

November 12, 2014

TO: Members of the MAG Building Codes Committee

FROM: Mary Dickson, El Mirage, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, **November 19, 2014** - 2:00 pm
MAG Office, Second Floor, Ironwood Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Building Codes Committee (BCC) has been scheduled for the time and place noted above. Members of the MAG Building Codes Committee may attend in person, by videoconference or by telephone conference call. Those attending by telephone conference call must make arrangements with Merry Holmgren at MAG at (602) 254-6300 at least one day prior to the meeting.

If you drive to the meeting, please park in the garage under the building and bring your ticket to the meeting; parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Scott Wilken at the MAG office. Requests should be made as early as possible to allow time to arrange for accommodation.

Please be advised that under procedures approved by the MAG Regional Council on June 26, 1996, all MAG committees must have a quorum to conduct business. A quorum is a simple majority of the membership, or 12 people for the MAG Building Codes Committee. If you are unable to attend the meeting, please send a proxy from your jurisdiction or agency to represent you.

If you have any questions or require additional information, please contact Scott Wilken at (602) 254-6300 or swilken@azmag.gov.

TENTATIVE AGENDA
MAG Building Codes Committee Meeting
November 19, 2014

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| 1. <u>Call to Order</u> | 2. For information. |
| 2. <u>Introductions</u> | 3. Review and approve the minutes of the September 17, 2014 meeting. |
| 3. <u>September 17, 2014 Meeting Minutes</u> | 4. For information and discussion. |
| 4. <u>Call to the Audience</u>

Members of the public may request to speak on items that fall under the jurisdiction of the MAG Building Codes Committee (BCC) and are not scheduled on the agenda; or, on items on the agenda for discussion but not for action. A total of 15 minutes will be provided for the Call to the Audience, with a limit of three minutes per speaker, unless the Chair requests an exception to this limit. Those requesting to comment on action agenda items may be provided an opportunity to do so at the time the agenda item is heard. | 5. For information and discussion. |
| 5. <u>Comments From the Committee</u>

An opportunity will be provided for Building Codes Committee members to present a brief summary of current events. The Building Codes Committee is not allowed to propose, discuss, deliberate or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed in accordance with the Arizona Open Meeting Law. | 6. For information, discussion, and possible action. |
| 6. <u>Solar Ready II Update</u>

An update on the Solar Ready II project will be provided. Potential best management practices pursued by the project, including pre-qualification of solar installers and an optional solar ready construction checklist, will be discussed. Please see Attachment One . | |

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| 7. <u>Medical Marijuana Facilities</u>

A discussion of building code issues related to medical marijuana facilities. | 7. For information and discussion. |
| 8. <u>Updated MAG Building Codes Committee Membership</u>

We are requesting that Committee members review Attachment Two , Committee Roster, sent with this agenda. Please forward any changes to Scott Wilken prior to the meeting or provide them at the meeting. | 8. For information and discussion. |
| 9. <u>Update Survey of Code Adoption</u>

Attachment Three identifies the codes that member agencies have adopted. Please review this information and provide any updates to Scott Wilken. | 9. For information and discussion. |
| 10. <u>Topics for Future Agendas</u>

Potential topics for the next meeting will be discussed. Please share any items of discussion or presentations that you would be interested in hearing about at future meetings.

The next meeting is scheduled for Wednesday January 21, 2015 at 2:00 p.m. in the MAG Ironwood Room. | 10. For information and discussion. |
| 11. <u>Adjournment</u> | 11. |

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
BUILDING CODES COMMITTEE

September 17, 2014

Maricopa Association of Governments Office
302 N. 1st 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
Ed Kulik, Goodyear
*Chuck Ransom, Litchfield Park
Robert Goodhue, Maricopa
Tom Ewers, Maricopa County

Donna Canale for Steven Hether, Mesa
*Bob Lee, Paradise Valley
#Dennis Chase, Peoria
*Michael Abegg, Phoenix
*Michael Williams, Queen Creek
Michael Clack, Scottsdale
*Brigham Bennett, Surprise
#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
Bert Stone, Stantek Consulting

*Those members neither present nor
represented by proxy.

