

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
BUILDING CODES COMMITTEE

August 20, 2014

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

COMMITTEE MEMBERS

Mary Dickson, El Mirage, Chair  
Larry Taylor, Gilbert, Vice Chair  
Brett Harris, Avondale  
Phil Marcotte, Buckeye  
\*Mike Tibbett, Carefree  
\*Mike Baxley, Cave Creek  
\*Ron Boose, Chandler  
\*Jason Field, Fountain Hills  
Tom Paradise, Glendale  
David Whittaker for Ed Kulik, Goodyear  
\*Chuck Ransom, Litchfield Park  
Robert Goodhue, Maricopa  
Tom Ewers, Maricopa County

Donna Canale for Steven Hether, Mesa  
\*Bob Lee, Paradise Valley  
A-Cheryl Mullis for Dennis Chase, Peoria  
Michael Abegg, Phoenix  
\*Michael Williams, Queen Creek  
\*Michael Clack, Scottsdale  
\*Brigham Bennett, Surprise  
A-Martin Perez, Tempe  
Dale Crandell, Tolleson  
\*Kevin Bruce, Wickenburg  
Gregory Arrington, Youngtown  
\*Jackson Moll, Home Builders Association  
\*Sharon Bonesteel, Salt River Project

OTHERS IN ATTENDANCE

Scott Wilken, MAG  
Merry Holmgren, MAG  
Gary Golka, Independent Electrical  
Contractors  
A-Fredric Zwerg, Southwest Gas  
Brad Mecham, Sunrise Engineering  
A-Roger Vermillion, Tempe  
David Sanchez, Phoenix

Jake Hinman, Multi-Housing Association  
John Bradley, Bradley Electric  
Shawn Hutchinson, Phoenix Electrical  
Apprenticeship  
Bob Swier, RDS Electric  
Mike Ornoski, Phoenix  
Chris Baggett, APS  
Nancy Levey, IECA

\*Those members neither present nor  
represented by proxy.  
A-Those members participating via  
audioconference

1. Call to Order

Mary Dickson, Chair, called to order the August 20, 2014 meeting of the MAG Building Codes Committee (BCC) at 2:00 p.m.

2. Introductions

Voting members Martin Perez and Cheryl Mullis attended via telephone conference call. In addition, Fredric Zwerg and Roger Vermillion attended the meeting via telephone conference call as members of the audience. All members and guests introduced themselves.

3. June 18, 2014 Meeting Minutes

Tom Ewers made a motion to approve the June 18, 2014 minutes. Larry Taylor seconded the motion, and the motion passed unanimously.

4. Call to the Audience

There were no comments from the audience.

5. Comments From the Committee

Mary Dickson reminded the committee about the Arizona Building Officials (AZBO) Fall Education Institute will be October 20-24 in Prescott.

Scott Wilken asked the committee members if anyone knew of water companies implementing smart water metering. Mary Dickson said that El Mirage uses smart water metering. Tom Paradise said that apartment complexes have asked for something like that, but the city is not moving in that direction at this time.

Michael Abegg talked about Certified Building Official Training that was held by the City of Phoenix, Salt River Project (SRP) and AZBO. He also said that the city has seen interest in using shipping containers as building materials, and asked if any other jurisdictions have seen that. Larry Taylor said that Mobile Mini had contacted Gilbert, and they say that only Gilbert and Tucson regulate and permit them. Tom Ewers said that Maricopa County regulates storage containers used as office buildings, and tell the applicant to get either approval from the state department of manufactured housing or submit building plans. Gregory Arrington said that Youngtown requires the same thing. Michael Abegg said that they have been told that they're alone in regulating this, but that's clearly not the case. Donna Canale said that she has explained to applicants that they have to put a slab under the container, show insulation, put all the electrical and mechanical, show how the roof drains, and explains that the container has taken the place of the studs only. She said that most end up not pursuing the container as building material at that point. Michael Abegg said that most are trying to save costs by using a container, but he hasn't seen it work in this area.

6. Multi-Family Construction

Michael Abegg gave a presentation on common problems seen with multi-family housing building plan submittals. He discussed issues related to height modifications and fire sprinklers,

area modifications, single occupancy and mixed occupancy buildings, podium buildings, fire resistance for building elements, definition of a column, fire resistance rating of structural members, column protection, protection of secondary members, rated wall assemblies, means of egress, and structural design related to shrinkage. Tom Ewers said that Maricopa County hasn't seen very much multi-family housing construction in more than a decade. Michael Abegg asked who was seeing a lot of multi-family submittals. Mesa, Gilbert, Glendale, Tempe, and Scottsdale were indicated to be jurisdictions seeing a lot of multi-family construction. Donna Canale discussed Mesa's policy regarding triplexes and row house-type construction, with firewalls in between each unit, and whether or not each unit needed sprinklers. Michael Abegg said that Phoenix has seen row houses constructed with a single unit with exterior walls placed right next to another single unit with exterior walls. He said that the International Residential Code (IRC) would require sprinklers for each unit, but there is a state law that prohibits a jurisdiction from requiring a builder from installing sprinklers in a dwelling, defined as a one or two unit building. He said Phoenix considers those single-family detached or duplexes, but if a third unit is added each is required to have sprinklers. He said that if firewalls are put in between the units, it becomes an R3 construction, and has to be detailed per the International Building Code (IBC). He said that if it is a one or two unit dwelling, it is not required to have sprinklers. Donna Canale said that is how Mesa ruled the question, as well. Michael Abegg discussed shrinkage with wood frame construction on taller buildings, and recommended woodworks.org as a good resource for designing wood frame construction for five story buildings.

