

MAC MINUTES

Region One

January 14, 2015


Lookout Mountain Conference Room
425 Corporate Circle
Golden, Colorado

DATE: January 23, 2015
 FROM: Bill Schiebel, Materials and Geotechnical Branch Manager
 TO: MAC Members
 SUBJECT: MAC Meeting Minutes – 01/14/2015
 REFERENCE: <http://internal.dot.state.co.us/MAC/>

ATTENDEES:

Bill Schiebel	Mat' l & Geotechnical Branch Manager	Masoud Ghaeli	Region 1a – RME
Michael Stanford	Asphalt Program Manager	Jan Chang	Region 1b – RME
Eric Prieve	Concrete / Etc. Program Manager	Craig Wieden	Region 2 – RME
David B. Thomas	Soils & Geotech Program Manager	Jeremy Lucero	Region 3 – RME
Jay Goldbaum	Pavement Design Program Manager	Gary DeWitt	Region 4 – RME
Stephen Henry	Pavement Management Program Manager	Absent	Region 5 – RME
David Kotzer	MAC Secretary	Bob Mero	Region 1a – Ass't RME
Roberto DeDios	DTD Research Engineer	Absent	Region 1b – Ass't RME
Larry Brinck	Stds & Specs. Engineer	Absent	Region 2 – Ass't RME
Kevin Ryburn	Area Engineer	Absent	Region 3 – Ass't RME
Absent	Staff Maintenance Engineer	Absent	Region 4 – Ass't RME
Donna Harmelink	FHWA	Vacant	Region 5 – Ass't RME
Johnny Lam	Asphalt Prog.	Laura Conroy	Region 1a – Pavement Engr.
Vincent Battista	Asphalt Prog.	Kevin Moore	Region 1b – Pavement Engr.
Brandon Joy	Concrete / Etc. Engr.		
Christopher Russell	Soils & Geotech Prog.		
Melody Perkins	Pavement Design Prog.		
Kyle Brooks	Pavement Design, LIMS		

Masoud Ghaeli, as the Facilitator, brought the meeting to order at 8:10 a.m. Self-introductions were made.

Note: The following symbol  within the Minutes indicates that documents had been distributed for the referenced topics.

Minutes approval: A Motion was made by Masoud Ghaeli, with a Second by Gary DeWitt, to approve the Minutes of the MAC Meeting held on November 13, 2014. Vote: 8 to 0 in Favor.

Agenda approval: One topic was added to the agenda and none were deleted.

MAC E-Vote Summaries:

1. Project Special Provision – Revision of Section 403 - HMA. This was Old Business #2 at the November MAC. Craig Wieden solicited an e-vote on November 18th. Vote: 9 to 0 in Favor.

MAC Chairman’s Statement: Bill Schiebel discussed the following topics:

- Bill donated most of his allotted time so that the introduction of the new Executive Director, Shailen Bhatt, by Don Hunt from 9:30 to 9:54 could be heard.
- The RMEs who facilitate and host our 7 – 8 hour MAC Meetings will be able to put in for \$50 official function reimbursement through 2015.
- Bill discussed the AC Cost Adjustment this paving season with oil prices moving downward and the still unknown impact on the cost of HMA. The issue being the money in the force accounts and the availability of the funds.

Acknowledgements:

1. No task force effort was completed at the November 2014 MAC. Bill, as the MAC Chairman, acknowledged John Kacinski’s contribution to the MAC since 8-31-2009 and his contribution to CDOT for almost 30 years. His knowledge of specifications and their project applicability was of great value.

TASK FORCE BUSINESS

Note 1: The Task Force Summary Sheets Part I & II were distributed with the MAC Agenda.

Note 2: There are currently 10 active Task Forces. There was an informational-update on four Task Force/Group efforts.

1. **[TF 2012-03]** Crack Seal & Fill BMP (Stanford). Informational Update: [Updated last in the May 2014 MAC.] The research report was used to develop the Best Practices Guide for Crack Seal and Fill. The Guide has been drafted and is out for review by the Task Force Members. Tyler Weldon presented it to the Maintenance Superintendents the previous week. Comments are due back by January 30, 2015. When implemented it will replace the Schaffer Memo.
2. **[TF 2013-02]** CP-L 5145, Discrepancies with the 401 RAP Specification (Stanford). Informational Update: [Established at the November 2013 MAC.] Final Task Force Membership was set at the October 2014 AIF. Kickoff Meeting was November 18, 2014.

