



National Institute of
BUILDING SCIENCES

Task Group on
Building Rating and Certification

Report on Building Rating and Certification in the U.S. Building Community



Report on Building Rating and Certification in the U.S. Building Community

National Institute of Building Sciences
Task Group on Building Rating and Certification

September 2009

INTRODUCTION

On September 25, 2008, the Board of Directors of the National Institute of Building Sciences appointed a Task Group to review the current systems in use across the United States for rating and certifying building performance and accrediting individual expertise. The Task Group was charged by the Board to seek input on these issues from a broad range of participants in the building sector as well as the developers and managers of these systems. Following receipt of such input, the Task Group was directed to develop recommendations for possible action by the Institute to be considered by the Board at its September 2009 meeting.

The Task Group was not restricted by the Board's charge. Rather, its recommendations could be to continue monitoring of these systems to better provide guidance to policy makers, regulatory agencies, owners / lessors of buildings, design professionals and system developers in the building community. Recommendations could address the ongoing development, implementation and evaluation of building rating / certification or individual accreditation systems, inform the adoption and implementation of such programs by jurisdictions; and coordinate these systems with state licensing / regulatory agencies.

The Task Group identified more than 20 building rating / certification / accreditation systems being promoted in the United States. These systems address a number of diverse issues including energy and water conservation, sustainable design, security, commissioning, high performance buildings, accessibility, building information modeling (BIM), lighting, healthcare design, laboratory design, "green", school design, project management and other building related areas.

INTERVIEWS

In fulfilling its charge, the Task Group interviewed representatives from the following organizations throughout 2009 to gather input from a broad range of building sector participants:

- American Institute of Architects (AIA),
- Associated General Contractors of America (AGC),
- American National Standards Institute (ANSI),
- American Society of Civil Engineers (ASCE),
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE),
- Building Owners and Managers Association (BOMA),
- Construction Specifications Institute (CSI),
- Green Buildings Initiative (GBI),
- International Code Council (ICC),
- National Association of Home Builders (NAHB),
- National Council of Architectural Registration Boards (NCARB),
- National Fire Protection Association (NFPA),

U.S. Environmental Protection Agency (EPA / EnergyStar),
U.S. Green Building Council (USGBC), and
Victor O. Schinnerer & Co. (VOSCO).

The Task Group discussed the following issues with these representatives:

The creation, development, administration and updating of building rating systems, certification programs and individual credential systems.

The proliferation of building rating systems, certification programs and individual accreditation systems.

Actual performance, results or evaluations achieved through application of building rating / certification systems.

Owner, policy maker and / or public perceptions of building performance or impacts resulting from the application of building rating / certification systems.

Owner, policy maker and / or public perceptions of competence resulting from successful completion of individual credential programs.

Perceived or actual changes in designer and / or contractor liability risk resulting from the application of building rating / certification systems or individual credentialing programs.

Ramifications of individual credentialing programs relative to potential public confusion concerning the definition of state professional registration / licensing regulations.

Implications of adopting building rating / certification systems authored as voluntary systems to be mandatory regulations.

Issues raised when an individual building rating / certification systems requirements, or those of competing systems, appear to require different responses for similar conditions.

Overall industry consequences of using building rating / certification systems or individual credentialing programs.

As a part of its initial work, the Task Group developed the following definitions for use in its interviews and this report:

Labeling is a term to identify that a building, building system, component, element or design feature conforms to a predetermined set of requirements or performance levels.

Rating is an evaluation of a building, building system, component, element or design feature on a (generally proprietary) scale based on a predetermined set of requirements or performance levels.

Certification is a formal acknowledgement that an individual has demonstrated knowledge, skills or expertise as defined by predetermined systems of standards. Certification can also be a formal process of evaluation and determination that a building meets a particular set of design or performance requirements.

Accreditation is a formal process by which an individual is determined to have demonstrated knowledge, skills or expertise as defined by predetermined systems of standards.

CONCLUSIONS

The following conclusions were drawn by the Task Group as a result of the interview sessions:

Endorsement of Building Rating and Certification

- Many organizations and members of the building community have chosen to remain neutral rather than endorse building rating / certification programs or individual accreditation programs outside their ownership. This widespread neutrality has directly and / or indirectly facilitated and encouraged the proliferation of these systems or programs. Many organizations have chosen to collaborate with like-minded organizations to advance common issues and have thus contributed to the proliferation of often-inconsistent rating systems and programs.

Understanding Building Rating and Certification Systems or Individual Accreditation Programs

- There is very limited data that correlates verifiable improvements in building performance with building rating / certification systems requirements. Many people view the few data sets that do exist as controversial in terms of methodologies and conclusions drawn from them.
- There is limited building operations data that can be used to benchmark actual performance against specific building rating / certification systems. The data that is collected is not done consistently nor to an agreed-upon standard or format.

