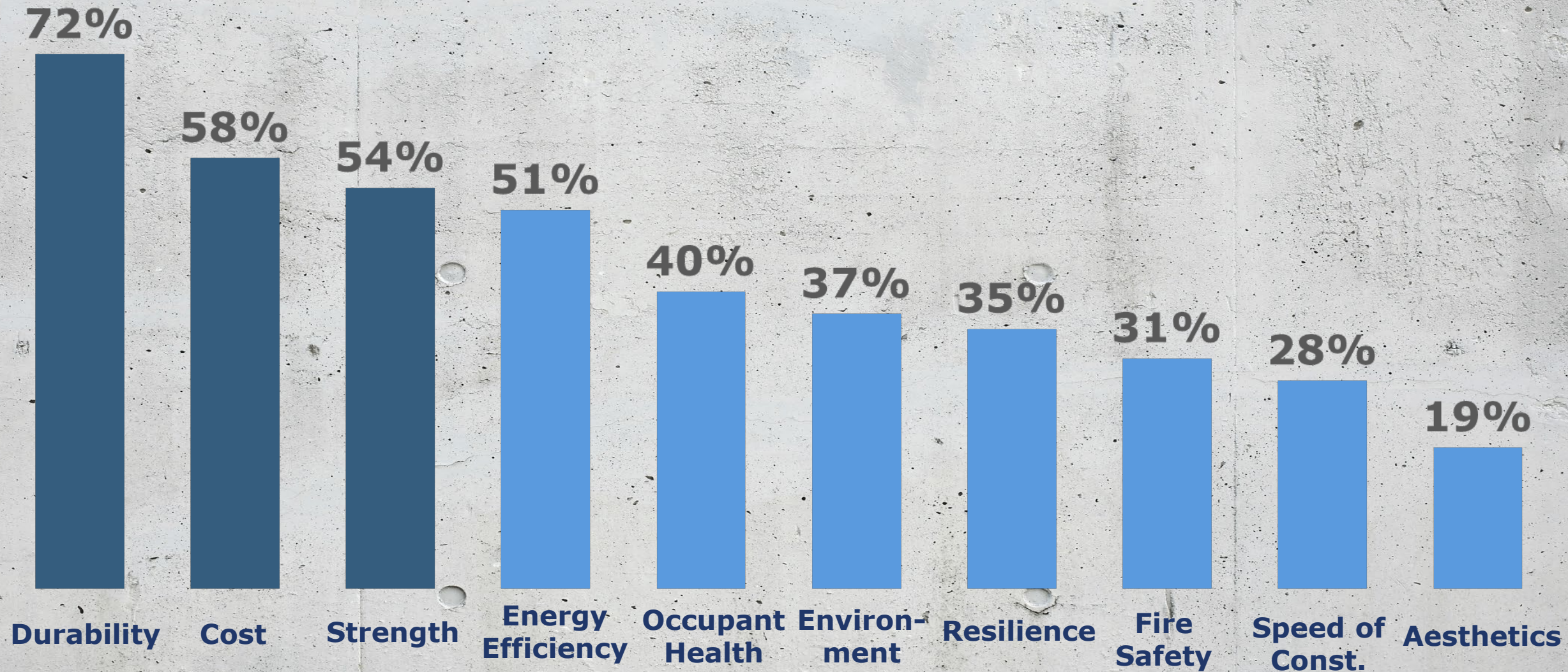


Promote



Connect

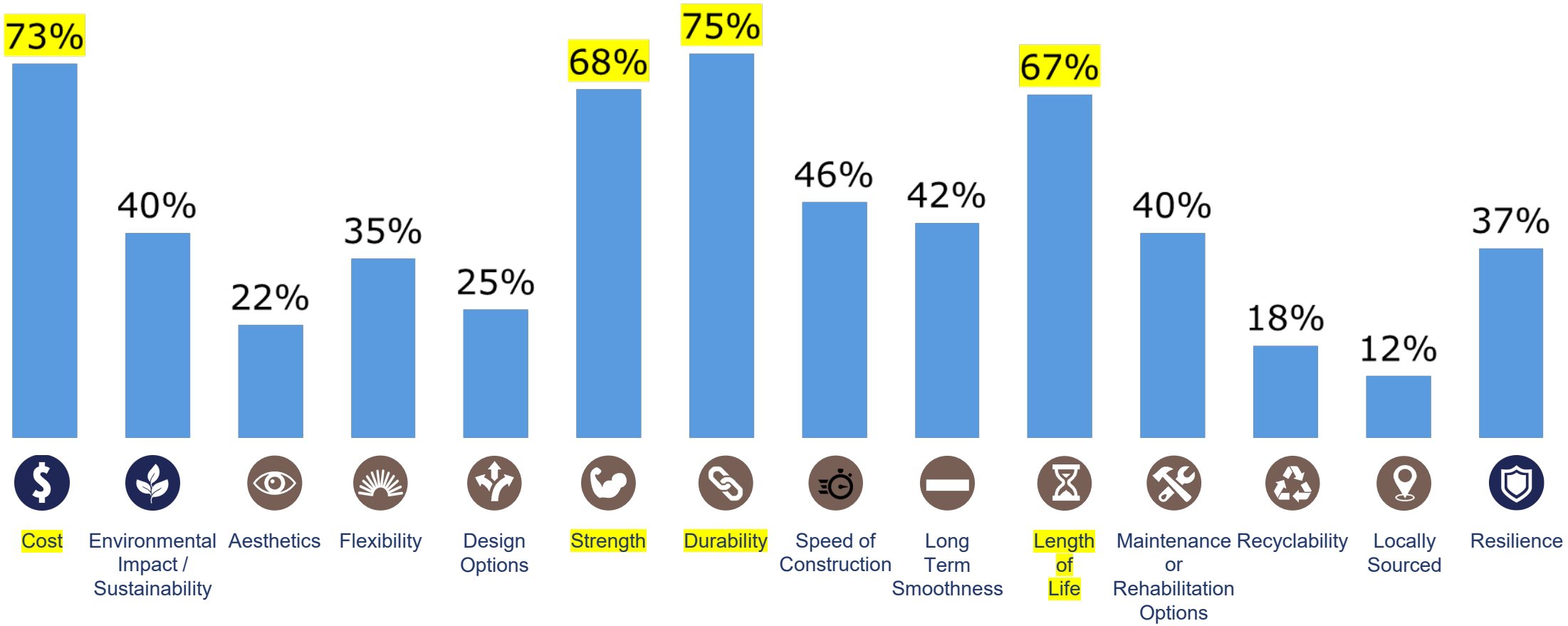
Communicate: Considerations for Material Selection





