

MEETING MINUTES FROM THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

May 7, 2014

Maricopa Association of Governments Office, Ironwood Room  
302 North First Avenue  
Phoenix, Arizona

AGENCY MEMBERS

|                                    |                                      |
|------------------------------------|--------------------------------------|
| Jim Badowich, Avondale, Vice Chair | Julie Christoph, Mesa                |
| Craig Sharp, Buckeye               | * Dan Nissen, Peoria                 |
| Warren White, Chandler             | * Syd Anderson, Phoenix (St. Trans.) |
| Antonio Hernandez, El Mirage       | Jami Erickson, Phoenix (Water)       |
| * Wayne Costa, Florence            | Roy Herrington, Scottsdale (proxy)   |
| Yannick Mets, Gilbert (proxy)      | Dan Shaffer, Surprise (proxy)        |
| * Mark Ivanich, Glendale           | Tom Wilhite, Tempe, Chair            |
| Tom Vassalo, Goodyear              | * Harvey Estrada, Valley Metro       |
| Bob Herz, MCDOT                    | Gregory Arrington, Youngtown         |

ADVISORY MEMBERS

|                       |                                |
|-----------------------|--------------------------------|
| Jeff Benedict, ARPA   | Jeff Hearne, ARPA              |
| Arvid Veidmark, AZUCA | Peter Kandarlis, Independent   |
| * Mike Sanders, AZUCA | * Paul R. Nebeker, Independent |
| Adrian Green, AGC     | Jacob Rodriguez, SRP           |
| Brian Gallimore, AGC  |                                |

MAG ADMINISTRATIVE STAFF

Gordon Tyus

\* Members not attending or represented by proxy.

GUESTS/VISITORS

Jim Anderson, Olson Precast  
Mike Molina, Oldcastle Precast  
Stew Waller, Rinker

1. Call to Order

Chair Tom Wilhite called the meeting to order at 1:34 p.m. He welcomed new members to the committee: Tom Vassalo of Goodyear and Julie Christoph of Mesa. He also introduced two proxies attending the meeting: Yannick Mets representing Gilbert and Roy Herrington representing Scottsdale.

2. Call to the Audience

Chair Wilhite opened the call to the audience. No members of the audience requested to speak.

3. Approval of Minutes

The members reviewed the April 2, 2014 meeting minutes. Jim Badowich introduced a motion to accept the minutes as written. Jami Erickson seconded the motion. A voice vote of all ayes and no nays was recorded.

**Carry Forward 2013 Cases**

4. Case 13-15: Revisions to MAG Sections 101, 601, 603, 615 and 618 for Rigid and Flexible Pipe. Updates to Details 200-1 and 200-2.

*Update pipe installation requirements.* Warren White described a memo summarizing the work done on the case during the last working group meeting. The first part of the memo listed the default fill material for rigid pipe (Section 601) and flexible pipe (Section 603). MAG ABC would be the default for bedding as well as the haunching zone. No native fill is allowed in the haunching zone for flexible pipe. Final backfill requirements would be determined by the options available on Detail 200-1. Bob Herz requested the compaction requirement of Table 601-2 be made consistent with the compaction requirements in Section 301.3 (A) and (B).

The working group also discussed jetting and water consolidation options. Mr. White asked for further discussion on this issue. Mr. Herz said the county does not allow jetting in the roadway prism. Brian Gallimore said jetting is used in future subdivisions all the time. Jim Badowich said the working group decided not to ban it, but do want to limit it based on soil characteristics. Warren White said there can be problems with air voids left after the water drains. Peter Kandarlis said at SRP they did extensive testing and found that under best conditions you could only get about 90% compaction. He said that jetting can be beneficial around structures where it is difficult to get compaction via mechanical means.

