



# Strategy for Promoting Concrete for Low/Mid-Rise Buildings

*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**

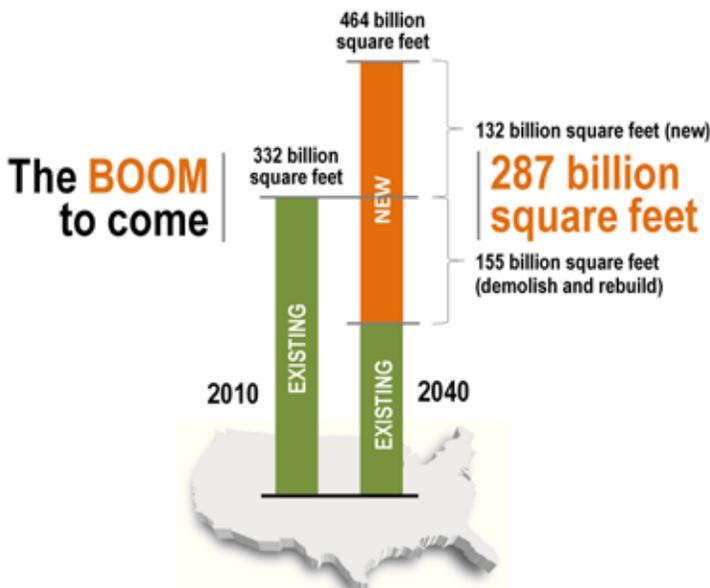
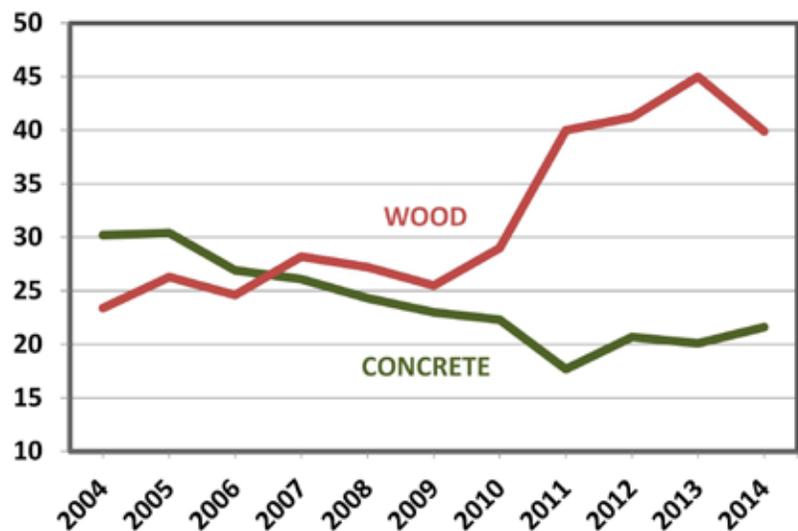
# SITUATIONAL ANALYSIS

Since the inception of the Softwood Lumber Board in 2012, the wood industry has invested at least \$33 million dollars to promote wood applications. As the residential building and non-residential building sectors represent approximately three quarters of all potential for concrete, it is vital that the concrete industry unite to combat this encroachment into traditional concrete markets.

There is significant evidence that the wood industry has been successful in wresting share away from concrete over the last decade in the mid-rise market. According to F.W. Dodge, concrete's share in this segment has deteriorated from 30% in 2004 to 22% in 2014, whereas wood's share has increased from 23% to 40% during that same period.

Economic forecasts for these sectors indicate steady growth over the next 5 years and possibly beyond. According to FMI, multi-family residential construction will grow from \$53 billion put in place in 2014 to \$83 in 2019. The non-residential building market is expected to grow from \$378 billion in 2014 to \$510 billion in 2019. Lodging, office, healthcare, education and manufacturing, all building types that have potential to consume considerable amounts of concrete, are expected to grow over this 5-year period.

**% SHARE OF FLOOR AREA MID-RISE 4-7 STORIES  
(Excludes Parking Decks)**



In the long term, according to Dr. Arthur C. Nelson, Professor of Urban Planning and Real Estate Development at the University of Arizona, the U.S population will continue to grow at a rapid pace, reaching 400 million by 2034 and 500 million by 2050. This means that the U.S. will have significant demand for new buildings. Dr. Nelson predicts the U.S. will build 287 billion square feet of construction between 2010 and 2040, more than doubling the existing building stock, including both new construction and re-construction.

SOURCE: Arthur C. Nelson. Adapted from Architect magazine, November 2006.