Tom Paradise asked about reactions of developers to these various code rulings and interpretations in Phoenix. He asked if they are willingly accepting the decisions or if there is pushback, and if the design engineers are aware of these issues. Michael Abegg said that most customers simply want to know what the requirement is, and would like consistency across jurisdictions. He said that it is hard on designers who design to a certain standard and go to a different jurisdiction and find a different standard. Tom Paradise said that sometimes they see plans that are above and beyond the minimum standard required by the code, but they do not tell the applicant that the plans could be designed a cheaper way and still comply with the code.

## 7. Solar Ready II

Scott Wilken introduced a discussion on the MAG Solar Ready II project. He said that one of the Best Management Practices (BMP) being discussed for the project is the creation of a pre-qualified solar installers list. He introduced Mike Ornoski and David Sanchez to discuss some ideas for this BMP. David Sanchez said that he looked into online training for solar installation. He said that they have seen people from a variety of different disciplines installing solar equipment, including electricians and roofers. He said he looked at the National Fire Protection Association (NFPA) to see what kind of certifications they have, as well as the International Association of Electrical Inspectors (IAEI) online training. He said that there is interest from the IAEI. Mike Ornoski said that they have reached out the local apprenticeships, but they, like everyone else, are still trying to understand all the issues with this fast growing and fast changing technology. He said that the codes and certifications are having a hard time keeping up with the changes in the solar industry. He said the issue is that the only solar-related certifications seem to be on the electrical side only, and don't address the structural issues. He said that the Registrar of Contractors is running into the same problem, and that they don't have any kind of solar installation license. David Sanchez said that previously most of these systems were 600 volts or less, but now the industry is moving toward systems as much as 1000 volts, which will create new issues for installations. He said these larger systems will require much

more expertise in the installers. Mike Ornoski said that some common issues are requiring multiple municipal inspections, which could be eliminated if there were a baseline established.

Tom Paradise asked what the end goal of this BMP is. He asked if the proposal is only certified contractors would be allowed to install solar, or if an applicant has certified installers they can get a faster permit, or something else. Scott Wilken said that is part of the question at hand, but those are some of the options. Mike Ornoski said that part of the problem Phoenix is having is that their residential inspectors cannot go on the roof to inspect the installations. He said that if contractors are on the certified list, at least the inspectors will know that they have qualified people doing the rooftop installation. He said that another possibility is adding solar inspection to the Special Inspection program, so that municipal inspectors don't need to go on the roof at all. Robert Goodhue spoke about supporting the idea of using the Special Inspection process. He said that it sounds like presently the local jurisdictions are not able to provide the level of service that is expected of them, but the Special Inspection process could provide that in place of local inspections. John Bradley said that there is training available for solar installers, including the North American Board of Certified Energy Practitioners (NABCEP) certification. He said that a few years ago Arizona Public Service (APS) and the Electric League had a good training, as well. He said one of the biggest issues with installations is roof penetrations. Bob Swier said his company was prequalified by APS as an installer for them, and discussed the items included in the APS training. He said that the electrical part of the installation is pretty basic for electrical contractors. He said that the local jurisdictions are requiring licensed contractors of some sort to do the installations, but the big hole in the system is how to properly inspect the installation. He said that most likely a proper inspection would have to be done by a third party. Gary Golka said that his company strives to handle the electrical side. He said that NABCEP is a great place for electricians to learn about wind loads and other structural issues, but he doesn't know of any electrical training anywhere that would cover all the aspects of solar installation, including wind loads and roof penetrations. Shawn Hutchinson said that the best practice is to ensure that the proper trades are performing the proper tasks, having the roofers take care of the roof penetrations and the electricians take care of the electrical work. He said he has heard of situations where roofers end up getting into the electrical connections, which could cause major problems. He said that this is an issue that needs to be addressed with some kind of policy across the state.

Scott Wilken said that he will bring the issue back to the committee at the next meeting to give the members a proposal to react to and hopefully come up with a document that can be taken forward.

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

There were no updates.

#### 9. Updated Survey of Code Adoption

There were no updates.

#### 10. Topics for Future Agendas

Michael Abegg said he would like a discussion about sprinklers in residences.

Donna Canale said that she wants to lead a discussion about sneaky churches in shopping centers.

Tom Ewers asked about the Legislative Update. Scott Wilken said that those will be on the agenda while the Legislature is in session, which is typically January through April.

#### 11. Adjournment

Mary Dickson said that the next meeting of the Building Codes Committee will be September 17, 2014.

Dale Crandell made a motion to adjourn. Gregory Arrington seconded the motion and the motion passed unanimously. The meeting was adjourned at 3:25 pm.