

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
BUILDING CODES COMMITTEE

January 20, 2016

Maricopa Association of Governments Office  
302 N. 1<sup>st</sup> Ave  
Ironwood Room  
Phoenix, AZ

COMMITTEE MEMBERS

Larry Taylor, Gilbert, Chair

Gregory Arrington, Youngtown, Vice Chair

Dave Zellner, Apache Junction

Brett Harris, Avondale

Phil Marcotte, Buckeye

\*Mike Tibbett, Carefree

#Mike Baxley, Cave Creek

#Ron Boose, Chandler

Mary Dickson, El Mirage

\*Jason Penrod, Florence

\*Jason Field, Fountain Hills

Tom Paradise, Glendale

\*Ed Kulik, Goodyear

\*Chuck Ransom, Litchfield Park

\*VACANT, Maricopa

Tom Ewers, Maricopa County

Steven Hether, Mesa

Bob Lee, Paradise Valley

#Dennis Chase, Peoria

Michael Abegg, Phoenix

\*Michael Williams, Queen Creek

Dustin Schroff for Michael Clack, Scottsdale

Brigham Bennett, Surprise

#Martin Perez, Tempe

Dale Crandell, Tolleson

\*Kevin Bruce, Wickenburg

\*Jackson Moll, Home Builders Association

Sharon Bonesteel, Salt River Project

OTHERS IN ATTENDANCE

Scott Wilken, MAG

Merry Holmgren, MAG

#Fredric Zwerg, Southwest Gas

Judd Jensen, Energy Inspectors

Joel Dickinson, Salt River Project

David Felix, Salt River Project

Scott Scharli, Salt River Project

Josh Vigh, Energy Inspectors

Grant Smedley, Salt River Project

Catherine O'Brien, Salt River Project

Daran Wastchak, DR Wastchak

Jake Hinman, Arizona Multihousing  
Association

\*Those members neither present nor  
represented by proxy.

#Those members participating via  
audioconference

1. Call to Order

Larry Taylor, Chair, called to order the January 20, 2016 meeting of the MAG Building Codes Committee (BCC) at 2:00 p.m.

2. Introductions

Voting members Mike Baxley, Ron Boose, Dennis Chase, and Martin Perez attended via telephone conference call. All members and guests introduced themselves.

3. November 18, 2015 Meeting Minutes

Tom Ewers made a motion to approve the November 18, 2015 minutes. Dale Crandell seconded the motion, and the motion passed unanimously.

4. Call to the Audience

Josh Vigh asked what jurisdictions are planning to adopt the 2015 International Energy Conservation Code (IECC). Representatives from Paradise Valley, Scottsdale, Apache Junction, Peoria, Cave Creek, and Chandler indicated they are planning to adopt that code. Michael Abegg said that Phoenix will not adopt the 2015 IECC, but is planning to adopt about 15 to 20 amendments from the 2015 code into the 2012 code, which they currently use.

5. Comments From the Committee

There were no comments from the committee.

6. SRP Advanced Inverter Project

Sharon Bonesteel introduced the Advanced Inverter Study that Salt River Project (SRP) is planning to start. She said that the goal of the presentation is to introduce the study and find a way to simplify the permit process to install advanced inverters in the homes of their customers with solar arrays. She introduced Catherine O'Brien, who gave an overview of the program. She said that with traditional inverters, a brief outage causes the inverter to shut off completely. This isn't a problem with current solar installed on the system today. However, when more solar is incorporated in the future, she said that these situations with traditional inverters can cause the operating voltage range of the overall electrical grid to vary too much which can cause system instability. She said the study will include around one thousand solar customers using the advanced inverters, to test advanced functions and their effect on the grid. She talked about the three main components with different communication capabilities that will be tested in the study. She said that the reason for this presentation is to discuss what the local governments need for their permitting process to swap out the traditional inverters for the advanced inverters. Sharon Bonesteel talked about the documents that will be included in the permit package.

Tom Paradise asked about a situation in which the solar panel is at capacity and a new circuit is needed. Sharon Bonesteel said that the contractor will do a load calculation, and will either upgrade the panel or, if necessary, the house will not be eligible for the program. She said that they will not overload the panel.

## 7. International Energy Conservation Code

Daran Wastchak gave a presentation on a proposed amendment to the International Energy Conservation Code (IECC). He said the IECC requires that blower door testing find an air leakage that does not exceed 5 air changes per hour in the MAG region's climate zones. He said that this requirement is the same for both single-family and multifamily structures. He talked about the issues with conducting blower door tests on multifamily structures, and why achieving 5 air changes per hour is difficult or unfeasible in those structures. He said that in multifamily buildings, blower doors don't distinguish between outside-to-inside leaks (from the exterior of the building to the units) and inside-to-inside leaks (from unit to unit). He said that the test is only concerned with outside-to-inside leaks. Michael Abegg asked if the test can find the interior leaks. Daran Wastchak said that those interior leaks can be identified and addressed. He said that the energy conservation programs in Canada and Nevada have addressed this issue, with the multifamily standard higher than the single-family standard. He said that the standard in the 2009 IECC was 7 air changes per hour, and he is proposing an amendment for multifamily structures to use that standard.