#Those members participating via
audioconference

1. Call to Order

Mary Dickson, Chair, called to order the September 17, 2014 meeting of the MAG Building Codes Committee (BCC) at 2:01 p.m.

2. Introductions

Voting members Martin Perez, Dennis Chase, and Kevin Bruce attended via telephone conference call. In addition, non-voting member Sharon Bonesteel attended via telephone conference call. All members and guests introduced themselves.

3. August 20, 2014 Meeting Minutes

Larry Taylor corrected that in item 5, his comments were referring specifically to Mobile Mini contacting Gilbert, not necessarily other cities. Tom Ewers made a motion to approve the August 20, 2014 minutes as amended. Robert Goodhue 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.

6. Report on AZBO Code Review and Development Committee

Sharon Bonesteel gave a report on the AZBO Code Review and Development Committee meeting from August 28th. She said that the committee clarified that the purpose of the committee is to review the 2015 International Code Council (ICC) codes, to prepare amendments to comply with state regulations, to prepare an amendment package for review and approval by the AZBO Board, and prepare any code change proposals for submittal to ICC for the 2018 codes. She said that code changes for the 2015 codes need to be submitted by January 1. Mary Dickson asked if the code changes are only for the International Energy Conservation Code. Sharon Bonesteel said that the changes would be for any of the ICC codes. Mary Dickson asked how someone finds out about meeting dates. Sharon Bonesteel said that the meeting schedule will be posted on the AZBO website.

7. Solar Ready II

Scott Wilken introduced a discussion on the MAG Solar Ready II project. He said the two Best Management Practices (BMPs) that this committee would be discussing are the optional Solar Ready Construction Checklist and Pre-Qualified Solar Installers List. He said that the Solar Ready Checklist would be available for homebuilders to use when they want to build homes that are ready for solar to be installed, but would not be mandatory. He asked for comments on the draft checklist. Donna Canale said that Mesa has had some master plans come in with specific solar ready notes, to ensure that stacks and vents are not installed in the way of

future solar arrays. She suggested specifying minimizing vents on the checklist, in addition to rooftop equipment. Tom Paradise noted a spelling error in the draft document. Tom Ewers questioned a line related to local zoning regulations and preventing future shading. Robert Goodhue said that ensuring solar panels have adequate access to sunlight is not within the purview of the building code. Jackson Moll suggested combining the first two items to reduce the concerns about zoning and shading. Scott Wilken said he will make the updates, and bring the draft document to the committee at the next meeting for a vote.

Scott Wilken introduced the second BMP, Pre-Qualified Solar Installers List. He said the two big issues to be resolved with this are what form would the list take and what incentive would an installer have for being on the list. Tom Paradise suggested using language that allows the local inspector to have access to the special inspector certification and that if a special inspector is used for solar inspections, even if the inspection is passed, the local government doesn't necessarily have to pass the inspection, in case anything is missed by the special inspector. Ed Kulik said there is nothing in the ICC codes for a solar special inspector, and asked what kind of special inspector would be used. Tom Paradise said it would mainly be electrical. Ed Kulik said that there would have to be structural inspection, too. Robert Goodhue discussed the need for standard criteria created by the International Accreditation Service (IAS) for a special inspector, and the requirement that a special inspector be recertified periodically.

Michael Clack said that he would be reluctant to get into the business of licensing at a local level. Scott Wilken said that ideally something like this would rely on some kind of established, national certification list, rather than maintained locally. Robert Goodhue made the point that an installation is only as good as the installation crew, and being certified does not guarantee a good installation.

Scott Wilken said that hiring a special inspector would create additional cost on the part of the installer, and asked what the local jurisdictions could do to help offset that cost. Robert Goodhue said it was feasible to have a reduced cost on the permitting side, but that might not completely offset the cost of the special inspector. Tom Ewers said that the cost of a special inspector could be double the cost of the permit itself, if not more. Ed Kulik said that Goodyear only charges \$35 for a solar permit, so reducing that fee would not offset a special inspector cost very much. Mary Dickson suggested looking at the Certified Fire Sprinkler and Alarm Program as an example of how something like this could be done.