Mr. Badowich asked for feedback on what limitations are needed in the spec. Tom Vassalo said it should be determined on a case-by-case basis. Mr. Kandarlis said SRP had problems with compaction around transformer poles which is why they went to CLSM. A problem with requiring CLSM is the additional cost would likely be opposed by homebuilders. Bob Herz said jetting can work in new subdivisions when both the trenched material and the backfill are well draining granular materials. Trenched utilities should all be installed when the road

subgrades are roughed in, after trench backfill has been tested the roadway subgrade is finished and compacted followed by installation and compaction of base courses before paving. Warren White asked if jetting of backfill should be determined by a geotechnical report. Brian Gallimore thought the jetting specs should remain so that when it was allowed, proper procedures would be followed. Bob Herz suggested extra testing could be required.

5. Case 13-21: Create a new Section 742 Pre Cast Manhole Bases. Add detail drawings for construction and installation. Update existing manhole details.

*Update specifications and details for pre-cast manhole bases and other corrections.* Craig Sharp handed out an updated version of Section 742 Precast Manhole Bases during the meeting, and asked for comments. Bob Herz provided a handout that outlined some of Maricopa County's comments. He said that 4" wide 24" diameter adjustment rings don't provide full bearing for 24" manhole frames which have a  $26\frac{3}{8}$ " inside diameter. He said the specs don't require a shear key joint as shown on the detail. Craig Sharp said he could place the old ring detail back on the drawing to help clarify.

Mr. Herz said that much of the language in 742 describes the construction of the precast manhole sections, and since it is more thorough, he suggested incorporating it into Section 625. Mr. Sharp said he would look into it, and since Case 13-22 updated Section 625 it may work. Mr. Herz asked why the casting types (Section 742.3) were included since construction is specified by ASTM C478 and AASHTO M199. He asked if it mattered how the sections and bases were constructed as long as the standards are met.

6. Case 13-22: Update Sections 625 and 775 to remove references to the use of bricks in manholes and remove references to manhole steps.

Craig Sharp said he received no comments since the last meeting. Bob Herz asked what happens when repairs to brick manholes are needed if specifications for bricks are removed. Mr. Sharp said that could be determined by special provisions to either make repairs or replace the brick manhole. Mr. Herz also noted a typo in 625.4.1 the word "angel" should be "angle".

## **New Cases for 2014**

7. Case 14-01: Miscellaneous Corrections.

- A. Change "transverse" to "longitudinal" in Section 321.8.2.
- B. No new corrections cases were introduced

8. Case 14-02: Revisions to Section 405 Monuments and Detail 120.

*Update specifications to match current details and requirements.* Mr. Herz said notes 2 and 3 were in conflict. Note 2 required use of Type B monument for subdivision corners and Note 3 also required the use of Type C monument for subdivision corners. To resolve the conflict he deleted Type C. Craig Sharp said Buckeye still uses Type C, but not for subdivision corners as

shown in the notes. Mr. Herz said he would put the detail for Type C back on the drawing, but adjust the notes to refer to Type B only for subdivision corners, in order to fix the conflict. He asked the committee to prepare to vote on the case at the next meeting.

9. Case 14-03: Updates to Guardrail Details.

*Make revisions to Section 415 and/or include guardrail details in MAG.* Bob Herz said there were no changes since the last meeting since Maricopa County hasn't revised their details yet.

10. Case 14-04: Revision to Detail 552 Concrete Cut-off Walls.

*Move cut-off walls away from roadway edge and delete design related notes.* Bob Herz said he requested to vote on the case at the last meeting, and asked if there were any questions. Seeing none he moved to approve Case 14-04 as presented. Craig Sharp seconded the motion. A roll call vote was taken. ***The case was approved: 12 yes, 0 no, 1 abstaining, 4 not present.***

11. Case 14-05: Revisions to Section 324 Portland Cement Concrete Pavement (PCCP).

*Use compressive rather than tensile strength tests, modernize and reorganize section as needed.* Jeff Hearne described the latest changes to the case. He said he took out the language in Section 324.2.3 on load transfer bars, since this would be determined by the type of system used. He also revised Section 324.4 Smoothness to remove specific requirements and leave it up to the agency. He said the version dated 4/3/14 in the packet is the most current, and asked members to review the case and prepare to vote on it at the next meeting.

