

2012 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS SUMMARY

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RECOMMENDATION SUMMARY OF THE MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

October 3, 2012

Detailed information about each case is provided on the 2012 Specs and Details Cases Under Consideration page on the MAG website.

<http://www.azmag.gov/Projects/Project.asp?CMSID=1055&CMSID2=4170>

Most case files include a cover memo listing the purpose of each case and proposed changes. The final version of the working cases are posted, which often include the strike-through changes and other discussion points.

Further discussion on the cases is available in the committee meeting minutes which are posted separately for each meeting. Links can be found on the Standard Specifications & Details Committee page.

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Final summary materials for review of the 2013 Revision to the 2012 Edition of the MAG Specifications and Details for Public Works Construction manual including detailed attendance and voting records are posted on the Specifications & Details Public Works Directors Review Deadline page.

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
	CARRY FORWARD CASES FROM 2011						
11-02	Case 11-02: Add an Asphalt Pavement Safety Edge option to Detail 201. Add subsections 321.8.8 and 321.8.9	MCDOT	Bob Herz	01/05/2011 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	A safety edge detail was added to Detail 201 ASPHALT PAVEMENT EDGE DETAILS. The case is based on recommendations provided by the Federal Highway Administration to make it safer for traffic to re-enter the road if they veer onto the shoulder. The safety edge is shown extending past the edge of the roadway at a 30 degree angle. Minor revisions to the other section views were made to make them consistent. The case also adds written specifications, Section 321.8.8 Thickened Edge and Section 321.8.9 Safety Edge. These specifications outline the construction and compaction requirements.						
11-03	Case 11-03: Replace cadmium plated bolts referenced in Section 610.13 with zinc plated bolts as described in ASTM-B633.	Peoria Water/Sewer WG	Paul Nebeker/ Jim Badowich	02/02/2011 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	Updated Section 610.13 COUPLINGS, JOINTS, CASKETS AND FLANGES part C) to make zinc coated bolts the default preference rather than cadmium plated due to cadmium's expense and environmental considerations. Cadmium was retained as an option along with stainless steel coating currently used by the City of Phoenix. The revised specification referred to the appropriate ASTM and AWWA standards. It also removed any reference to different sized pipes, and added specifications for T-head bolts used on mechanical joint connections.						
11-12	Case 11-12: Modifications to Regulatory Requirements, MAG 107.	OROW WG/ SRP	Peter Kandarlis	05/04/2011 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	This case simplified Section 107. It removed references to specific ARS statutes, some of which were outdated, and added a more general statement: <i>"The Contractor shall keep fully informed of, observe and comply with all Federal and State laws, County and City ordinances, regulations, codes and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any way affect the conduct of work."</i> This case also added Section 107.2 PERMITS to clarify the duties of the contractor in obtaining, maintaining and closing required permits.						
11-14	Case 11-14: Update Fire Hydrant Detail 360-1, and add Wet Barrel Option (360-2) and Details (360-3).	Water/Sewer WG/ Buckeye	Scott Zipprich	07/13/2011 07/17/2012	Approved 08/01/2012	11 0 0	Yes No Abstain
Summary	The existing fire hydrant detail (360) was removed and replaced with Detail 360-1 DRY BARREL FIRE HYDRANT INSTALLATION. A new Detail was added, Detail 360-2 WET BARREL FIRE HYDRANT INSTALLATION, to allow this type of hydrant. Detail 360-3 added details for connections, offset fittings and concrete pad construction. Reference to "COREY TYPE" was removed from the details, and mechanical joints were allowed as an option to thrust blocks. These details were thoroughly reviewed by the water/sewer working group and the main committee. During the final review, general notes were clarified.						