Steven Hether asked if this proposal has been taken to the International Code Council (ICC). Daran Wastchak said that there is a lag in getting changes adopted into the ICC codes, so in the immediate concern he is proposing this amendment locally. He said that this proposal would cause no change in a Home Energy Rating Score (HERS) score for a multifamily unit because the inside-to-inside leaks have little to no heating or cooling loss. He said the reason is that in this area there aren't big temperature changes from outside to inside, as compared to other climate zones. Michael Abegg commented that the inside-to-inside leak spots should be fire rated, so it's interesting that they are leaking air from one unit to another. He also suggested adding a statement in the justification for the amendment that this proposal would not affect HERS scores. He asked what the proposal would affect. Daran Wastchak said that it would affect very little and would not compromise the air tightness of the exterior wall in any way. He said that this issue is occurring in every jurisdiction in every multifamily building, and he is proposing a reasonable solution to the problem caused by the letter of the code. Daran Wastchak asked how this proposal could get recommended by MAG. Scott Wilken said that the item could be put on the next meeting's agenda for a recommendation by the committee, and it would then go to MAG Management Committee and Regional Council for their approval.

Sharon Bonesteel asked about the idea of inside-to-inside leakage versus outside-to-inside leakage. She said that if air leakage is found between units, it is an indication that the fire blocking between units needs to be addressed. Tom Paradise said that fire blocking products expand in a fire, so there isn't necessarily a fire block issue simply because there is air leakage between units when there is not a fire. He said that the fire blocking doesn't necessarily need to be air tight in order to still be an effective fire block. Sharon Bonesteel pointed out that the example of the Canadian code had a twenty percent increase in allowable air change, but this proposal would have a forty percent increase. Daran Wastchak said that a smaller change is necessary in a climate like Canada's with a larger temperature difference between inside and outside. He said that the climate in the MAG region is more forgiving and allows more flexibility. He also said that the 2009 IECC had 7 air changes per hour as the standard, and he is proposing using that for multifamily buildings. Sharon Bonesteel said that there is a movement at ICC to create a separate multifamily code to address issues unique to multifamily buildings, and that a lot of those issues are energy related. She suggested comparing this proposal's language to the language being discussed as part of the 2018 code changes.

Michael Abegg asked in which jurisdictions this is an issue. Daran Wastchak said that it is an issue in all jurisdictions that are using the 2012 or 2015 IECC. Dave Zellner asked where the proposed value of seven came from. Daran Wastchak said that it is a reasonable number that can be achieved and still provide the energy conservation that is the spirit of the code. Steven Hether said that he understands the builders do not want to pay for five blower door tests for each unit, and that they prefer to shift the cost to the resident. He asked how much more this proposal would cost the resident in energy costs over the long term. He said that the IECC was put into place to reduce energy usage, and that he would like to see this proposal vetted at the national level before adopting it here. Daran Wastchak said that he would not advocate from something that would have an adverse effect on energy usage. He said he can provide the calculations to show the effect. Dennis Chase asked if these inspections are being done at the rough stage. Daran Wastchak said that they are done then, and later, and the contractors are still struggling to meet the current standard. Michael Abegg asked what states on the west coast are doing for this issue. Daran Wastchak said that, other than Nevada, it is being ignored.

#### 8. Legislative Update

Scott Wilken provided an update on legislative activities of interest to the committee. He discussed Senate Bill (SB) 1004, which is a regulatory exemption for garden produce grown in home, school, and community gardens. He discussed SB 1050, which would prevent municipalities from denying the producer of food products from selling those food products on their property. He also discussed House Bill (HB) 2172, which would prevent planned communities from unreasonably withholding approval of a construction project. He said that a possible bill discussed last fall regarding building inspections timeframes will not be submitted, according to the sponsoring senator. He also said that the possible bill regarding detached buildings for home-based businesses has not been submitted. He discussed HB 2107, which would allow municipalities and counties to adopt ordinances regulating “structured sober living homes,” and providing specific items that must be included in such ordinances. He discussed HB 2233 which would allow public buildings to be constructed under the fire code of the municipality, county, or fire district, rather than in compliance with the state fire code.

#### 9. Updated MAG Building Codes Committee Membership

There were no updates.

#### 10. Updated Survey of Code Adoption

There were no updates.

#### 11. Topics for Future Agendas

Scott Wilken said that the next agenda can include the two items discussed at this meeting as action items, as well as an item for pier fixes for foundations.

#### 12. Adjournment

Larry Taylor said that the next meeting of the Building Codes Committee will be February 17, 2016.

Brett Harris made a motion to adjourn. Tom Ewers seconded the motion and the motion passed unanimously. The meeting was adjourned at 3:25 pm.