# LOW/MID-RISE BUILDINGS PROMOTION PLAN

**GOAL: Increase the Share of Concrete in Low- and Mid-Rise Residential and Non-residential Construction by 50% in 5 years (22% share to 33% share).**

**Low- to mid-rise residential buildings include:**

- multi-family residential buildings
- hotels/motels
- dormitories
- other multi-unit residential structures

**Non-residential construction includes all commercial buildings both privately and publically owned including:**

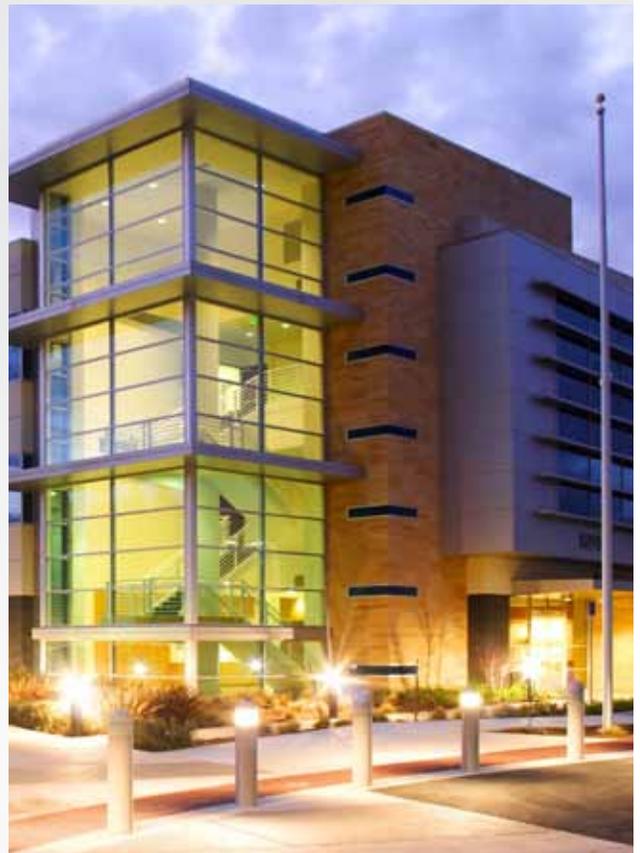
- office buildings
- schools
- retail
- manufacturing
- other non-residential structures

**SUMMARY:**

This five-year plan to stem and regain concrete’s loss of market share in the low/mid-rise buildings market builds on existing strategies that have demonstrated success in other markets. In particular, NRMCA’s Design Assistance Program (DAP) for parking lots and streets has yielded a success rate of over 50%. This plan proposes a DAP for buildings that includes a group of technical professionals with the primary purpose of reaching out to developers, designers and contractors and providing them preliminary designs, cost estimates and operating cost benefits on low/mid-rise building projects with the purpose of influencing projects from wood to concrete. In addition, this plan also proposes to take advantage of the growing interest in green building and resilience. It focuses on promoting ICFs, tilt-up and conventional cast-in place wall and floor systems as the most environmentally friendly, energy efficient and durable building material for residential and non-residential construction.

The plan relies on an unprecedented communications campaign with the objective of changing the hearts and minds of decision makers in favor of concrete. In addition, the communication program will attract decision makers to our new DAP program and education programs.

NRMCA’s continuing work on sustainability, resilience, codes and standards advocacy and legislative advocacy will all enhance and inform this plan as well. Existing activities in support of this plan are included in the Association’s FY16 work program and budget, and expanded activities in these areas are included in this plan.



## STRATEGY 1: COMMUNICATIONS

**\$1.50 million annually**

### GOALS:

- Improve the attitudes and perceptions of concrete products with decision makers (targets and baselines TBD)
- Increase number of decision makers taking advantage of NRMCA design assistance (**30** in **2016**, **150** in **2017**, **300** in **2018** and beyond)
- Attract decision makers to NRMCA education programs (**500** attendees in **2016**, **2000** attendees in **2017**, **5000** attendees in **2018** and beyond)

### KEY COMPONENTS:

- Conduct market research to determine baselines for share of concrete for low/mid-rise construction; then measure annually.
- Conduct interviews/focus groups with decision makers to develop key messages, baseline attitudes and perceptions; then measure periodically.
- Develop and implement comprehensive marketing plan for selected target audiences.
- Advertise in key media outlets.
- Promote building code changes within local jurisdictions that are favorable to concrete construction.
- Exhibit at appropriate trade shows.
- Micro websites.
- White papers, presentations.
- Utilize appropriate social media.
- Promote NRMCA educational opportunities.
- Build alliances with third-party validators such as insurance industry, fire chiefs, renters associations, etc.
- Promote resilience standards.
- Promote NRMCA industry-wide EPDs, RSS, HPDs.
- Promote NRMCA green certifications for LEED projects.
- Utilize MIT CSH research results to demonstrate concrete's benefits for environmental and economic life cycle costs.
- Utilize MIT CSH results to demonstrate concrete's benefits for resilient construction.