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
11-16	Case 11-16: Modify Section 415: Steel Flexible Metal Guardrail.	OROW WG/ SRP	Peter Kandarlis	07/13/2011 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>This section was revised to match Maricopa County’s supplement. Since the out-of-date guardrail details were removed in the 2012 edition, Section 415 was updated to refer to Maricopa County guardrail details, which in turn were based on those from ADOT. Possible addition of the details into MAG was discussed, and may be a future case after the county has finished making their revisions. It was decided that end treatments would be determined by the agency, since there are many variations. There was also discussion about temporary end treatments used during construction, but rather than referencing specific standards, they were left to be specified by the engineer.</p>						
11-18	Case 11-18: Update Section 350: Removal of Existing Improvements.	OROW WG/ SRP	Peter Kandarlis	07/13/2011 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>This section was updated to clarify when and how utilities could be abandoned in place. It also provided language for the proper method of removing and recording utility removal. The major revision to Section 350.2.1 Utilities included this language:</p> <p><i>A utility may be abandoned in place below a new major structure that is part of the work only if approved by the Agency and solidly filled with grout using methods approved by the Agency. All abandoned utilities to remain and the approved abandonment method shall be noted on the installation record drawings.</i></p> <p><i>Utilities to be removed by the Contractor shall be disconnected and taken out in accordance with the requirements of the utility owner to the limits shown on the plans. Utility removal shall not be performed until a release has been obtained from the utility stating that their respective service connection and appurtenant equipment have been disconnected, removed or sealed and plugged in a safe manner.</i></p> <p><i>The Engineer shall be notified when utilities are encountered that are not shown on the plans.</i></p> <p>There were revisions to the backfill and disposal specifications and Section 350.4 PAYMENT was also clarified to read: <i>Payment for removals will be made at the unit proposal price for each removal item, which price shall be full compensation for the item complete, as described herein or on the plans.</i></p>						
11-21	Case 11-21: Add new Section 623: Special Bedding for Mainline Storm Drain Pipe.	Phoenix	Syd Anderson	07/13/2011 01/04/2012	Withdrawn 07/11/2012	0 0 0	Yes No Abstain
Summary	<p>The scope relating to this case expanded during discussion at the water/sewer working group meetings to include various methods of trenching and backfilling for both flexible and rigid pipe types. The working group thought the proposed new section would be better incorporated as one possible option for backfill as part of a larger revision to the trenching and pipe installation specifications. The case was withdrawn for additional revision by the working group, with possible reintroduction in 2013.</p>						

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11-30	Case 11-30: Update Section 702: Base Material. Moved all ABC material to Section 310. Revise Section 310: Untreated Base Course. Revise for current standards. Update all references to Section 702. (Combined with previous Case 11-35.)	AGC/ Materials WG	Brian Gallimore	07/13/2011 03/07/2012	Approved 03/07/2012	12 0 0	Yes No Abstain
Summary	<p>The purpose of this case was to simplify base material requirements with physical properties shown in a single table, delete information that was redundant to Section 701 (redefining general aggregate requirements) and remove language that was vague and cannot be enforced through objective tests. Major changes are summarized below:</p> <p>(a) Deleted references to specific aggregate materials such as decomposed granite, slag, etc., as these should be covered by Section 701 requirements.</p> <p>(b) Added functional descriptions for ABC and Select Material.</p> <p>(c) Consolidated all material requirements into Table 702-1. This includes PI, fractured face and LA abrasion testing.</p> <p>(d) Fractured face for ABC was changed from 50% to 30% to match ADOT requirements. Fractured Face was left at existing 50% - moved from 701.2.1</p> <p>(e) Changed from 1-1/4" sieve to 1" sieve in Table 702-1 as plants do not have the capability to separate at 1-1/4". Modified the gradation requirement for the 1" sieve to meet the same gradation as before.</p> <p>(f) Included a referee test for aggregates that exceed a PI of 5. A white paper was prepared by the Materials Working Group to give the rational for using an R-value of 70 if the PI is too high. Minor updates to the tables in 310 relating to PI were also made.</p> <p>Additional changes to Section 702 and 310 were made to incorporate recycled materials in a separate case. (See Case 12-11.)</p>						