Scott Wilken asked if the committee members feel there is a need for some kind of certification of solar installers. Robert Goodhue said that it seems there are unqualified people installing solar arrays in the field, but the key would be getting the industry on board with getting their installers better qualified. He discussed potentially educating installers in the industry. Donna Canale discussed industries that had created criteria for self-certification, like the landscaping industry or interior decorators. Sharon Bonesteel said that they have seen a number of unsafe solar installations, and that pursuing a solar licensing program through the state Registrar of Contractors (ROC) would be an appropriate course of action. Michael Clack said that the ROC is trying to get out of the business of providing licenses with limited need. Ed Kulik said that the ROC is pursuing installation companies that do shoddy work because they are getting complaints from citizens, so they may be interested in creating a solar installation license. Sharon Bonesteel said that her inspectors find a few installations each week that have issues. Tom Paradise said that the ROC licenses a contractor, but does not ensure that only licensed contractors do the work. He said that the licensed contractor is liable for whoever they hire to do the work.

Scott Wilken said that there were a lot of good ideas discussed, and will bring more information to the committee at the next meeting.

8. Code Implications of Assembly Uses in Shopping Centers

Donna Canale gave a presentation on assembly uses in shopping centers. She described common issues seen when an assembly use wants to operate in a space designed for business and mercantile, usually without intending to do any construction. She discussed the building systems that are affected, including: occupancy calculations, required exits, sprinkler requirements, kitchenettes that serve and prepare food for large groups (and are not commercial kitchens), plumbing facilities, separation requirements for mixed use and area modifications, mechanical ventilation, and parking.

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

Mary Dickson said that she would like to have a discussion on medical marijuana grow facilities. Robert Goodhue said he would like to have a discussion on electronic plan review. Phil Marcotte asked about residents installing their own solar systems purchased at a retail store.

12. Adjournment

Mary Dickson said that the next meeting of the Building Codes Committee will be October 15, 2014.

Larry Taylor made a motion to adjourn. Gregory Arrington seconded the motion and the motion passed unanimously. The meeting was adjourned at 3:36 pm.

Maricopa Association of Governments Building Code Amendments and Standards Manual BCAS #17	
Title: Solar Ready Construction Checklist	
Originally Reviewed by MAG Building Codes Committee: 11/19/2014	
Updated by MAG Building Codes Committee:	

Home builders who want to construct houses that are designed to ease the installation of solar photovoltaic systems (Solar Ready Homes) may use this checklist to ensure their houses are constructed to not require additional modification to accommodate solar systems.

- Provide a Site Plan showing the best space available for accommodating Photo Voltaic (PV) equipment (meter, disconnect & inverter) with minimum area of 4 square feet, as well as minimizing shade on the array.
- Locate the PV equipment adjacent to the electrical service panel if feasible or on a wall close to the proposed collector panel space.
- Show on the Site Plan the best roof space available for accommodating PV solar collector panels. Roofs should be south-facing and located to best avoid shading from trees and other buildings and equipment.
- Provide a roof structure designed for the additional collector dead loading (typically 3-6 lbs/SF).
- Show a minimum 3,800 volt-ampere PV electrical load entry on the Service Load Calculation. This load is continuous as with heating and cooling loads.
- Show an Electrical Panel Schedule with a 240 volt circuit breaker space labeled "reserved for Photo Voltaic".
- Minimize roof-top equipment and vents to maximize available open space for solar collector placement.
- Wind loads on rooftop solar equipment must be analyzed to ensure that the roof structure is sufficient.
- Run electrical conduit from the solar collector location to the electrical panel and other electrical components.
- Make sure all equipment is in compliance with the current version of the National Electrical Code (NEC).
- Verify that roofing warranties accommodate installation of rooftop solar equipment.
- Record roof specifications, such as any reinforcement done in preparation for solar, in site drawings to benefit future solar installers.