Most Important Attributes

Focusing on paving materials only, when choosing a paving material for parking lots, driveways, or roads, what are the top most important considerations?



Communicate

CASE STUDY: SUSTAINABILITY

FOURTH &

1800 E 4th St, Austin, TX 78702

Completed/Planned for Fall 2017
Project Size: 180,000 sq. ft.
Project Features: 37 residential units and 12,000 sq. ft. commercial space
Architect: Perry Craft Architecture + Design
Developer: Capgem Ventures

SUSTAINABILITY WITH A SMALL FOOTPRINT

When does a design team turn when they're focused on sustainability, flexibility, and a small footprint? Of course, the designers of the new Fourth & exclusively used concrete and steel in its framing structure, setting a new trend in the local midrise family developments. The 4-Star Austin Green Building is also the only building in East Austin to offer micro-40ft condominiums, small-footprint units slightly larger than a 1-car garage. Fourth & continues its focus on sustainable design with pre-insulated recycled steel panels, rooftop solar panels, and LED lighting throughout.

01. Unique Construction.
Fourth & uses no wood in the construction, only steel and concrete—it's a building with serious attention given to long-lasting materials.

02. Up to Snuff.
The site was formerly used as city warehouse space, and required environmental remediation to be suitable for the project.

03. Sustainable Urban Parking.
The Fourth & parking garage boasts 360 concrete panels. Lifted into place, the builders installed ten panels per day over a 60-day period.

04. Now that's a Foundation.
The Fourth & foundation used 800,000 pounds of concrete. That's 200 truckloads—just imagine a 2' x 2' block over a mile long.

BUILD WITH STRENGTH

A Division of the National Ready Mixed Concrete Association

HOMEPAGE

BUILD WITH STRENGTH

A DIVISION OF THE NATIONAL READY MIXED CONCRETE ASSOCIATION

MENU

GO BOLD. GO STRONG. GO CONCRETE.

01 **STAND WITH STRENGTH**
Nothing's stronger or more durable than ready mixed concrete. Before you build, see how it stacks up against other materials.

02 **WORK WITH CONCRETE**
Your next concrete project starts right now. Get valuable resources, building code information, innovative design ideas and more.

03 **SHAPE THE FUTURE**
Take a look at the innovative designs that can be built with concrete—from residential to high-rise and everything in between.

04 **VALUE YOUR INVESTMENT**
Concrete gives you a lasting return on your investment. It's efficient, maintenance-free, safe and resilient. Simply put, it stands up to anything.

ABOUT US | RESOURCES | EVENTS | MEDIA

SIGN UP FOR EMAIL Enter Email

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WHEN YOU BUILD WITH YOU BUILD WITH STRENGTH

LEARN MORE AT [BuildWithStrength.com](#)

BUILD WITH STRENGTH

A DIVISION OF THE NATIONAL READY MIXED CONCRETE ASSOCIATION

2:10 / 2:19

CONCRETE STANDS STRONG AGAINST HURRICANE SEASON

In the midst of a devastating hurricane season, concrete proves it can withstand the test of Mother Nature.

