

Don White

- Member of ICC's 2012 IECC Code Development Committee
- State of Nevada Energy Code Ambassador
- Officer and board member of the Southern Nevada Chapter of ICC, (ICC's International Chapter of the Year for 2010)
- Member of board of directors of EduCode International and Host of the Green Building and Energy Track
- Chair of Southern Nevada Building Officials Energy Code Review Committee
- Plans Examiner-City of Las Vegas Department of Building and Safety.

The Las Vegas Site- Built Window Story

How we evolved into compliance and
How your organization helped

Jurisdictions and Energy Code Compliance

- Economic environment puts strain on Building Department staffs
- Haphazard enforcement at best
- Newly developed codes go through a “break-in period”
- Training, Understanding and Commitment are key to real adoption

Background-This “New” Energy Code

- Level of ambiguity
 - Those that develop the code understand the intent
 - Sometimes fail to get this conveyed in the code text.
 - Jurisdiction left to interpret new codes as they “understand” them.

1992 MEC

- Took care of envelope compliance
- All buildings being built in southern Nevada could easily comply

2003 IECC

adopted in Las Vegas in 2005

- Sec. 102.5.2 Fenestration product rating, certification and labeling
 - Provided standards for labeling but required manufacturer to provide this information
 - *BUT*--How do jurisdictions deal with SITE BUILT windows?
 - For LV climate zone-relied on default.
 - Very little training—no measurement tools

2006 IECC

- Adopted in 2007 by the valley
- Local gaming industry issues not dealt with
 - Local Code committee concentrated on commercial lighting requirements
 - Held the same course regarding site-built windows

Required COMcheck

- Design professional listed U-factors and SHGC's in the Compliance Report, BUT
 - Plans examiners assumed these numbers were specified in the specifications manual
 - Inspectors assumed Glaziers would provide the specified window and frames
 - No known means to verify



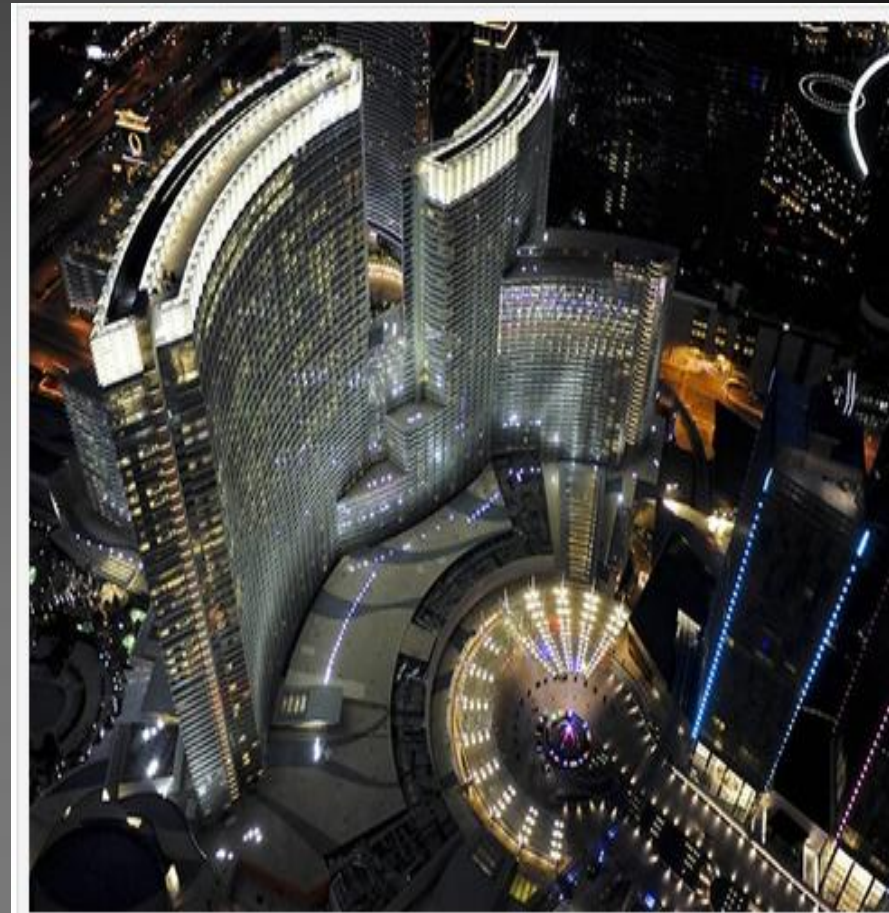
.During our boom period...

Site Built Windows

- Commercial construction during boom
- Strip malls
- Office parks



Mega Resort and Casinos



High Rise Condominiums



Incredible amount of site-built glazing that jurisdictions were not dealing with per the intent of the code.

The Search for answers

- Requests from DOE and NFRC
 - Provided with “convoluted” procedure that our building officials would not consider (AI certification process)
- City of Seattle –discovered building department website and reviewed their approach
- LV Glaziers Association --to discuss compliance
 - PROBLEMS SURFACED

Problems Surface

- Glaziers Association problem
 - “Flip” mentality of developers
 - Underbid by unscrupulous tradesmen
 - Value engineering to finish projects after the bubble popped
- The Allure Tower problem



2009 IECC Code Hearings

- DOE Energy code rep gave me assurances that Site-Built Window ambiguities would be resolved
- AAMA had several proposals- appeared easier to adopt and enforce
- Result—nothing resolved.