MAG BUILDING CODES COMMITTEE MEMBERSHIP AS OF
11/12/2014

Voting Members				
Name	Representing	Telephone #	Fax #	E-mail Address
Mary Dickson (Chair)	El Mirage	623-876-2932	623-876-4607	mdickson@cityofelmirage.org
Larry Taylor (Vice Chair)	Gilbert	480-503-6958	480-497-4923	larry.taylor@gilbertaz.gov
Brett Harris	Avondale	623-333-4027	623-333-0400	bharris@avondale.org
Phil Marcotte	Buckeye	623-349-6200	623-349-6221	pmarcotte@buckeyeaz.gov
Mike Tibbett	Carefree	480-488-1471	480-488-3845	mike@carefree.org
Mike Baxley	Cave Creek	480-488-6637	480-488-2263	mbaxley@cavecreek.org
Ron Boose	Chandler	480-782-3018	480-782-3110	ron.boose@chandleraz.gov
Jason Field	Fountain Hills	480-816-5127	480-837-3145	jfield@fh.az.gov
Tom Paradise	Glendale	623-930-3143	623-915-2695	tparadise@glendaleaz.com
Ed Kulik	Goodyear	623-882-7932	623-882-7114	ekulik@goodyearaz.gov
Chuck Ransom	Litchfield Park	623-935-1066	623-535-9754	cransom@litchfield-park.org
Bob Goodhue	Maricopa	520-316-6942		bob.goodhue@maricopa-az.gov
Tom Ewers	Maricopa County	602-506-7145	602-506-3282	tomewers@mail.maricopa.gov
Steven Hether	Mesa	480-644-2039	480-644-4900	steve.hether@mesaaz.gov
Bob Lee	Paradise Valley	480-348-3631	480-951-3751	rlee@paradisevalleyaz.gov
Dennis Chase	Peoria	623-773-8420	623-773-7233	dennis.chase@peoriaaz.gov
Michael Abegg	Phoenix	602-534-6498		michael.abegg@phoenix.gov
Michael Williams	Queen Creek	480-358-3009	480-358-3001	michael.williams@queencreek.org
Michael Clack	Scottsdale	480-312-7629	480-312-9029	mclack@scottsdaleaz.gov
Brigham Bennett	Surprise	623-222-3056	623-222-3002	brigham.bennett@surpriseaz.gov
Martin Perez	Tempe	480-350-8670	480-350-8677	martin_perez@tempe.gov
Dale Crandell	Tolleson	623-936-7111	623-936-7117	dcrandell@tollesonaz.org
Kevin Bruce	Wickenburg	928-684-5451 x513	602-506-1580	kbruce@wickenburgaz.org
Gregory Arrington	Youngtown	623-933-8286	623-933-5951	garrington@youngtownaz.org
Non-Voting Members				
Name	Representing	Telephone #	Fax #	E-mail Address
Jackson Moll	Home Builders Assn.	602-274-6545	480-556-5478	mollj@hbaca.org
Sharon Bonesteel	Salt River Project	602-236-4498	602-236-2791	sharon.bonesteel@srpnet.com
Jim Ricker	Town of Guadalupe	480-505-5380	480-730-3097	jim@guadalupeaz.org
Alfonso Rodriguez	Fort McDowell Yavapai Nation	480-789-7740	480-789-7798	arodriguez@ftmcdowell.org
Michael McMillan	Brown and Associates	480-991-3751	480-596-5065	mac@brown-and-associates.net
Dennis Dixon (T)	Apache Junction	480-671-5156	480-982-7010	dennisdixon@ajcity.net