"The concrete holds up, but the wood doesn't."
- President Donald Trump

"Whether poured, cast in place, or insulated concrete forms, houses built with this nearly impervious material are about as durable as they can be."
- *Builder Online*

"For hurricane-prone coastal areas, you can't get more resilient than a concrete home."
- *Builder Online*

"If you had a wooden property or something that wasn't made from concrete, it's probably not there anymore."
- Antonio Benitas
- *CBS Pittsburgh*

"Hurricane Irma came knocking. Leaving her own wood frame home, she found shelter in a sturdy concrete building with friend."
- Jordan Adams, US Virgin Islands
- *ABC News 8*

"Most of the concrete homes were able to survive, but those made of wood and tin suffered heavy damage."
- *Daily Journal*

"But Hurricane Maria, she was a monster. It hit the island head on with a force that was hard to believe. My mom lives in a concrete home, so we had no fear about the house being blown away."
- Pedro Medina, Puerto Rico
- *The Trentonian*

"Insulated Concrete Forms can protect properties and people from the devastating effects of tornadoes, hurricanes, cyclones, strong winds and earthquakes."
- *Architecture and Design*

"Builders in these areas will undoubtedly be asked about concrete, one of the construction industry's most time-tested and tough building materials."
- *Builder Online*

"[Their home] avoided destruction because their buildings are built with concrete and other reinforced materials."
- *The Jerusalem Post*

"Our house is literally built for hurricanes, which is why we don't evacuate...The whole house is made out of concrete and so is the foundation."
- Bobby O'Leary, North Palm Beach, Florida
- *TCU 360*

BUILD WITH STRENGTH

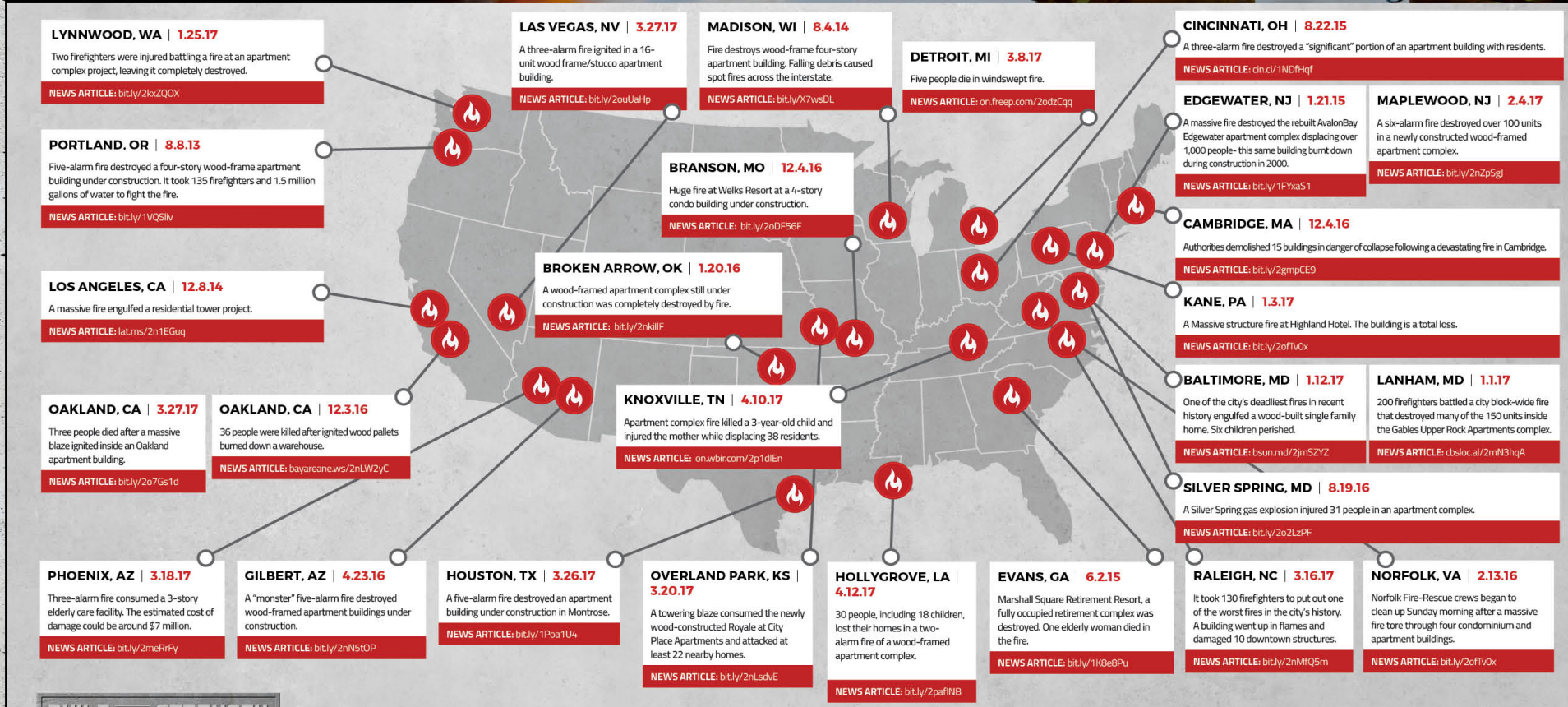
A DIVISION OF THE NATIONAL READY MIXED CONCRETE ASSOCIATION

To learn more visit [BuildwithStrength.com](#).

AMERICA IS BURNING

Fires of combustible materials are reducing apartment buildings to ashes and putting lives at risk.

The recent spate of fires in low- and mid-rise structures throughout the country is raising questions and concerns about the safety of wood-built buildings. It's clear that codes and inspections are failing to keep residents and communities safe. It's time for builders, contractors, developers, first responders and residents to come together to create new solutions that embrace non-combustible materials like steel and concrete.



