### **DOE Zero Energy Ready Home**



Energy Efficiency & Renewable Energy



Zero Energy Ready Homes Leading Builders

**Rick Wertheim** SVP Housing United Way of Long Island

### Introduction



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# **Leading Builders Series**



## United Way of Long Island Housing Development Corp.

Serving Long Island, New York



**United Way of Long Island** 

Suburban population of 3 Million people

- Builders / Developers of:
  - Special Needs homes
  - Special Purpose homes
  - Affordable Homes







## **Affordable Housing?**

### What EXACTLY is Affordable Housing?

### Is it Possible in High Cost Areas?



### The Problem

250% higher



| The Numbers:                 | Long Island Income, Home Value, Education |                                  |                         |                                |                               |            |
|------------------------------|---|----------------------------------|-------------------------|--------------------------------|-------------------------------|------------|
| (national<br>comparison)     |   | MEDIAN                           |                         | % OF HOMES                     | % OF ADULTS WITH <sup>5</sup> |            |
|                              |   | HOUSEHOLD<br>INCOME <sup>3</sup> | HOME VALUE <sup>4</sup> | OWNER<br>OCCUPIED <sup>4</sup> | COLLEGE<br>DEGREES            | HS DEGREES |
| <u>Income:</u><br>75% higher | Long Island                               | \$88,123                         | \$463,600               | 82.7                           | 35.6                          | 89.3       |
|                              | Nassau                                    | \$93,696                         | \$494,000               | 83.2                           | 40.5                          | 89.5       |
|                              | Suffolk                                   | \$85,196                         | \$430,600               | 82.2                           | 31.3                          | 89.1       |
|                              | New York State                            | \$54,659                         | \$310,000               | 55.4                           | 31.8                          | 84.2       |
|                              | USA                                       | \$50,221                         | \$191,900               | 66.4                           | 27.5                          | 84.6       |
| Home Cost:                   |   |                                  |                         |                                |                               |            |

#### Hide

1. Source: US Bureau of the Census, decennial Census of Population.

 Source: U.S. Census Bureau, Census of Population; land area data from the U.S. Census Bureau's geographic database (TIGER® database) for Census 2000.

3. Source: U.S. Bureau of the Census, American Community Survey, 2009 (1-year estimates)



## **Affordable Housing**

Wikipedia: "housing which is deemed affordable to those with a median household income as rated by the national government or a local government by a recognized housing affordability index."

**HUD:** "housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities."





## **Formula for Affordability**

**Produce a Home that incorporates :** 

- 1. Good Design practice (it starts w the plans)
- 2. Superior Energy Efficiency
- 3. High Efficiency "right sized" mechanicals
- 4. Highly trained Workforce (invest in your staff)
- 5. Don't skimp on Quality!

**Solution** 

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## Recipe

- □ LEED for Homes
- Passive House Institute
- **Green Globes**
- Living Building Challenge

## **√U.S. DOE ZERH**

 Building America Solution Center https://basc.pnnl.gov/





Our Marketing Strategy:

Education and Awareness

Our Homes "SELL" Themselves

 We need to have a Housing Lottery to determine lucky recipient / Family



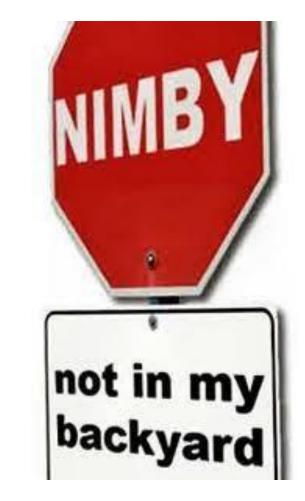


## Remove the *Negative* connotation with Affordable Housing

**Re-Brand Affordable Housing** 

Next Generation Housing for the masses should be:

- Affordable
- Sustainable =



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## Affordable + Sustainable =

# "Attainable Housing"





### Education and Awareness

### Events! Truck Wraps





### **Technical Strategies**



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## Challenges

- Building Department
- Trade reluctance
- Under skilled Workforce
- Cost of High
  Performance equipment
- Design professionals unfamiliar with your product

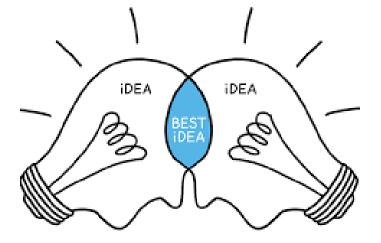




### **Technical Strategies**

## Solutions

- Meet w/ Inspectors
- Involve trades in process
- Utilize Workforce options
- Re-think your cost vs Value analysis w/ equip.
- "Breaking up is hard to do" (Find like minded design professionals)











AFFILIATED NETWORK

Youth Development Programs (nationwide)

- Programs already funded by US Dept. of Labor
- OSHA 10 trained workforce
- Many w/ pre-apprentice vocational training https://www.youthbuild.org/



### Workforce

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## Veteran Programs

- Many regional programs
- "Helmets to Hard Hats"
- "Hard Hat Heroes"
- "VetsBuild"

Many other non-Vet and Youth options available (Tech Schools)





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## Main Takeaway

Attainable Housing

It's NOT first cost
 anymore



• It's Lifecycle Cost!!

Advanced metal skinned SIPS 6" walls 10" roof panels

### For More Information

- Web: <u>http://www.unitedwayli.org/Hou</u> <u>singandGreenBuilding</u>
- Training center

SMARTRIIII D

TRAINING CENTER

ENERGY-EFFICIENCY

E D U C A T I O N EMPOWERING CAREERS

ENERGY

<u>http://www.unitedwayli.org/e3</u>

**RESNET** 

EnergySmart

Builder



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NATIONAL HEALTHY HOMES

the U.S. Department of Housing and Urban Deve

Rick Wertheim SVP Housing & Green Initiatives 631-940-3722 rwertheim@unitedwayli.org

Tour of Zero Link:





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### Thank You!



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#### **Resources:**

www.buildings.energy.gov/zero/

- Take the Tour of Zero
- Become a Partner
- Review ZERH Specs
- Access Tech Training Webinars
- Use the Marketing Toolkit

Contact: zero@newportpartnersllc.com

301-889-0017