#### Glossary of Terms (in order of inclusion)

**DAP** – Design Assistance Program

**MIT CSH** – Massachusetts Institute of Technology Concrete Sustainability Hub

**EPD** – Environmental Product Declaration

**RSS** – Responsible Sourcing Scheme

**HPD** – Health Product Declaration



## STRATEGY 2: DIRECT PROJECT PROMOTION

**\$300,000 FY16 | \$450,000 FY17 | \$500,000 FY18 | \$500,000 FY19 | \$500,000 FY20**

### GOALS:

- Convert buildings from wood and steel to concrete (**15** in **2016**, **75** in **2017**, **150** in **2018** and beyond).
- Increase the knowledge of economical concrete building systems with architects, engineers and developers (**500** in **2016**, **2000** in **2017**, **5000** in **2018** and beyond).
- Increase the knowledge of the benefits of concrete building systems with architects, engineers and developers (**500** in **2016**, **2000** in **2017**, **5000** in **2018** and beyond).

### KEY COMPONENTS:

- Provide key decision makers with personal consultative services.
- Provide design assistance for concrete wall and floor systems.
- Develop feasibility and cost study for concrete low/mid-rise construction compared to wood construction.
- Develop and deliver education on the economical design and construction of concrete systems.
- Develop and deliver education on the benefits of concrete building systems.

## STRATEGY 3: ADVOCACY

**\$250,000 FY16 | \$350,000 FY17 | \$350,000 FY18 | \$350,000 FY19 | \$350,000 FY20**

### GOALS:

- Successfully adopt building code changes that support concrete construction at the state and local level (**2** states per year, **10** states over **5** years).
- Successfully adopt resilient design and construction standards and legislation at the state and local level (**2** states per year, **10** states over **5** years).
- Ensure wood construction does not make gains in building codes and standards with regard to fire and resilience at the state and local level (as required).
- Accelerate NRMCA members position to take advantage of the green building movement through life cycle assessment and sustainability certifications (**150** companies participating in IW EPD by **2020**, **50** companies with product specific EPDs by **2020**). Have LEED and other green building programs adopt NRMCA green building certifications for EPDs, Responsible Sourcing and Material Ingredient Disclosure. (EPDs by **2017**, Responsible Sourcing and Material Ingredient Disclosure by **2018**)
- Pass federal resilience tax credit legislation (in **2016**).
- Pass state resilience insurance rate reduction legislation (**5** states by **2020**).
- Pass limits on height of wood frame construction at the state and local level in order to reduce risk of fire (**5** jurisdictions by **2020**).

*NOTE: Resources outlined represent expanded activities in support of the LMR plan in already existing projects accounted for in the FY16 annual operating budget.*

## KEY COMPONENTS:

- Promote concrete as part of resilience standards, urban heat island reduction, stormwater management solution in state and local jurisdictions.
- Engage building code consultant to assist with expert testimony at the national, state and local level.
- Develop a voluntary resilient design standard and/or certification for buildings.
- Work with a national code development body to develop a new resilience standard for buildings that could be adopted by national model codes, state and local jurisdictions.
- Improve cost and efficiency of NRMCA green building certifications.
- Achieve ANSI certification for NRMCA green building certification programs.

## ADDITIONAL HUMAN RESOURCES:

**\$1.50 million FY16 | \$1.60 million FY17 | \$2.00 million FY18 | \$2.00 million FY19 | \$2.00 million FY20**

In order to fully implement this plan, NRMCA anticipates the need to add significant human resources, primarily for direct project promotion:

- 1 communications professional (FY16)
- 1 advocacy professional (FY16)
- 7 additional promotion professionals (3 in FY16, 2 in FY17, 2 in FY18)
- 1 sustainability professional (FY16)

## FINANCIAL RESOURCES SUMMARY

FISCAL YEAR	COMMUNICATIONS	NEW PROGRAM COST	ADDITIONAL SUPPORT PROGRAM COST*	HUMAN RESOURCES**	TOTAL
FY16	\$1.50 million	\$300,000	\$250,000	\$1.50 million	\$3.55 million
FY17	\$1.50 million	\$450,000	\$350,000	\$1.60 million	\$3.90 million
FY18	\$1.50 million	\$500,000	\$350,000	\$2.00 million	\$4.35 million
FY19	\$1.50 million	\$500,000	\$350,000	\$2.00 million	\$4.35 million
FY20	\$1.50 million	\$500,000	\$350,000	\$2.00 million	\$4.35 million
<b>TOTAL</b>	<b>\$7.50 million</b>	<b>\$2.25 million</b>	<b>\$1.65 million</b>	<b>\$9.10 million</b>	<b>\$20.50 million</b>

*\*NOTE: Resources outlined represent expanded activities in support of the LMR plan in already existing projects accounted for in the FY16 annual operating budget.*

*\*\*NOTE: While the ideal would be to hire for all six positions noted for inclusion in FY16, these positions will take time to fill as we search for the most qualified individuals. Therefore, it is most likely that this estimate will be prorated as we fill positions throughout the year.*





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