(T) Temporary

Survey of Code Adoption

Jurisdiction	Building	Mechanical	Plumbing	Electric	Residential	Fire	Energy	Existing Building	Fuel Gas	Property Maintenance	Green Construction	Notes	URL	Effective Date	Anticipated Effective Date for 2009 or 2012 ICC Codes
Apache Junction	2006 IBC	2006 IMC	1994 UPC	2005 NEC	2006 IRC	2006 IFC							Apache Junction		
Avondale	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2003 IFC	2012 IECC		2012 IFGC				Avondale	7/3/2013	
Buckeye	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC	2006 IPMC		With city amendments.	Buckeye	1/17/2014	
Carefree	2003 IBC	2003 IMC	1994 UPC	2002 NEC	2003 IRC	2003 IFC							Carefree	7/1/2006	Not going to adopt, staying with 2003.
Cave Creek	2009 IBC	2009 IMC	2009 IPC	2008 NEC	2009 IRC	2009 IFC	2009 IECC	2009 IEBC	2009 IFGC				Cave Creek	1/1/2012	
Chandler	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC				Chandler	8/1/2013	
El Mirage	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC		2012 IGCC (optional)		El Mirage	7/1/2013	
Fountain Hills	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2006 IECC		2012 IFGC			2012 Uniform Swimming Pool, Spa, and Hot Tub Code	Fountain Hills	11/21/2013	
Gila Bend	2006 IBC	2006 IMC	2006 IPC	2005 NEC	2006 IRC	2006 IFC							Gila Bend		
Gila River	2006 IBC	2006 IMC	2006 IPC	2005 NEC	2006 IRC	2003 IFC							Gila River		
Gilbert	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2006 IECC		2012 IFGC		2012 IGCC (optional)	w/ 2012 IECC as voluntary	Gilbert	12/7/2013	
Glendale	2012 IBC	2012 IMC	2012 IPC 2012 UPC	2011 NEC	2012 IRC	2009 IFC	2012 IECC	2012 IEBC	2012 IFGC			With city amendments.	Glendale	12/1/2012	
Goodyear	2006 IBC	2006 IMC	1994 UPC	2005 NEC	2006 IRC	2006 IFC	2006 IECC						Goodyear		
Guadalupe	1997 UBC	1997 UMC	1994 UPC	1999 NEC	1997 UBC	1997 UFC							Guadalupe		
Litchfield Park	2006 IBC	2006 IMC	2006 IPC	2005 NEC	2006 IRC	2003 IFC	2006 IECC		2006 IFGC				Litchfield Park	7/1/2008	
Maricopa	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC		2012 IFGC	2012 IPMC			Maricopa	1/1/2013	
Maricopa County	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC		2012 IECC (optional)	2012 IEBC	2012 IFGC		2012 IGCC (optional)		Maricopa County	1/1/2014	
Mesa	2006 IBC	2006 IMC	2006 IPC	2005 NEC	2006 IRC	2006 IFC	2009 IECC	2006 IEBC	2006 IFGC				Mesa		
Paradise Valley	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC		2012 IFGC				Paradise Valley	1/1/2013	
Peoria	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC		2012 IFGC	2012 IPMC			Peoria	5/1/2013	
Phoenix	2012 IBC	2012 IMC	2012 IPC 2012 UPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC		2012 IGCC		Phoenix	7/1/2013	
Queen Creek	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC				Queen Creek	1/1/2014	
Salt River	2003 IBC	2003 IMC	2003 UPC	2002 NEC	2003 IRC	2003 IFC							Salt River		
Scottsdale	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC	2012 IPMC	2012 IGCC		Scottsdale	1/7/2013	
Surprise	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC	2012 IECC	2012 IEBC	2012 IFGC	2006 IPMC	2012 IGCC (optional)		Surprise	9/1/2014	
Tempe	2009 IBC	2009 IMC	2009 IPC	2008 NEC	2009 IRC	2006 IFC	2009 IECC	2009 IEBC	2009 IFGC				Tempe		
Tolleson	2006 IBC	2006 IMC	2006 IPC	2006 IEC 2005 NEC	2006 IRC	2006 IFC	2006 IECC		2006 IFGC	2006 IPMC			Tolleson	7/1/2007	Discussing adopting 2012 codes 1/2014
Wickenburg	2006 IBC	2006 IMC	2006 IPC	2005 NEC	2006 IRC	2003 IFC	2006 IECC	2006 IEBC	2006 IFGC				Wickenburg		No plans to adopt 2009 codes.
Youngtown	2012 IBC	2012 IMC	2012 IPC	2011 NEC	2012 IRC	2012 IFC		2012 IEBC	2012 IFGC	2012 IPMC			Youngtown	1/1/2014	

This is intended to be used as a guide for the selected codes, as to what member agencies have adopted or intend to adopt.

Last updated August 26, 2014 by Scott Wilken, MAG

Source: MAG Building Codes Committee Members