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
	NEW CASES FOR 2012						
12-01	Case 12-01: Miscellaneous Corrections A. Section 108 typographic errors B. Remove space in Section 108.9 C. Correct references in Detail 160 D. Correct typo in Section 610.3	Goodyear/ Mesa	Troy Tobaisson/ Bob Draper/ Warren White	02/01/2012 05/02/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	Several typographic errors were corrected including: revising the spelling of Warantee to Warranty in several parts of Section 108, as well as fixing typographic errors in 108.4 and 108.9. A reference to Section 722 was corrected to 772 in Detail 160. Finally the word 'project' was changed to 'product' in Section 610.3.						
12-02	Case 12-02: Modify Section 710 Asphalt Concrete to include low traffic gyration levels.	ARPA/ Asphalt WG	Jeff Benedict	02/01/2012 03/12/2012	Approved 05/02/2012	11 0 1	Yes No Abstain
Summary	MAG 710 was updated to include a provision for utilization of gyratory asphalt mixes in low traffic (residential) situations. Additionally, the test procedure for Tensile Strength Ratio (TSR) testing was changed from AASHTO T 283 to ASTM D4867. Other revisions included: a) Language was added to Section 710.3.1(5) stating that either gyratory or Marshall mix design may be used for both high and low traffic conditions. b) The reference to AASHTO T 283 was changed to ASTM D 4867 in Section 710.3.1(6). c) The test procedure for Tensile Strength Ratio and Dry Tensile Strength in Tables 710-3 and 710-4 was changed from AASHTO T 283 to ASTM D4867. A small formatting change was made to the bottom of Table 710-4 to evenly distribute the column spacing. d) Language was added in Section 710.3.2.2 to describe how the specimens are to be compacted and then volumetrics for other gyration levels calculated. e) The test procedure for moisture sensitivity testing in Section 710.3.2.3 was changed from AASHTO T 283 to ASTM D4867. The comment regarding the freeze/thaw cycle was removed since ASTM D4867 does not include a freeze/thaw cycle.						
12-03	Case 12-03: Revisions to Details 260-2: Driveway Entrances	MCDOT	Bob Herz	02/01/2012 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	Detail 250-2 was updated to meet new accessibility requirements that recommend 4' minimum wide sidewalks widths. To reduce the total size and amount of concrete, the sidewalk pathway was designed to keep a minimum 4' width around the driveway entrance. The expansion joints had to move 1' away from the edge of the warped curb in order to remain perpendicular to the curb. Initially there was some confusion about the allowable slope since it showed 2% on the plan view and 1 -1/2% on the detail. To clarify the note was changed to SLOPE 1.5% DESIRABLE, 2% MAXIMUM. To make sure there was adequate run-off note 14 was added stating: <i>Elevation at top of driveway ramp shall be equal to or higher than normal curb elevation.</i>						

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12-04	Case 12-04: Revisions to Section 317: Asphalt Milling	ARPA/ Asphalt WG	Jeff Benedict	02/28/2012 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>This case adds an option for using ½ the tack coat for dust control. The following was added to Section 317.2 CONSTRUCTION REQUIREMENTS:</p> <p><i>The work shall result in a clean milled surface to the specified depth for the area indicated by the construction documents including the areas immediately around and next to any individual hazard within the area to be milled. The edge of milled area shall form a straight clean cut line.</i></p> <p><i>For milled surfaces on major streets (arterial and collector streets) that will be subject to traffic prior to overlay, a tack coat per Section 329 may when authorized by the Engineer be applied to the milled surface as a dust control measure. The tack coat shall be applied after sweeping and prior to allowing traffic on the milled surface. The tack coat application rate shall be half of the prescribed tack rate or contract amount or an alternate rate as prescribed by the Engineer. The Contractor shall be responsible for clean-up of any tack coat tracking that occurs.</i></p> <p>The case also noted that “No additional payment for the application of dust control tack coat shall be made.”</p>						
12-05	Case 12-05: Revisions to Section 711: Asphalt Paving (Table 711-1)	ARPA/ Asphalt WG	Jeff Benedict	04/04/2012 04/09/2012	Approved 07/11/2012	12 0 0	Yes No Abstain
Summary	<p>This case included modifications to Table 711-1. It fixed a typo in the math nomenclature on the original binder section. PG64-16 was added since it is used extensively as a both regular binder and asphalt base for asphalt rubber. PG 82 grade was deleted because has never been used and is not recommended for use. The PG 76-16 is included because ADOT uses it in desert climates, but it is not expected to be used regularly.</p> <p>All of the AASHTO tests were changed to ASTM which also eliminates the temporary test methods. The direct tension test was removed because although it is still used for modified asphalts, the standard Bending Beam Rheometer is used to determine low temperature qualities in neat paving asphalt. The direct tension can be specified for modified asphalt tests.</p>						
12-06	Case 12-06: New Detail: Modified ADA Compliant Alley Entrance	Chandler	Warren White	04/04/2012 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>DETAIL 260: ALLEY ENTRANCE was removed in the 2012 edition since it did not meet ADA requirements for accessibility. This case reintroduces an alley entrance detail that does. It has a 5' wide depressed sidewalk at the alley entrance that allows a 2% maximum cross slope. Two plan versions are shown, one with a retaining curb and one without. The surfacing material behind the sidewalk in the alley entrance is to be shown on the plans. To make it consistent with other details, the concrete thickness in Section A-A is shown as 9". Final discussion included correcting and clarifying notes, and adding a note (8) for a control joint for the back curb if used.</p>						