Advocate: New Jersey | Philadelphia | Los Angeles

CALLING FOR A CONCRETE CHANGE

NJ residents speak out on building code safety in the wake of the Edgewater Apartment Fire.

In 2015, a building fire in Edgewater, NJ destroyed 240 apartment complex units and left more than 1,000 people displaced. Building code standards in New Jersey have rightfully come into question—and there is pending legislation that will allow for more stringent construction codes for increased fire safety. We need legislators to understand how important this issue is—not just for the community, but also to New Jersey residents who are calling for a renewed focus on safety.



93% support legislation that would require all buildings three stories high have concrete and steel frames for greater safety and fire resistance.

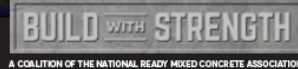
87% support banning light frame (like wood) in multifamily dwellings in densely populated areas to save lives in the event of a fire.



87% believe in legislation that would limit wood-frame construction to three stories and 20,000 square feet per floor is an important for building safety.

97% feel that fire resistance should be an important consideration in residential building construction.

If you're not building with concrete, you're playing with fire. Find out how you can stand up for safer building codes at BuildWithStrength.com.



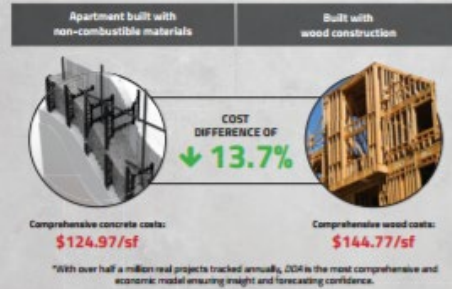
FIRE SAFETY DOESN'T HAVE TO COME AT A PRICE FOR PHILADELPHIA COMMUNITIES.

Two analyses show costs of using non-combustible building materials either on par or less than wood.

Using non-combustible materials has been proven to save lives. But too many communities have been relying on wood construction because they believe it saves money for multifamily buildings. Analyses from Dodge Data & Analytics (DDA) and RS Means highlight the affordability of non-combustible construction in Philadelphia is virtually the same as building with wood. The results mean local construction and developers thrive, while residents and businesses stay protected.

Analysis #1: HISTORICAL COSTS

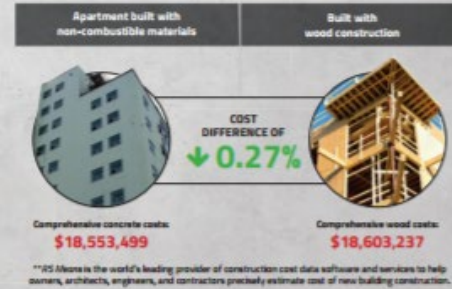
A comprehensive analysis using DDA data for 1-7 story buildings built in Philadelphia from 2013-2016 (representing 314 projects). The takeaway? Non-combustible buildings (concrete and masonry) cost 13.7% less to build than combustible (wood) buildings.



**With over half a million real projects tracked annually, DDA is the most comprehensive and economic model ensuring insight and forecasting confidence.

Analysis #2: ESTIMATED COSTS

A comprehensive cost estimate using RS Means for a typical four-story, 100,000 square-foot apartment building located in Philadelphia. The building consists of 92 apartments, 60 one-bedroom apartments and 32 two-bedroom apartments. The analysis indicated that the costs for non-combustible construction (concrete) are less than combustible (wood) construction.



**RS Means is the world's leading provider of construction cost data software and services to help owners, architects, engineers, and contractors precisely estimate cost of new building construction.

We can afford to put the safety of Philadelphia residents first. Pass a citywide ordinance to build with non-combustible materials. Learn more by visiting BuildWithStrength.com.



LOS ANGELES VOTERS ARE CLEAR ABOUT THEIR PRIORITIES FOR LOCAL LEADERS

Los Angeles voters want local leaders to focus on "ensuring buildings are built safely to withstand natural disasters like earthquakes, a fire or flooding" more than any other issue (95% important).



OVER NINE-IN-TEN VOTERS (91%) support a proposal to improve the fire resistance of buildings and eliminate light-framed, combustible construction.

Los Angeles voters also prioritize "making public schools safer" and "cleaning up the environment."

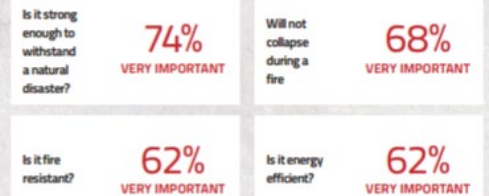
ORDINANCE IS SUPPORTED BECAUSE LA VOTERS WANT:



LOS ANGELES VOTERS ARE CLEAR IN THE MOST IMPORTANT CONSTRUCTION MATERIAL THEY WANT TO BE USED IN NEW BUILDINGS IS SAFEST.

59% of voters agree with the statement "Concrete buildings are just safer during a catastrophe, be it a fire, earthquake, or flood; the building and the people inside will be safer."