They also met on January 13, 2015. Issues and recommendations will be presented to the February AIF.

3. **[TF 2014-03]** Thin Lift Surface Treatments (Stanford). Informational Update: [Updated last in the November 2014 MAC.] The Task Force met June 26, 2014 and again September 30, 2014. Proposed revisions to current specifications are in progress. The industry co-chair is currently reviewing these specification revisions.
4. **[TF 2014-05]** HMA Mix Designs (Stanford). Informational Update: [Established at the November 2014 MAC.] The Task Force met on November 18, 2014 and again on December 16, 2014. Currently looking at pavements that show early signs of distress and investigating their mix properties. Every RME has provided 2 or 3 mixes but we need much more data on poorly performing pavements. Masoud Ghaeli asked Stephen Henry if Pavement Management can provide this type of data from the past five years. Stephen said it is available with the correct search query. Next Task Force Meeting is scheduled for the morning of February 24, 2015.
5. **[TF 2009-03]** Optimizing Concrete Mixtures (Prieve). Informational Update: [Updated last at the September 2014 MAC.] The Pilot Specification has been published. Eric queried the Regions on its use. All of the RMEs stated that as of now it has not been used. Region 3 appears to be an ideal candidate with concrete mixes that may require more than 30% fly ash to mitigate ASR.
6. **[TF 2014-02]** Evaluation of Low Flexural Strength Results (Prieve). No Update: [Updated last at the November 2014 MAC.]
7. **[TF 2014-04]** Use of Maturity Meters for Acceptance (Prieve). No Verbal Update: [Established at the September 2014 MAC.] Task Force held its kick-off meeting on October 31st. Task force will first focus on replacing information cylinders with maturity meters everywhere info cylinders are allowed. A survey was sent out to the CP Tech Center states to see who uses maturity and for what purposes. Survey results will be discussed at next meeting which will be scheduled soon.
8. **[TF 2012-04]** In-Situ Soil Stabilization (Goldbaum/Thomas). Informational Update: [Updated last at the January 2014 MAC.] The task force met on January 14, 2014 and again on January 12, 2015 to introduce David Thomas as the new Chair. They discussed the various tests that could be used to develop an end result specification. Jay stated that they are looking for a project big enough to perform comparative analysis between grout and foam injection. David stated that the Drill Crew can perform the initial investigation but it will be more time consuming. Non-Destructive Testing through a geo-physics survey would be faster, but more expensive because of the utilization of consultants. Chris Russell asked if any of the Regions have used the Hayward Baker grout injection method. Craig Weiden stated that it can work depending on the situation; however, the extra weight can exasperate settlement problems. David said that we can either treat the surface manifestations (problems may reappear) or we can treat the root cause (solve the soil issue). Jay said that we should develop an end-result specification so that neither

process is stipulated. The issue is finding a test section and determining how to practically measure performance.

9. [TF 1999-02] Feasibility Study of Long-Term Warranties (Goldbaum). No Verbal Update: [Updated last at the May 2014 MAC.] The anticipated date of the final report is spring 2016. There will be an annual update at the May MAC.
10. [TF 2007-03] Laboratory Information Management System, Part 3 (Goldbaum/Brooks). Informational Update: [Updated last at the November 2014 MAC.] With John Kacinski's retirement his LIMS duties will be absorbed by Kyle. Kyle stated that work is being done to advance the software from LIMS 3.1.1 to 3.1.5. Concrete mix designs will now be able to be viewed through CARS. Voids 03 and Asphalt 03 are still being worked on and will be completed soon. It is about 80% done. Jay stated that the Regions will need to continue using the old process for a while. There will be training presented in Grand Junction in the first week of February. We still need to document the procedure for finaling a project through LIMS. Jay stated that Tony Hernandez can't access a project until it has been awarded which means that no #250 will be available at the Pre-Construction Meeting.



MAC Endorsed Experimental Features

The Procedural Directive stipulates an annual update and the submittal of a Final Report to the MAC. Written report and oral update required.

1. [EF 2009-02] Effectiveness of Diamond Grinding as a Final Wearing Surface for New PCCP (Wieden). Craig will present the final report at a MAC once the CDOT Skid Trailer is operational. Presentation TBD.
2. [EF 2011-01] WMA Using Maxam Technology (Wieden). Craig provided an update at the September MAC and will present the final report at the March MAC.