- Elected officials and policy makers at the federal, state and local levels only rarely understand the objectives, development, intended uses, opportunities and limitations of rating / certification programs for buildings and accreditation programs for individuals.
- At an increasing rate, state and local governments and their code / regulatory agencies are adopting building rating / certification systems, intended as voluntary systems, to be their code or regulatory requirements , often without fully understanding their benefits, tradeoffs and costs.
- There is a growing concern that building rating / certification systems may have a negative impact on the building design / construction community. In particular, after a building is completed, the unmet expectations of policy makers, building owners and the public, when presented with the actual results of the application of building rating / certification systems, is of serious concern and causing rising apprehension in the building community.
- There are significant misperceptions and misguided expectations amongst policy makers, the public and building owners regarding building rating / certification programs and individual accreditation programs.
- Policy makers, building owners and the public do not clearly understand the distinctions between building design decisions, construction and actual building operational performance.
- There is significant discomfort in the building community about building rating / certification systems, intended for voluntary use, being adopted for unintended, mandatory uses, such as building codes, building standards or similar regulatory requirements.
- Many of the building rating / certification systems and individual accreditation systems appear to place the goal of generating revenue for their development organization as a goal equal to the organization's commitment to knowledge development and advocacy around its issue.
- Many of the building rating / certification systems and individual accreditation systems appear to certify expertise in applying the program more than improving the actual building's performance.

Professional Accreditation

- There is interest in developing individual accreditation programs that require state professional licensing requirements for education, examination and experience to substantiate expertise in high performance design.

- There is growing concern that individual accreditation programs are not based on rigorous criteria and testing that validate competence.
- Several sectors of the design and building community are attempting to use individual accreditation programs for competitive differentiation in the marketplace.

Owner Expectations and Professional Liability

- There is growing concern that design and contractor liability risk may rise if performance expectations are not realized in completed projects.
- Building rating / certification systems and individual accreditation programs are beginning to impact the professional standard of care recognized by law and the building community. Such systems and programs may cause design professionals, owners, managers and facilities personnel to be held to higher degrees of expertise and performance.
- The vast majority of insurance claims involve misrepresentation, miscommunication and misunderstood expectations between owners and design and construction professionals.
- There are growing concerns that the implied guarantee of building energy performance emanating from building rating / certification / labeling systems may confuse or mislead policy makers and the public.
- There are no common set of metrics or consistent methodologies to determine building performance levels relative to achieving targets / requirements defined by building rating / certification systems.
- There is a significant lack of understanding or knowledge of design intent as it relates to the day-to-day operations of a particular building in the building owner and operator communities. The implications of this lack of understanding / knowledge in achieving building performance goals / targets established by building rating / certification systems have not been determined.
- Achieving conformance with a building rating or certification when validated by an independent, third-party evaluator is moving the building community into an area of whole building prequalification reserved in the past for individual building products, components and systems.

- Compliance with building certification and reliance on accreditation diminishes the authority and accountability of the licensed design professional.

RECOMMENDATIONS

From these conclusions, the Task Group recommends that the Institute undertake the following actions in fulfilling its mandate to the building community and the nation:

Encourage policy makers and sponsoring organizations to recognize only those accreditation or certification programs that require individuals to have a state licensure as an architect, engineer or similarly licensed professional if required, for the actual building design and construction.

Encourage sponsoring organizations to require submittal of actual validated building performance data demonstrating conformance with a building rating / certification system's requirements, and that such data be a requirement prior to receiving any building rating or certification.

Encourage the building community to support one comprehensive, consensus-based building rating and certification or labeling program to reduce the complexities and contradictions that presently exist in the building community and the nation.

Develop a white paper using readily understood language to describe building rating / certification / labeling and individual accreditation programs for distribution to policy makers, building owners, regulators and the public. The white paper should describe the opportunities and limitations of such programs in order to educate those adopting or utilizing such systems or programs as to their objectives and anticipated results.

Develop a white paper describing the opportunities and limitations of the adoption of voluntary building rating / certification systems into building codes or other governmental regulations. This white paper should incorporate guidelines and a suggested process regulatory bodies could use as a roadmap if they choose to enhance the model codes / regulations or their local codes / regulations by incorporating provisions of the building rating / certification systems.

Create a Board-led Task Group, which includes representatives of the Institute's councils and other associations, to define standard building performance metrics. A specific work plan and communication plan to promote the metrics should be presented to the Board at its spring 2010 meeting.

Respectfully submitted by the members of the Task Group and approved by the Institute Board of Directors on September 24, 2009.

R.K. Stewart, FAIA, NCARB, LEED AP® Perkins & Will San Francisco, CA	representing the architectural community
Mortimer M. Marshall, Jr., FAIA, FCSI The Marshall Group Reston, VA	representing the architectural community
William J. Coad, PE, FASHRE Coad Engineering Enterprises St. Louis, MO	representing the mechanical engineering community
Dwight (Sonny) M. Richardson, Jr. Richardson Home Builders, Inc. Tuscaloosa, AL	representing the homebuilding community
Edward Soenke, FCSI, AIA, CCS The Design Partnership, Architects West Des Moines, IA	representing the specifications community
Susan Klawans Gilbane Building Company Providence, RI	representing the contractor community
James T. Ryan, CBO City of Overland Park, KS	representing the building official community
Henry Green, Hon. AIA President	Institute Staff
Earle Kennett Vice President	Institute Staff



National Institute of
BUILDING SCIENCES

1090 Vermont Avenue, NW, Suite 700
Washington, DC 20005-4905

(202) 289-7800 phone
(202) 289-1092 fax

www.nibs.org