THE MOST IMPORTANT FACTORS FOR APARTMENT BUILDINGS, OFFICE BUILDINGS AND SCHOOLS IN THE AREA ARE:



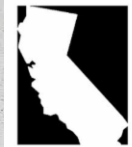
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Our Coalition Partners

KOLTIKVAH

THE ROW LA
THE CHURCH WITHOUT WALLS



CALIFORNIA BLACK CHAMBER OF COMMERCE
Dedicated To Economic Empowerment



Los Angeles
Urban League



Promote

CONTINUING EDUCATION

INSULATING CONCRETE FORMS FOR MULTIFAMILY RESIDENTIAL CONSTRUCTION

Presented by



LEARNING OBJECTIVES

Upon completion of this course the student will be able to:

1. Understand the basic design criteria and construction elements of concrete buildings built with Insulating Concrete Forms (ICFs) for multifamily residential projects.
2. Demonstrate the economic benefits of building multifamily projects with ICFs.
3. Recognize the energy efficiency characteristics of ICF for multifamily construction.
4. Understand the contribution concrete makes to a building's resilience to fire, flood, wind and earthquakes.
5. Identify ways that ICF concrete construction can contribute efficiency to the onsite construction phase of the project and to long-term efficiencies during the operational phase.

CONTINUING EDUCATION

AIA CREDIT: 1 LU/HSW
AIA COURSE NUMBER: A85R20171

Use the learning objectives above to focus your study as you read this article. To earn credit and obtain a certificate of completion, visit <http://gohomeb2b1.com/courses/> and complete the quiz for free as you read this article. If you are new to Hanley Wood University, create a free learner account, returning users log in as usual.



Apartment building built using Insulating Concrete Forms (ICFs). Photo courtesy of HANLEY

By Lionel Lemay, PE, SE, LEED AP, Senior Vice President of Structures and Sustainability, National Ready Mixed Concrete Association
Tien Peng, Assoc. AIA, LEED AP, PMP, Vice President, Sustainability, Codes and Standards, National Ready Mixed Concrete Association

INTRODUCTION TO INSULATING CONCRETE FORMS

Insulating Concrete Forms, or ICFs for short, combine two well-established building products, reinforced concrete for strength and durability and expanded polystyrene (EPS) insulation for energy efficiency. ICF walls are made up of two layers of rigid insulation held together with ties to form ICF form units with a cavity in the center. The ICF form units are stacked in the shape of the wall, reinforcing steel is added into the form cavity and then concrete is placed into the form. The result

is a reinforced concrete wall with a layer of insulation on each side. What makes ICFs different than traditional concrete construction is that the forms remain in place after the concrete is cured to provide thermal insulation. The combination of reinforced concrete and insulation provides an ideal load bearing wall, thermal envelope, fire barrier and sound barrier.

In addition to ICF walls there are also ICF floor and roof systems. The concept is similar in that the ICF form is made with rigid insulation to function as a one-sided form at the bottom surface. The forms are installed to span

between concrete walls, reinforcing steel is placed and then concrete is placed over the forms. The result is a reinforced concrete floor or roof with rigid insulation on the bottom.

ICF wall systems have been used for building applications ranging from single story buildings to 20+ story high-rise buildings and everything in between. There are examples of ICF buildings all over the U.S. and Canada including single-family residential, multifamily residential, hotels, dormitories, assisted living facilities, offices, healthcare facilities, manufacturing and warehouse buildings. Schools built with ICFs

Photo courtesy of NUDURA

AIA-CES: 1 HSW LU (1 Hour) | Course: ICF-101.1



INSULATING CONCRETE FORMS FOR MULTIFAMILY RESIDENTIAL CONSTRUCTION

To arrange for a course at your office contact: Brett Ruffing, BRuffing@nrmca.org or (240) 485-1138.

COURSE DESCRIPTION

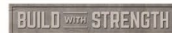
This presentation provides guidance for architects, engineers and builders on how to design and build high performance reinforced concrete multifamily residential buildings using Insulating Concrete Forms (ICFs). Combining the strength and durability of reinforced concrete with the versatility of highly engineered rigid insulation, ICFs provide ideal solutions for apartments, condos, hotels, dormitories and assisted living facilities. ICFs offer fire resistance and noise reduction qualities, important features when designing multifamily residential buildings. They are also remarkably cost effective as the thermal properties of ICFs can offer building owners significant energy savings over the long term. The presentation will also provide guidance on how to minimize the cost of ICF concrete construction to take full advantage of these benefits, resulting in investments that are secure and generate long-term value to building owners.

WHO SHOULD ATTEND:

- Architects
- Engineers
- Contractors
- Developers
- Building Owners

LEARNING OBJECTIVES:

- Understand the basic design criteria and construction elements of concrete buildings built with Insulating Concrete Forms (ICFs) for multifamily residential projects
- Demonstrate the economic benefits of building multifamily projects with ICFs
- Recognize the energy efficiency characteristics of ICF for multifamily construction
- Understand the contribution concrete makes to a building's resilience to natural disasters, including fire, flood, wind and earthquakes



Learn more about this event: BuildWithStrength.com



MULTI-FAMILY EXECUTIVE ROUND TABLE AND SITE TOUR EVENT

May 3, 2017 8:00 AM - 4:00 PM

Roundtable Events: A Circle of Success

Recent Successes as a result of Roundtable and Site Tour Events

- Mississippi \$53 million worth of projects
- Utah converted 4 projects in Utah
- Chaney Enterprises converts 3 Microtels
- Michigan converts multi-family developer to concrete