OLD BUSINESS

Asphalt

1. Project Special Provision - Revision of Section 403 - Hot Mix Asphalt (Stanford). Mike stated that this topic from the November MAC moved forward to the Spec Committee and was issued on December 24th. 
2. Revision of Section 105 and 106 (Stanford). Mike stated that this topic from the November MAC moved forward to the Spec Committee and will be issued on January 15th. 
3. CDOT Region Test Results versus Central Lab Test Results on 10K Samples (Wieden/Stanford/Lam). This topic was discussed at the September MAC and the

November 2014 MAC. The Gyrotory Compactor Mini Study has been completed. The data will be used to evaluate testing across all CDOT labs to ensure continued consistent procedures and test results for the Central Lab and all Region labs. The FPOG will discuss this at their next meeting. 📄

4. CP 43 Revision (Stanford / Lam). This topic was discussed at the November 2014 MAC, as well as at the December 2014 AIF. The AIF concurred with having the constant mass defined as when the loss in mass between two consecutive measurements is equal to 0.00%. Michael Stanford made a Motion, with a Second by Eric Prieve, to accept the change to CP 43 as submitted. Vote: 8 to 0 in Favor. 📄
5. CP-L 5115 Revisions (Stanford / Lam). This topic was discussed at the November 2014 MAC, as well as at the December 2014 AIF. Proposed changes to CP-L 5115 to make the gyrotory compactor less specific. AASHTO T 312 was used as a reference for the revisions. The AIF concurred with the revisions. The MAC discussion revolved around the applicability of this less specific version of the procedure to all potential compactors that could be available in the future. Eric Prieve suggested that it be revised to state that the compactor be in conformance with AASHTO T 312 but must utilize a 4" mold. The vote was postponed until new language can be developed and reviewed by the FPOG and the AIF. 📄
6. CP-L 5120 Sections 6.1.8 & 6.2.11 (Stanford / Lam). This topic was discussed at the November 2014 MAC, but was tabled for further discussion until the January 2015 MAC. The FPOG voted 4 to 2 in favor of revising Sections 6.1.8 & 6.2.11. The AIF concurred with the revisions. Clarification is on the re-testing of the AC correction factors and whether the test stipulates placing two samples in the same oven or utilizing two ovens with one sample placed in each. New supporting documents has surfaced in support of having two AC Correction Factors for one Ignition Furnace. The supporting documents includes: A national survey that Tim Aschenbrener conducted about pending changes to the ignition furnace method that requires a calibration for each oven and an excerpt from AASHTO T 308 stating that each ignition furnace will have its own unique asphalt correction factor. The attached revised CP-L 5120 incorporate this newly found AASHTO verbiage into the document. Michael Stanford made a Motion, with a Second by Masoud Ghaeli, to accept the revision as presented. Vote: 8 to 0 in Favor. 10 Minutes. 📄

CP-L 5120 Proposed Note 11 (revised) (Stanford / Lam). The FPOG voted 6 to 0 in favor of the revised Note 11 (which used to be Note 9 prior to the inclusion of the new Note 4 and Note 5). Clarification is on the aggregate correction factor in RAP mixes. Upon discussion the MAC decided that the information in Note 11 should be part of the procedure and not a note, and that the placement of this information should be after the first sentence in Subsection 12.3.6. Michael Stanford made a Motion, with a Second by Craig Wieden, to accept the revision of Subsection 12.3.6 with the deletion of the proposed Note 11 as revised by the MAC. Vote: 8 to 0 in Favor. 📄

7. Revision to CP 59 (Chang). Based on the information received at the November MAC Jan reworked CP 59 and presented it to the December AIF. The issues are:
- CP 59, current
 - (a) WMA Approval
 - (b) Requirements separated by absorption of less than or equal to 1.3% and absorption of greater than 1.3%
 - (c) Issues
 - CP 59, proposed
 - (a) Separate approval at Region / Project level
 - (b) Split requirements by WMA technology
 - (c) Clarify what is required

Jan reviewed first a copy of CP 59 where he had comments on the current text. One of his concerns is that the procedure focuses on technology approval with no emphasis on Region / project level approval. Jan next reviewed a copy of CP 59 in which he added or removed text. Subsection 4.2.3 was added to address concerns. It is entitled Contractor – Submittal Considerations for WMA Use at Region / Project Level. This included new text and some that was removed from the previous subsection. Subsection 6.8 was added and 7.1 was revised. Discussion followed as how to incorporate changes to CP 59 that would benefit Region 1 in which the current procedure does not work well without hindering Region 3 and Region 4 that have few issues with the process. Jan asked for comments by January 23rd so that he can merge them into a new document, followed possibly by another review period prior to it being forwarded to CAPA. 📄

Concrete / Physical Prop. & Soils Labs / Etc.