12. Case 14-06: Revisions to Section 718 Preservative Seal for Asphalt Concrete.

*Update the specifications for the Type C preservative seal.* Jeff Benedict said he had no update for the meeting, but he did incorporate Chandler's notes and currently has it under review by Sam Haddenson of Western Refining. He plans to have a final version to review at the next Asphalt working group meeting.

13. Case 14-07: Revision to Section 735 Reinforced Concrete Pipe and Section 618 Storm Drain Construction.

*Add Elliptical and Arch Reinforced Concrete Pipe.* Bob Herz said he has not received any comments, and asked if there were any. He thought the case was pretty straightforward and proposed a potential vote on the case next month.

14. Case 14-08: New Section 607: Trenchless Installation of Smooth Wall Jacking Pipe.

*Included are revisions to Section 618: Storm Drain Construction.* Jim Badowich said there was not much discussion at the working group meeting. Peter Kandarlis asked if it is limited to reinforced concrete. Arvid Veidmark said that was the default, but other materials could be substituted by the agency. Mr. Wilhite asked if the case needed to be voted on at the same time as Warren White's case since it modifies Section 618. Mr. Tyus said that if there are no

conflicts it doesn't matter. If a case that is approved later changes the same specs it will supersede the previous changes. Mr. Badowich asked for comments and requested to vote on the case next month.

15. Case 14-09: Revision to Section 726 Concrete Curing Materials.

*Replace discontinued AASHTO references with current ASTM standards.* Bob Herz said no comments were received. Since the case only replaces outdated references with current ones, he proposed that it be scheduled for action at the next meeting.

16. Case 14-10: Include Language to Allow Use of Warm Mix Asphalt.

*Update Sections 321 and 710.* Jeff Benedict introduced a new case that would allow warm mix to be used. He said Adrian Green, who helped prepare the case, would provide more information. Mr. Green said not a whole lot was changed in order to keep it simple. He said that there were up to 38 different warm mix technologies available, so rather than try to incorporate specifications for so many options, language was added to allow contractors the option to use warm mix, and if they do, to follow the manufacturer's requirements for such things as the application temperature. He said suppliers in the Valley have had the capability to provide warm mix for about five years. Some benefits include faster paving, safety, and less pollution.

If using warm mix, the contractor would have to follow the technology manufacturer's requirements including additional testing. This was added as Note 11 in Section 710.3.1. The requirements would be part of the mix design ticket.

Brian Gallimore said usually warm mix is more expensive, but they may choose to use it for certain reasons. Adrian Green said the approved warm mixes are those on ADOT's approved material list since ADOT has already done the testing. Several members questioned whether the choice of warm mix should be left to the contractor and not the engineer. Mr. Wilhite asked if prior approval was required for bids. Mr. Green said it may depend on how it is used. Sometimes the additive is used to keep the asphalt more malleable, rather than to apply it at a lower temperature. Tom Wilhite asked if agencies would have problems with bid protests if contractors chose whether to use warm mix or not. Julie Christoph suggested striking "at the option of the contractor" from 321.2, and others agreed.

Bob Herz asked what warm mix technologies agencies may accept. Mr. Benedict said right now you would only get what ADOT approves. If it is not on the list, it's not allowed, and the agency has the final say on any mix. Some members questioned referencing ADOT for approved lists, but currently there are no options at either the East Valley or Phoenix labs. Jeff Benedict said the only major changes are the additives and the temperature it is applied, the asphalt mix still needs to meet all the same requirements.

Antonio Hernandez asked about the temperatures as it is laid down. Mr. Green said they have placed warm mix at temperatures as low as 190 degrees at his yard, but typically warm mix is referred to as anything applied at 250 degrees or less. Manufacturers are continuing to lower

temperature requirements. Craig Sharp asked if warm mix can increase the tender zone, referencing a project they did using a Superpave system. Mr. Green gave an example of Packard Road in Tempe that was repaved with warm mix. He said the road has a lot of traffic and it works and looks great.

