

February 9, 2012

TO: Members of the MAG Bicycle and Pedestrian Committee

FROM: Reed Kempton, Scottsdale, Chair of the MAG Bicycle and Pedestrian Committee

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Tuesday, February 21, 2012 at 1:30 p.m.  
MAG Offices, Ironwood Room, Second Floor  
302 North First Avenue, Phoenix

A meeting of the MAG Bicycle and Pedestrian Committee will be held at the time and place noted above. Committee members may attend the meeting either in **person, by video conference or by telephone conference call**. Those attending by videoconference must notify the MAG site five days before the meeting. Those attending by telephone conference call are requested to call (602) 744-5840 and the meeting I.D. is 2453.

If you are attending in person, please park in the garage under the building. Bring your ticket to the meeting and 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 parking 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 Maureen DeCindis at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum to conduct business. A quorum is a simple majority of the membership. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. If you have any questions, please contact Maureen DeCindis at (602) 452-5073, or send email to [mdecindis@azmag.gov](mailto:mdecindis@azmag.gov).

## TENTATIVE AGENDA

1. Call to Order

2. Approval of the January 17, 2012 Meeting Minutes of the Bicycle and Pedestrian Committee.

3. Call to the Audience

An opportunity will be provided to members of the public to address the committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard. Please fill out blue cards for Call to the Audience and yellow cards for Action Items.

4. Staff and Member Agency Reports

Staff and committee members are invited to provide an update of pedestrian and bicycle-related activity in their agencies.

5. MAG Bike Count Project

Committee will review and comment on the draft scope for the MAG Bike Count Project. Committee members will begin to identify locations for the count.

2. For information, discussion and action to approve the meeting minutes of the January 17, 2012 Bicycle and Pedestrian Committee meeting.

3. For information.

4. For information and discussion.

5. For information and discussion.

6. Federal Transit Administration (FTA) Livability Grants

Alice Chen will explain how bicycle and pedestrian projects enhance the quality of local applications for the Federal Transit Administration grants.

7. MAG Bike Map

MAG staff will request locations to photo premier bicycle facilities that lead to major destinations for the back of the 2012 MAG Regional Bikeways Map.

8. Bike Education Program

The Coalition of Arizona Bicyclists will present the final scope of work for the two bike education projects.

9. Request for Future Agenda Items

Members will have the opportunity to suggest future agenda topics.

10. Next Meetings

All meetings will be on the third Tuesday of the month in the Ironwood Room at 1:30 p.m., except where otherwise noted.

February 21, 2012

~~March 20, 2012~~ cancelled

April 17, 2012

May 15, 2012

June 19, 2012

July 17, 2012

August 21, 2012

September 18, 2012

October 16, 2012

November 20, 2012

December 18, 2012 (noon)

6. For information and discussion.

7. For information and discussion.

8. For information and discussion.

9. For information and discussion.

10. For information and discussion.

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
BICYCLE AND PEDESTRIAN COMMITTEE

Tuesday, January 17, 2012 at 1:30 p.m.  
MAG Office Building, Chaparral Room  
302 North First Avenue, Phoenix

MEMBERS ATTENDING

Reed Kempton, Scottsdale, Chair of Bicycle and Pedestrian Committee	* Steve Hancock, Glendale
Margaret Boone, Avondale, Vice-Chair of Bicycle and Pedestrian Committee	^ Mark Hannah, Youngtown
Michael Sanders, ADOT	* Joe Schmitz, Goodyear
* Tiffany Halperin, ASLA, Arizona Chapter	Paul Ward for Michael Cartsonis, Litchfield Park
* Robert Wisener, Buckeye	* Denise Lacey, Maricopa County
* D.J. Stapley, Carefree	Jim Hash, Mesa
Chris Mosely for Bob Beane, Coalition of Arizona Bicyclists	Brandon Forrey, Peoria
Jason Crampton, Chandler	^ Katherine Coles, Phoenix
Ken Maruyama for Tami Ryall, Gilbert	Dawn Coomer, RPTA
	David Neal for Karen Savage, Surprise
	Eric Iwersen, Tempe

\*Members neither present nor represented by proxy.

^Attended via audio-conference

OTHERS PRESENT

Vincent Lopez, Maricopa County Health Dept.	Madhuri Uddareju, Atkins
Peter Schelstraete, Tempe Transp. Commission	Jason Harrington, e group
Joe Perez, City of Phoenix	Jothan Samuelson, MAG
Leticia Vargas, City of Phoenix	Monique de los Rios Urban, MAG

1. Call to Order

Reed Kempton called the meeting to order at 1:30 p.m.

2. Approval of the December 13, 2011 Meeting Minutes of the Bicycle and Pedestrian Committee

Jim Hash moved to approve the meeting minutes of the Bicycle and Pedestrian Committee for December 13, 2011. Margaret Boone seconded the motion. The motion passed unanimously.