Convert



IN **2016**,
BWS BEGAN WITH
A CONVERSION
RATE OF

1/6



IN **2018**,
BWS IMPROVED TO
A CONVERSION
RATE OF

1/4



IN **2019**,
BWS IMPROVED
FURTHER TO A
CONVERSION
RATE OF

1/3

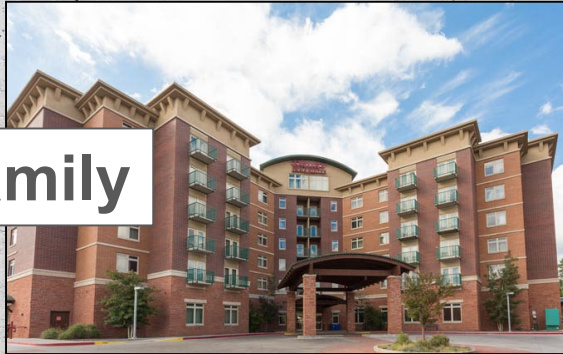


200

**Projects
Converted**

Project Types (these are all concrete)

Multi-family



Commercial



Schools



The Ask

Do you have a project in early design stage we could do a cost comparison on?



Design Recommendations: What's Inside?



Recommendations for:

Tar Heel Development



Tar Heel Village, Charlotte, NC

Prepared by:
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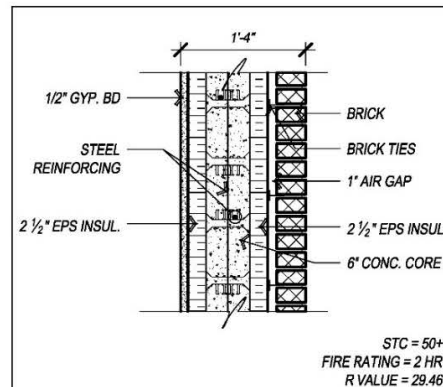
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Wood Frame Construction Cost

\$19,255,832

Concrete Construction Cost

\$19,229,089



5 ICF Exterior Wall

NONE

Beach Green North, Rockaway, New York

This 101-unit, 94,000-square-foot apartment building is built in an area devastated by Hurricane Sandy in 2012. The Bluestone Organization selected ICFs for exterior, corridor and demising walls and precast hollow-core floors for disaster resilience and energy efficiency. The building is so energy efficient it is certified by the Passive House institute. ICFs create a solid concrete wall with continuous insulation, resulting in a comfortable and airtight structure that lowers energy bills. The reinforced concrete system results in a structure that's strong, durable and can stand up to fire, floods and wind. This developer builds exclusively with concrete.



Image courtesy of The Bluestone Organization

Walker's Landing, Milwaukee, Wisconsin

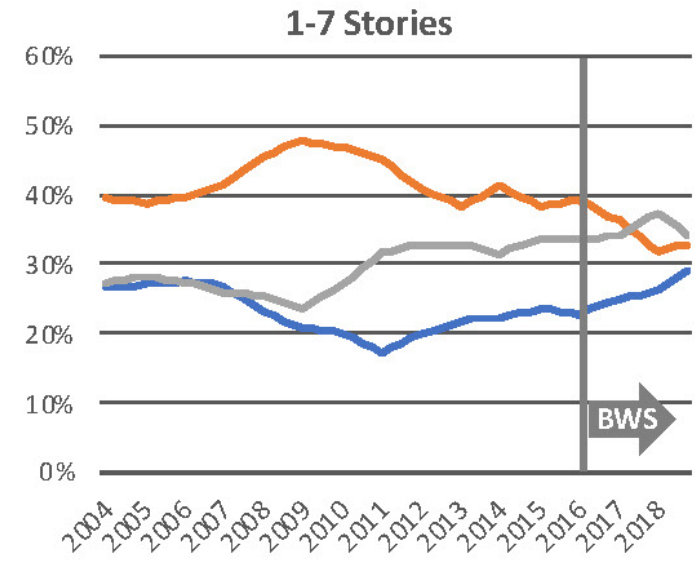
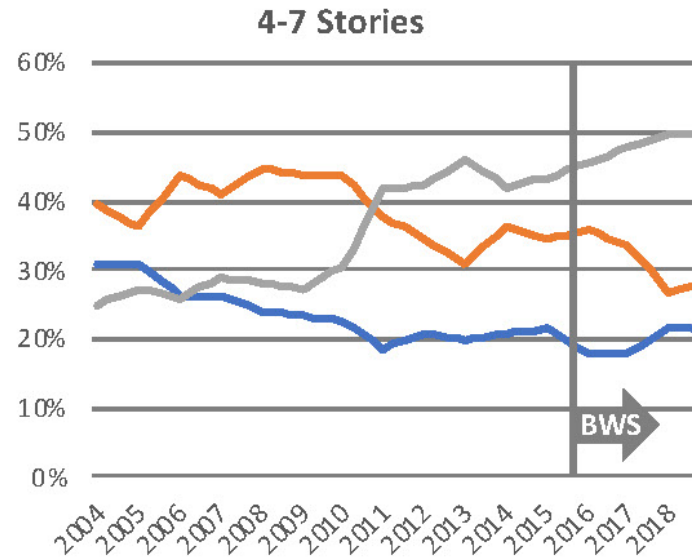
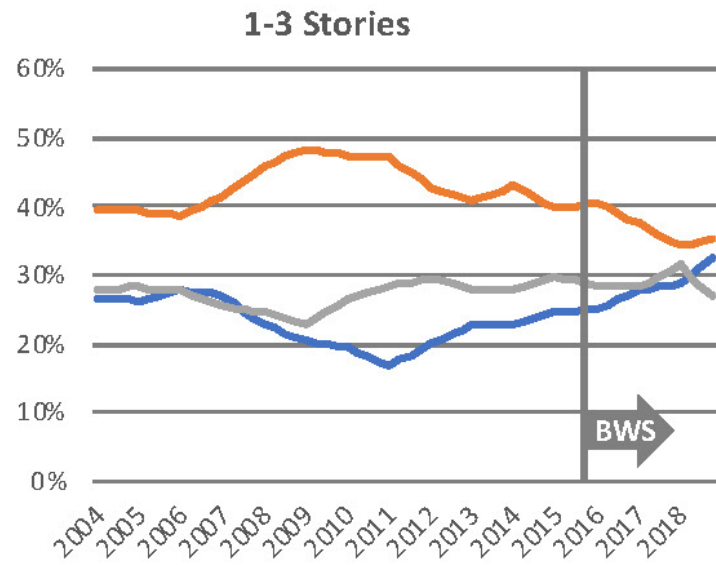
Bedford Development chose ICF walls and precast hollow-core floors for thermal efficiency, fire rating and speed of construction. Walker's Landing has four floors of residential over two floors of parking. The project is located on an infill urban site requiring fire rated exterior walls. The ICF provides more than enough fire rating at a significant cost savings over wood frame. The ICFs are so energy efficient that some tenants have never turned their heat on all winter. The building also has garage heaters that have never been turned on. Bedford Developments used the vertical TF Forming Systems ICF resulting in minimal waste on the job site.