No Topics.

Soils & Geotech

No Topics.

Pavement

- 8 Scoping of Low Volume Roads (Goldbaum/Perkins). The task group met on September 19th and distributed a matrix of rehabilitation treatments along with definitions of the treatments. Jay reviewed Table 2, Recommended Criteria for Determining Whether to Crack Seal or Crack Fill. He then reviewed Table 3, Summary of Treatments. To obtain the most value out of Table 4, Rehabilitation Techniques Benefits and Applications a very good preliminary survey needs to be conducted. Jay Goldbaum made a Motion, with a Second by Michael Stanford, to accept the document as presented. Vote: 8 to 0 in Favor. Gary DeWitt suggested that it be entitled Low Volume Road Guidelines. 📄
9. Use of CDOT Discount Rate through the PPP (Goldbaum). A meeting was held with HPTE and we will update the MAC on the future of pavement type selection for a Public Private Partnership (PPP). After an industry meeting, we would like to repeal the use of a variable discount rate when a PPP is being used. Industry disagreed with its use on toll

lanes and that the pavement type should be left up to the tolling enterprise. If the enterprise designs and maintains the road then all we should be concerned with is performance. We will develop a list of performance criteria for both types of pavement. The general purpose lanes are CDOT's concern. An issue is mixing lanes of concrete and asphalt, and ensuring that they are tied. Jan Chang indicated his concern with drainage safety and maintaining the same thickness. Jay Goldbaum made a Motion, with a Second by Eric Prieve, to remove any of the discount rate information for PPP in the Pavement Design Manual. Vote: 8 to 0 in Favor.

10. PCCP Texturing Specification (Prieve /Goldbaum). Eric stated that we should make the pilot specification a Standard Special Provision. This was discussed at the last ACPA Co-Op meeting and consensus was obtained to make it a Standard. There was discussion on the nap on certain astro turf not being thick enough to get proper texture depth. This has been a safety issue in the past between a turf drag and tining, with some of the concerns being associated with the abilities of different contractors. Eric Prieve made a Motion, with a Second by Masoud Ghaeli, to make this a Standard Special Provision. Vote: 8 to 0 in Favor. 📄

Programs

No Topics.

EDUCATION AND RESEARCH

1. Skid Testing Hardware Upgrade (Khan/DeDios). Roberto discussed the necessity of the skid truck hardware upgrade and its cost effectiveness. He queried the Regions on their need for pavement skid testing this year. Gary DeWitt stated that it was worth more than \$40,000 on just one project that they had in Region 4, and they have a couple. Craig Wieden has also been waiting for skid testing on some Region 2 PCCP projects that are being monitored as experimental features. Eric Prieve said that his research indicated that it costs approximately \$2,500 per day to purchase testing services plus a mobilization cost that can range from \$3,000 to \$6,000 with the closest device being in Oklahoma and then the next one in Texas. 📄
2. Pooled Fund Study (Khan/DeDios). Roberto is looking for assistance and guidance in identifying two field projects for a Pooled Fund study. As per the proposal, each field project needs to include a conventional mixture and a mixture containing high percentages of RAP (>25%) and/or RAS materials. Bill Schiebel stated that a specification change limited binder replacement to a maximum of 23%. Jeremy Lucero stated that from Eagle to Wolcott there were a couple of sections. One was WMA with 30% RAP and another was without WMA still with the 30% RAP. It was suggested that they look at Scott Schuler's RAS study in Boulder County. CDOT had a RAS project on US 36 investigated by Dr. Chris Williams of Iowa State University. It has already been removed and replaced with conventional asphalt pavement because of premature failure.