Turning Point 2009 Energy Code Review Committee

- Resolve Site-Built window problem
 - Involve industry
 - Glaziers Union
 - Las Vegas Glaziers Association
 - NFRC-Ray McGowan
 - PNNL-Eric Makela
 - “The Apostle” Frank Fisher Arcadia Inc.

Amending ordinance Sec. 303.1.3

- NFRC's CMAST data base on near horizon
- Temporary expanded default tables from the ASHRAE Fundamentals Table 4 and 10
- Expanded tables "sunset" on Dec. 31, 2010
- Added additional subsections 303.1.3.1, *Fenestration rating documentation* and 303.1.3.2 *Construction site rating documentation*
 - Added "temporary" documentation procedure for glaziers using the expanded default tables
 - Subject to Sunset date

Unfounded Worries

- 2009 IECC adopted valley wide in December 2009
 - Rush for Eligibility for State ARRA money
 - Due to controversy over IRC sprinkler requirements, “drop dead” adoption of all 2009 I codes delayed until July 5, 2011
 - Amending ordinance provisions sunset prior to adoption formal adoption of 2009 IECC
 - No one used default tables

CMAST Becomes Available

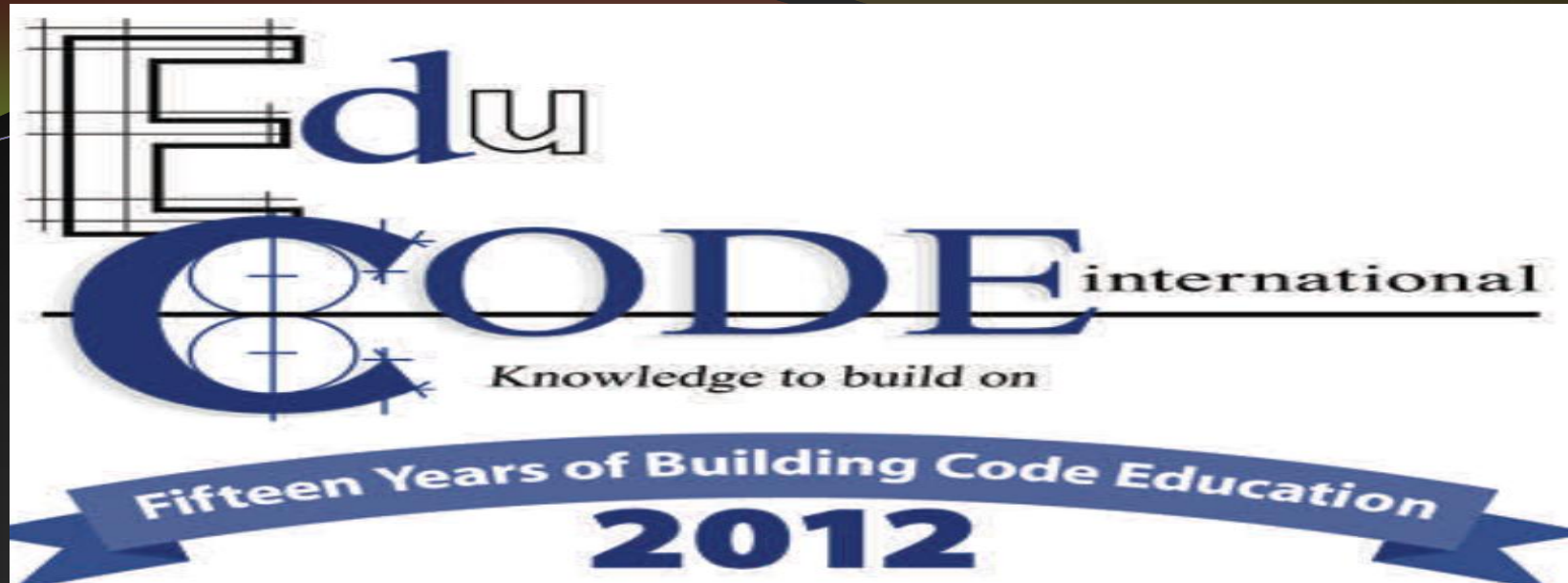
- EduCode 2010, March 2010
- CMA data base and software is unveiled
 - NFRC's John Lewis and Tom Herron took active role in window certification program presentation
 - Cleared way for reasonable site-built window certification process.
 - Area Building Officials support this program



NFRC Support

- EduCode 2011, February 2011
 - NFRC provides increase support for 2009 IECC Codes Classes
 - John Lewis continues hospitality event to promote CMA program
 - John, Tom Herron and Frank Fisher present a code CEU class on IECC fenestration Compliance-70+ code officials attend





State sponsored grant through DOE for IECC Code related Classes

Last year's grant brought in 87 Code Officials from around the state

This year's scholarships expanded to include design professionals and licensed contractors

NFRC to be a corporate partner this year

The Future

NFRC's Role—Spread the word

- CMA Database--continue expanding the CMA program
- Code Refinement-take active role in code development process-refining certification procedures
- Education-play an increased role in window performance education to both industry and code officials
 - Glaziers Associations
 - Design professionals
 - Visit jurisdictions to update and educate
 - Support code conferences with financial and educational support



Thank you !