Members also pointed at a few small corrections: a typo in Section 321.6 and changing “will” to “shall” in 321.5.

Jeff Benedict summarized the comments and changes to the case and said they would revise it and review it at the next working group meeting.

## 17. New and Potential Cases

Jeff Benedict said the Asphalt working group was revising Section 321 to clean up and refine it for use in permit work; however, it may not be ready as a case this year.

Jim Badowich said Jami Erickson and the water/sewer group is preparing a case to consolidate all the testing requirements into a new Section 611. This is needed to go along with the changes proposed in Case 13-15. Mr. Badowich said they also may have a new case for Horizontal Drilling and Boring (Section 607) coming.

Jeff Hearne said he has some minor changes to Section 725 that may become a case.

Brian Gallimore said there is a conflict in the rock collection techniques in Sections 301 and 310 that he plans to address.

## 18. Working Group Reports

Chair Wilhite asked for reports from the working group chairs.

### a. **Water/Sewer Issues Working Group**

Mr. Badowich said the group met on April 22<sup>nd</sup> and spent a lot of time on the manhole items, cases 13-21 and 22. They also spent a good amount of time reviewing Case 13-15. One of the items discussed at length was technical definitions vs. granular material. They recommend using MAG ABC since it meets the granular fill requirement, but may want to review it further. Warren White said many of Chandler’s supplements refer to ABC instead of granular fill. Peter Kandarlis remembered an earlier effort to clean up the term “granular material” in the specification.

Jim Badowich said they also looked at the draft Section 611 for testing.

The next meeting is scheduled for May 20<sup>th</sup> at 1:30 p.m. in the MAG office.

**b. Asphalt/Materials Working Groups**

Jeff Benedict said the group met on April 24<sup>th</sup>, where they discussed the warm mix case and incorporating MCDOT supplements in Section 321. Mr. Benedict said they discussed decorative asphalt stamping and may bring forward a case based on Gilbert's supplement.

Jeff Benedict said the next asphalt/materials working group meeting is planned for May 22<sup>nd</sup> at the ARPA office at noon, and lunch will be provided.

**c. Concrete Working Group**

The concrete working group followed the Asphalt/Materials working group meeting on April 24<sup>th</sup>. Mr. Hearne said they worked on revisions to *Section 725 Portland Cement Concrete*. The work on Section 324 is pretty much finished.

Mr. Hearne said the next Concrete working group meeting would follow the Asphalt/Materials group on May 22<sup>nd</sup>.

**d. Outside Right-of-Way Working Group**

Peter Kandar is he received only one response to the survey. He asked members to respond to the survey to help give him guidance on what sections to include and begin working on. Jim Badowich asked if blackflow prevention details were listed on the survey. Mr. Kadaris said no, but they could be written in.

**19. General Discussion**

Chair Wilhite asked for any general discussion items. Warren White asked members about the delivery of GPS data on pipes in the right-of-way. Chandler wants it for more accurate records of underground utilities compared to as-built documents. He thinks a standard for how the GPS data is provided (coordinate system, projections, etc.) would be helpful. Chandler incorporates the data into their CAD drawings. Jami Erickson said Phoenix is receiving GPS data, but it currently is not compatible or used in their CAD systems. Brian Gallimore suggested that putting a line item in the contract specifying the data format would be useful.

Tom Vassalo from Goodyear asked other agencies about their experience receiving mix designs in advance for prior approval rather than throughout the year, because due to staffing Goodyear are having a hard time responding to mix designs in time throughout the year. He said they would prefer to look at them once a year. Julie Christoph said Mesa had a problem getting a lot of samples. Jeff Benedict said suppliers will send every possible mix design if prior approval is required, so they aren't shut out, even if it is never used. He added there were five suppliers and each would send many samples. Peter Kandar is suggested requesting pre-approved mixes for those you expect to use rather than all possible mixes.

**20. Adjournment:**

Seeing no further business the meeting was adjourned at 3:37 p.m.