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12-07	Case 12-07: Revisions to Section 332.6: Protection of Uncured Surface	Phoenix	Jami Erikson	04/04/2012 07/02/2012	Approved 08/01/2012	10 0 1	Yes No Abstain
Summary	SECTION 332.6 PROTECTION OF UNCURED SURFACE: was changed from: “Adequate methods such as barricades, flagmen, pilot cars, etc., shall be used to protect the uncured slurry surface from all types of traffic.” to read, “Adequate means shall be provided by the Contractor to protect the uncured product. Any damage done to the product shall be repaired at the Contractor’s expense.” Rather than specifying how it should be done, this allows the contractor to determine the best method to protect the uncured project and makes the contractor responsible for any damage.						
12-08	Case 12-08: Revisions to Section 611: Disinfecting Water Mains – Addition of Refreshing Plans	Phoenix	Jami Erikson	04/04/2012	Withdrawn 08/01/2012	0 0 0	Yes No Abstain
Summary	Citing the need for additional research in-house, and possible discussion at the water/sewer working group, this case was withdrawn for consideration.						
12-09	Case 12-09: ASTM Updates A. Section 770: Structural Steel	OROW WG/ SRP	Peter Kandaris	04/04/2012	Approved 07/11/2012	12 0 0	Yes No Abstain
Summary	<p>Section 770.2 references various ASTM steel standards that have been removed or replaced. This subsection was updated and simplified to be more consistent with general steel standards. The 2nd and 3rd paragraphs below were updated with the correct references. Section 770.2 now reads as follows:</p> <p>770.2 STRUCTURAL STEEL:</p> <p><i>Stock Materials: The Contractor shall select the material he wishes to use from stock. The Contractor shall furnish 3 certified mill reports for each of the heat numbers. Two samples shall be taken by a representative of the Engineer from each heat number, one for the tension test and one for the cold bend test. If the heat numbers cannot be identified, the representative of the Engineer shall select random test specimens from the unidentifiable heats. The number of such test specimens shall be at the discretion of the Engineer. The cost of all tests on stock material shall be borne by the Contractor.</i></p> <p><i>High Strength Low-Alloy Structural Steel: The material shall conform to the requirements of ASTM A572 as specified in the special provisions.</i></p> <p><i>General Purpose Structural Steel: Structural steel shall conform to the requirements of ASTM A36 with a minimum of 0.2 percent copper.</i></p>						
12-10	Case 12-10: Proposed revision to Section 505.6.3 Bridge Deck Joint Assemblies.	MCDOT	Bob Herz	06/06/2012 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>The purpose of the revision to Section 505.6.3 Bridge Deck Joint Assemblies was to eliminate the MCDOT supplement to this section by incorporating the requirement into the MAG specification, specifically by updating the welding requirements. A part (7) was added to 505.6.3.3 Construction Requirements to read: (7) <i>Welding: All welding and inspection of welding for structural steel shall be performed in accordance with the requirements of the latest revision of the AASHTO/AWS D1.5M/D1.5 Bridge Welding Code. The use of electro-slag welding process on structural steel will not be permitted.</i></p> <p>Other minor corrections were made including deleting references to deck joint assemblies for pre-tensioned and post-tensioned concrete structures, and a reference to cadmium plating.</p>						