3. Call to the Audience

An opportunity was provided to members of the public to address the MAG Bicycle and Pedestrian Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public were requested not to exceed a three minute time period for their comments. A total of 15 minutes was provided for the Call to the Audience agenda item, unless the Bicycle and the Pedestrian Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items were given an opportunity at the time the item was heard. No one addressed the committee.

4. Staff and Member Agency Reports

This item was tabled.

5. MAG Bike Count Project

Sherry Ryan of Fehrs & Peers presented the draft scope for the MAG Bike Count Project. Committee members will be give input as to the direction and focus of the project.

*Agenda for this presentation:*

1. Project Goals
2. Regional Framework for Bicycle Count Program
3. Available Technologies
4. Options for the *MAG Bicycle Count Project*
5. Committee Input
6. Technology Preferences
7. Count Locations

One of the main goals of the Bike Count project is Performance Monitoring in the areas of air quality, mode shift / congestion reduction, public health/active transportation. There is also regional, corridor or intersection bicycle demand analyses and funding and investment decision support. MAG is in the process of adapting a new Activity Based Model and this information will feed into that model.

*Proposed Regional Network of Count Stations*

- Optimally, 150-200 locations along the existing network
- Input from committee members for ideal locations
- And develop Strata for a representative sampling of locations based upon population density, employment density and household income
- Consider existing activity centers and transit nodes
- MAG model wants to do screen line counts to fit into its model

What is the optimal network of bike count stations that will give the full comprehensive regional network?

*Example of a Bike Count in San Diego to achieve comprehensive count:*

- Identified a potential regional network of 170 count stations
- Installed automated counters (paid for by Centers for Disease Control) in 40 locations plus manual counts 75 locations
- Locations reflect variation in population, employment and income found in SD as a whole

*Available Count Technologies*

- Manual
- Video
- Passive or Active Infrared
- Inductive Loops
- Combination of Passive Infrared and Inductive Loops

*Manual Count*

- 2-hr peak period counts
- Student staffing or hire data collection company
- Can capture information about the location of cyclist in the right of way (travel lane, bike lane or sidewalk)
- Can capture information about the direction the cyclist is riding with or against traffic flow
- Gender
- Helmet use

*Video Recording*

- 24-hour video recordings with data reduction
- Can include same detail as manual counts
- Similar labor requirements as manual counts

*Passive Infrared*

- Equipment emits beam and records count when beam is broken
- Can't distinguish bike and pedestrian
- Can't have movement in background so it must be facing a wall.
- Can't count bikes in roads because it would count cars as well.

*Active Infrared*

- Emits beam and records speed and direction
- Distinguishes bike and pedestrian using speed recordings
- Requires "double" installation (2 units in 2 locations along a path)
- Requires visit to field for data download

*Inductive Loop*

- Inductive loop installed in asphalt and connected to logger in valve box underground
- Doesn't count cars, only cyclists
- 2-year battery; Modem for automated data upload

*Inductive Loops with Passive Infrared*

- Combination of *inductive* and *infrared* technologies to record pedestrians and cyclists. Applied on Class I paths, not on-street facilities.

*Eco-Counter Technology*

- In-street counting possible
- Loops distinguish bikes from cars
- Long battery life
- Data upload to internet website is continuous and automated via modem installed with data logger
- Data summary is automated or available in raw format

*Spreadsheet Data Downloads*

- Cumbersome formats of manual and other automated equipment
- 15' to 1 hr intervals that require data manipulations

*Eco-Counter Data Downloads*

- Raw data is collected at 15 minute intervals
- Internet based software performs automated summaries

Costs for the different technologies:

Technology	Duration of Count	Cost Per Locations	Bike	Ped	Distinguish Bike and Pedestrian	Other Info Beyond Count	Max Number of Locations
Manual	2-hour peak period	\$100	Yes	Yes	Yes	Yes	480
Video	24-hours	\$750	Yes	Yes	Yes	Yes	64
Passive Infrared (path only)	Ongoing	\$4,000	Yes	Yes	No	No	12
Active Infrared (path only)	Ongoing	\$4,000	Yes	Yes	Yes	No	12
Inductive Loop	Ongoing	\$3,000	Yes	No	No	No	16
Combo	Ongoing	\$4,700	Yes	Yes	Yes	No	10

Maureen DeCindis explained that because the source of the funds paying for this study are from federal planning funds, they cannot be used for construction.

Eric Iwersen suggested manual counting in both directions especially at intersections.

1. How many locations in Phoenix area?
2. What technology?
3. Where should each technology be located?

Reed Kempton asked the consultant to define the Class system that is used in California.

- Class I means separated path.
- Class II means striped bike lane.
- Class III means bike route.

