

### National Green Building Standard – ICC 700

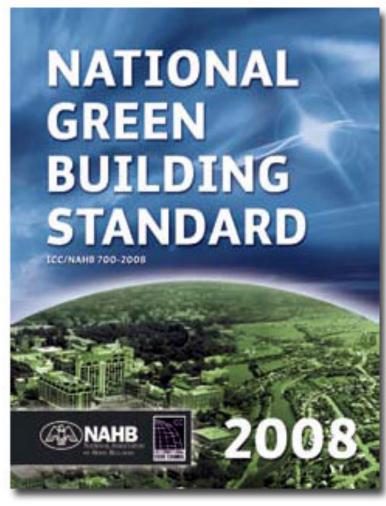
NIST Workshop
Strategies to Get to Net Zero
Energy Homes

September 15, 2011



# National Green Building Standard ICC 700

- Approved by American National Institute of Standards (ANSI) January 2009
- Provides rating system of a home's environmental impact
- Sets four performance levels for green homes
- Government entities look to ANSI standards to set industry benchmarks
- Designed to be voluntary, above-code program





#### Hallmarks of ANSI Process

- Consensus by balance of stakeholders
- Broad-based public review and comment
- Consideration of comments submitted
- Incorporation of approved changes into standard
- Right to appeal for anyone who believes due process was not respected





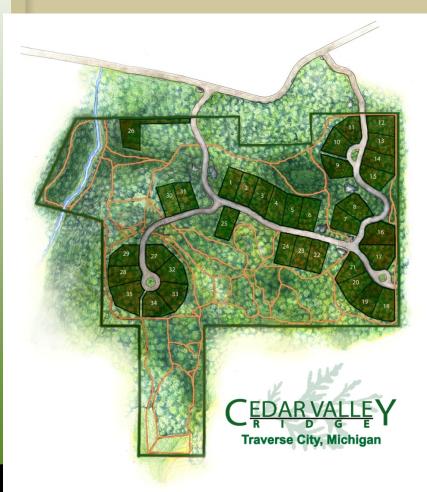


## Scope of NGBS

- Communities
- Residential Buildings
  - Single-Family & Multi-family
    - > New Construction
    - > Additions & Renovations & Remodel



## Land Development







## Land Development

- One Four Stars
- Point-based performance criteria
- Measures for planning, design, and construction
- Mixed-use development
- Urban, suburban, rural
- Land Points for home compliance



### Single-Family









### Single-Family





# Habitat for Humanity Homes





## Multifamily





## Green Remodel MF





### **Performance Levels**

| Green Building Categories |            |  | Performance Level Points (1) (2) |        |      |         |
|---------------------------|------------|--|----------------------------------|--------|------|---------|
|                           |            |  | BRONZE                           | SILVER | GOLD | EMERALD |
| 1.                        | Chapter 5  | Lot Design, Preparation, and Development             | 39                               | 66     | 93   | 119     |
| 2.                        | Chapter 6  | Resource Efficiency                                  | 45                               | 79     | 113  | 146     |
| 3.                        | Chapter 7  | Energy Efficiency                                    | 30                               | 60     | 100  | 120     |
| 4.                        | Chapter 8  | Water Efficiency                                     | 14                               | 26     | 41   | 60      |
| 5.                        | Chapter 9  | Indoor Environmental Quality                         | 36                               | 65     | 100  | 140     |
| 6.                        | Chapter 10 | Operation, Maintenance, and Building Owner Education | 8                                | 10     | 11   | 12      |
| 7.                        |            | Additional Points from any category                  | 50                               | 100    | 100  | 100     |
|                           |            | Total Points:  | 222                              | 406    | 558  | 697     |



#### ToolBase.org

- Zero Energy Homes: A Brief Primer
   A presentation describing the components of a Zero Energy Home.
- ZEH Impact Study
   The Potential Impact of Zero Energy Homes demonstrates the significant long-term energy and environmental benefits of ZEH and encourages more builders to investigate the idea for their customers.
- Seven Steps to a ZEH





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