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12-11 A	Case 12-11: Use of Reclaimed/Recycled Materials A. Sections 701, 702, 310 (Base Materials)	Materials, Asphalt & Concrete WG	Brian Gallimore	07/02/2012 09/05/2012	Approved 09/05/2012	10 0 1	Yes No Abstain
Summary	<p>The case incorporated the use of reclaimed materials by updating several sections. Due to the size and complexity of the case it was broken into the three parts: A, B and C as shown below. A summary of the changes follows.</p> <p>PURPOSE: Addresses the use of reclaimed and/or recycled materials along with proper reference adjustments to their respective corresponding sections.</p> <p>REVISIONS:</p> <p>Section 701: 1) Added Section 701.4 “RECLAIMED CONCRETE MATERIAL (RCM); a definition and general statement to describe the product – with reference to AASHTO M 319. The exclusion of RCM in the use of Portland Cement Concrete without approval of the Engineer was also included. 2) Added Section 701.5 “RECLAIMED ASPHALT PAVEMENT (RAP); a definition and general statement to describe the product. Again, the exclusion RAP in the use of Portland Cement Concrete without approval of the Engineer was also included.</p> <p>Section 702: 1) Added additional material descriptions to include reclaimed materials to Section 702.1 “GENERAL”. 2) Revised primary applications for Select material in 701.2.</p> <p>Section 725: 1) Added exclusion of RCM and RAP in the use of Portland Cement Concrete without approval of the Engineer to Section 725.3.</p> <p>Section 310: 1) In Section 310.3 “COMPACTION” added the note to AASHTO T-99 regarding the proper use of method “C” or “D” as required based upon the gradation of the material.</p>						
12-11 B	Case 12-11: Use of Reclaimed/Recycled Materials B. Sections 709, 710, 719 (Asphalt/RAP)	Materials, Asphalt & Concrete WG	Brian Gallimore	07/02/2012 09/05/2012	Approved 09/05/2012	10 0 1	Yes No Abstain
Summary	<p>PURPOSE: Addresses the incorporation of Reclaimed Asphalt Pavement (RAP) into Asphalt Concrete along with proper reference adjustments to their respective corresponding sections.</p> <p>REVISIONS:</p> <p>Section 709 and 719: Removed these in their entirety.</p> <p>Section 710: 1) NOTE: As the starting point for this revision, the most current Section 710 that was approved by the Standards Committee on May 2, 2012 was used. 2) Added a new Section 710.2.3 “Reclaimed Asphalt Pavement (RAP)”. This section references Section 701.5 regarding material constituents and provides the appropriate methods for the incorporation of RAP into an asphalt mix design. References used here are: NAPA IS123, COP SHIA Specification for P-403, and the NCAT Third Edition HMA Materials Mixture Design and Construction. 3) Renumbered existing specifications as needed to include new language for inclusion of RAP and RAP binder in the mix design. 4) Corrected two spelling errors in the third paragraph of 710.3.2.2 “Gyratory Mix Design”, by adding an “r” to the make the word “Traffic.” Also corrected typographic errors in table 710-1, and changed the word “Utilized” to “when used” or “used.”</p>						

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12-11 C	Case 12-11: Use of Reclaimed/Recycled Materials C. Section 728 (CLSM)	Materials, Asphalt & Concrete WG	Brian Gallimore	07/02/2012 09/05/2012	Approved 09/05/2012	11 0 0	Yes No Abstain
Summary	<p>PURPOSE: Addresses the use of alternate or reclaimed materials along with proper reference adjustments to their respective corresponding sections.</p> <p>REVISIONS:</p> <p>Section 728: 1) Added the option of alternate materials, ABC (per City of Phoenix Supplements) or Reclaimed Concrete Materials (RCM) to Section 728.2 “Materials” – with Engineer approval.</p> <p>2) Added additional clarification to Note 2 or Table 728-1 regarding the prohibition of “structural” concrete or “grout” in lieu of CSLM (per City of Phoenix Supplements).</p>						
12-12	Case 12-12: New Section 739 – Steel Reinforced Polyethylene Pipe (SRPE)	Scottsdale	Rod Ramos	07/11/2012 08/09/2012	Carry forward to 2013	0 0 0	Yes No Abstain
Summary	<p>This case was introduced to introduce Steel Reinforced Polyethylene Pipe as an approved material. The new section is based on a similar Section: 738 High Density Polyethylene Pipe. Some committee members wanted installation requirements included and separate from the materials specification. Since the case was late in being introduced, the sponsor proposed to carry the case forward to 2013 to allow additional work as part of the water/sewer working group review of pipe trench/installation specifications.</p>						