*Option 1*

- 150 afternoon peak period (4-6PM) manual counts
- Purchase and install automated counters in seven locations

PROS	CONS
<ul style="list-style-type: none"><li>• Data collections covers entire regional network of count stations</li><li>• Begins building regional count system with automated technology</li><li>• Automated technology provides summarized data via a modem. No data retrieval in field required</li></ul>	<ul style="list-style-type: none"><li>• Manual counts are labor intensive</li><li>• Short and temporary count periods</li><li>• Small number of automated locations</li></ul>

*Option 2*

- 30 twenty-four hour video counts
- Purchase and install automated counters at locations

PROS	CONS
<ul style="list-style-type: none"><li>• Longer count period than manual counts</li><li>• Begins building regional count system with automated technology</li><li>• Automated technology provides summarized data via a modem. No data retrieval in field required</li></ul>	<ul style="list-style-type: none"><li>• Fewer count locations than with manual approach</li><li>• Short and temporary count periods</li><li>• Small number of automated locations</li></ul>

*Option 3*

- 75 afternoon peak period (4-6PM) manual counts
- 50 twenty-four hour video counts

*Regional Framework for the Bike Count Project*

- Demand Analysis
- Investment Prioritization
- Congestion and air quality effects of replaced vehicle trips
- Cycling mode shares in key corridors
- Performance Measures
- Trend analysis (before-after studies; program and project evaluations)
- Improved safety measures

Jothan Samuelson explained that this data must feed into calibrating the new MAG model. Understanding travel patterns for cars using the screen line analysis will capture all traffic going from

one destination to another. The model helps staff understand not so much how many people are bicycling as much as travel info.

Michael Sanders asked how many screen lines are there? Jothan Samuelson responded that he doesn't know for sure but that currently there are dozens of screen lines and the new system will have smaller units.

Reed Kempton said that the committee will select locations and compare it to the baseline model. The locations are probably on arterials and off-street.

Brandon Forrey suggested that the cities add more dollars to expand the scope of the project.

Eric Iwersen noted that the committee needs to get detail on pathways and residential streets.

Brandon Forrey has concerns with day of the week and time of the year. Sherry Ryan said that most jurisdictions count on Tuesday, Wednesday and Thursday. It might be more reasonable to count bicyclists on a Saturday.

Margaret Boone asked if this committee wanted to count recreational riders on Saturday. Reed Kempton said we should be counting bikes when we know the most riders are regardless of where they are going or what kind of facility they are riding on.

Paul Ward noted that a tenet of Congestion Mitigation and Air Quality program is taking a vehicle off the road anytime. To compare to vehicles, count every day and then calibrate and compare to other days of the week.

Eric Iwersen noted that mornings in summer people would bike into work. Should we count bus boarding with bike? How about counting bicyclists on the corridors leading to Light Rail. Dawn Coomer said that a lot of information is available within the transit On-Board Survey.

Mark Smith asked if the data identified age groups. Sherry Ryan responded that one would have to conduct an intercept survey.

Reed Kempton asked for each city to identify the top five locations. Should we do this by geographic location or based on the size of the city? Then the committee can review the locations for geographic equity. Brandon Forrey suggested using few locations but do a more in depth study. Reed Kempton suggested that everyone submit the top 25 regional sites and then the committee will compare. Margaret Boone responded that she feels comfortable only giving sites for her jurisdiction.

Eric Iwersen suggested adding sites that would illustrate demand for future pathways. Reed Kempton said that freeway and river crossings should be added.

Brandon Forrey thinks this committee would want to choose locations where there are the most cyclists and also count on locations that have planned future facilities. Trends and longer time frames would give us more information than a snapshot of information. Reed Kempton explained that there would be

a number of places that could extrapolate data. Sherry Ryan said this would be a combination of base counts and short count locations.

Ken Miruyama asked if the committee is going to consider off-road facilities like the Consolidated Canal. Reed Kempton replied that this count will include off-road facilities. Ken Miruyama asked if intersections cameras have been used for bike counting. Reed Kempton explained that he turned one of the Scottsdale cameras on a pathway and recorded the count via a VCR.

Eric Iwersen asked if MAG does its own traffic data collection. Jothan Samuelson explained that MAG does its own count and each city has access to upload their own data to this site.

Monique de los rios Urban introduced herself and explained that she manages the MAG Performance Measurement Program. How will MAG use this data for performance measurement? When planning and evaluating future facilities, think about the criteria that would define each location such as high bike volumes. To build performance measures, keep some locations forever as a benchmark and then classify potential future corridors. The new transportation bill is performance based. Everything will be based on data and quantity. Everything will be quantifiable. Funding for programs will depend on proving their success.

Jim Hash asked Reed Kempton to clarify 6-10 core sites to count every year within the region. Reed Kempton responded that every member submit the number of locations they feel is important. Eric Iwersen suggested that this committee work with the other MAG staff departments.

6. MAG Bike Map

MAG staff presented the first draft of the 2012 MAG Regional Bikeways Map. Committee members were informed that the pdf of the document will be available for comment on the MAG website.

7. Request for Future Agenda Items

Members will have the opportunity to suggest future agenda topics.

8. Next Meetings

All meetings will be on the third Tuesday of the month in the Ironwood Room at 1:30 p.m., except where otherwise noted.

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October 16, 2012  
November 20, 2012  
December 18, 2012 (noon)