Image courtesy of Bedford Development

Fighting for Concrete's Share: Results

SHARE OF FLOOD AREA



Concrete — Steel — Wood —

ROI

**\$4
MILLION**

has been invested by
NRMCA members annually

**15
MILLION**

of additional cubic yards
of concrete have been
placed in buildings over
the course of the program
as a result of market
share increases

**\$1.7
BILLION**

of additional revenue
has been generated
through Build with
Strength over the course
of the program*



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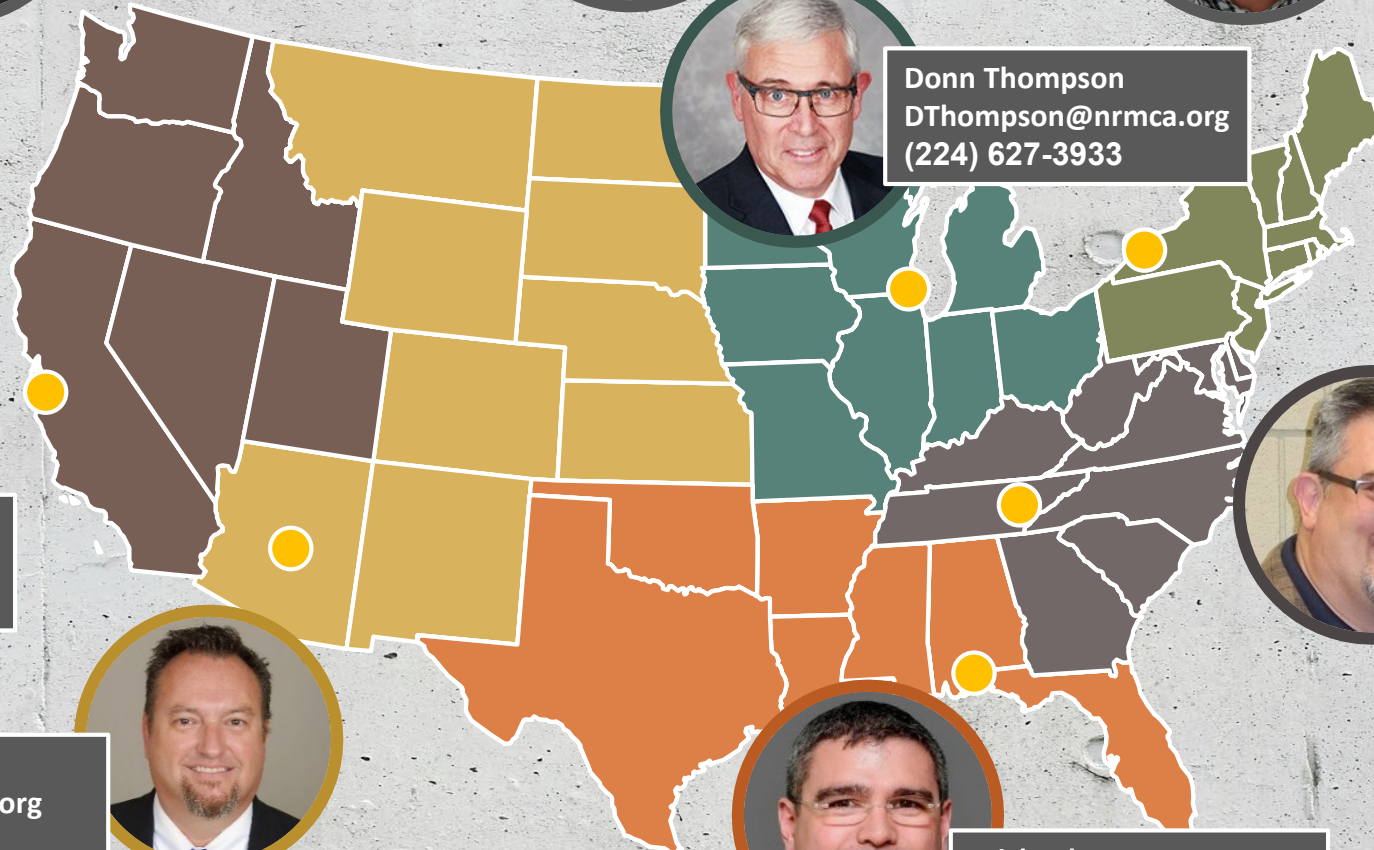
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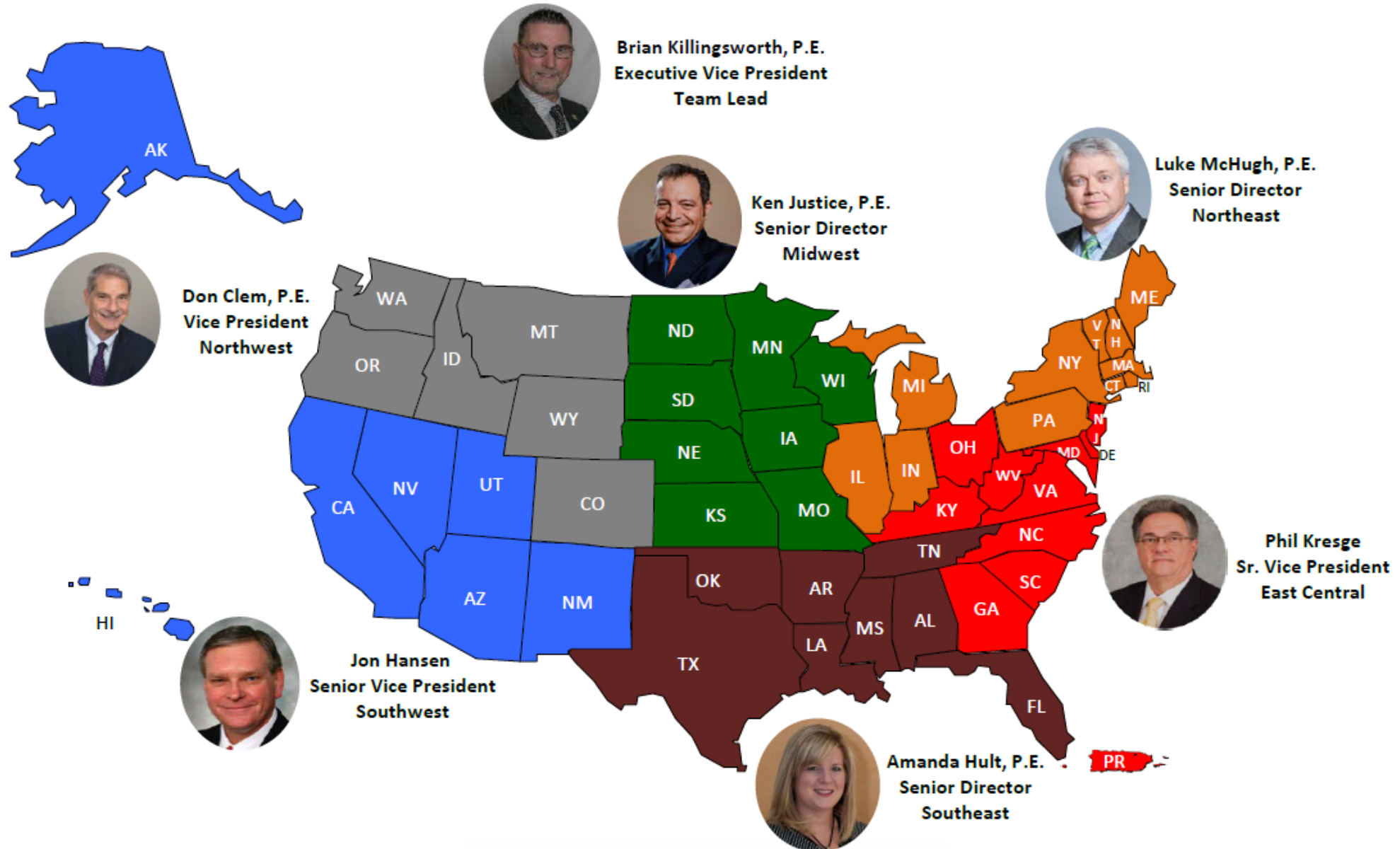


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NRMCA Local Paving Division: Technical and Promotion Personnel - Regional Assignments



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