3. Future Training & Posted Announcements:
 - CDOT Training (Stanford)
 - Upcoming SMM/LIMS training classes
 - January 8-9, 2015 - Sampler/Tester Training for New Users (1.5 day class)
 - January 27, 2015 – Refresher Training for Returning Users (1 day class)
 - January 29-30, 2015 - Sampler/Tester Training for New Users (1.5 day class)
 - February 12-13, 2015 - Sampler/Tester Training for New Users (1.5 day class)
 - February 24-25, 2015 - Sampler/Tester Training for New Users (1.5 day class)
 - Training dates for New Tester Training, Materials for Managers, Pavement ME Design and QC/QA classes (for HMA and PCCP) have not been set.
 - LabCAT Level I for Inspectors (Stanford/Webb). Jay Goldbaum and Bill Schiebel spoke on the actual requirements and the logic behind them. Eric Prieve was to bring this topic to the PDAC to determine who is checking the certifications of inspectors.
4. On-Line Training:
 - American Concrete Institute has a youtube channel with recorded conference sessions: <http://www.youtube.com/user/AmericanConcreteInst?feature=watch>
 - NHI has **FREE** online training for highway materials and related topics: <http://www.nhi.fhwa.dot.gov/default.aspx>
5. Materials and Geotechnical external CDOT web site is a centralized location for all Materials related documents and publications.
<http://www.codot.gov/business/designsupport/materials-and-geotechnical>

NEW BUSINESS


Asphalt

1. AC Cost Adjustment (Goldbaum). This discussion was brought forth by an individual outside of CDOT on whether the procedures used to determine the AC cost adjustment when RAP is in the mix is being performed properly. Jay polled the Regions on their process and the results were mixed in following the specification as written. Masoud Ghaeli thought that the guidelines within the specifications are not clear. Some necessary information is not in the body of the text but in the worksheet. Region 1 project engineers are aware of it but it still needs to be addressed. Jay will determine if clarifications to the current specification are required.

Concrete / Physical Prop. & Soils Labs / Etc.

2. Revision of Section 601.05 (Wieden). Craig discussed Section 601.05 of the 2011 Standard Specifications, paragraph 6, the last two sentences which states, "When entrained air is specified in the Contract for Class BZ concrete, an air entraining admixture may be added to an approved Class BZ mix design. A new trial mix will not be required." Craig stated that the addition of air entrainment can and does effect the strength of concrete if it is excessive and when combined with high slump materials. It has been problematic in Region 2 with the required compressive strength. Craig does not know why the addition of air entrainment would not require a new trial mix; however he would suggest that the last sentence of this paragraph be changed to read, "A new trial mix will be required." The project engineer must sign off on any change to the admixture. Eric Prieve will work with Craig on this issue and present any changes to the March MAC.
3. Experimental Feature Request (Prieve). The use of colloidal silica is on up to 3 projects. A presentation on colliodal silica was presented by Jon Belkowitz at the January 2014 MAC on this material and the RMEs expressed interest. Jon has a few suppliers willing to try this on projects that they supply. Eric asked that the MAC review the experimental features document for either an e-vote or it being further discussed at the March MAC. Eric asked Roberto DeDios how to pay for this research type of testing. 

Soils & Geotech

4. R-value Test for ME Design Guide Projects (Thomas/Prieve). Eric asked that since the ME design guide was calibrated using standard R-value procedures, not the CDOT modification, should CDOT revise our test practices and specifications to use the ASTM test method? The Soils lab says the change will be effortless and could end some disputes between CDOT and consultant lab values on materials. The CDOT test procedure produces lower R-values than the ASTM/AASHTO test. The difference in the procedures is whether the tester loads the sample from the base of the mold or on top of a plug within the mold. Therefore, should we convert to ASTM / AASHTO procedures from this point forward and only use the current CDOT procedure on previous R-value designs. Eric, and Jay Goldbaum along with any interested RME will discuss this issue over the next few weeks and report back at the March MAC.
5. CDOT Soils, Excavation and Embankment Inspection Manual (Thomas/Russell). Chris completed the revisions to the manual, distributed it to the MAC and the Regions for review and comment, and incorporated applicable changes. Craig Wieden mentioned a few of his comments that he did not forward by the deadline. David Thomas made a Motion, with a Second by Craig Wieden, that we incorporate this manual into our WAQTC and CDOT Embankment Inspection certification course. Vote: 8 to 0 in Favor. 

Pavements

6. Updated Value of Time for User Cost Software (Goldbaum). Since 1998, CDOT has not adjusted the value of time for cars, single unit trucks or combination trucks. After reviewing the Bureau of Labor Statistics, Occupational Employment Statistics for May of 2013 (most current data published), the following wage data was extracted for Colorado. We recommend using the statewide average (median) hourly wages for all vehicles along with fringe benefits and cargo charges for trucks. Therefore, the value of time for cars is \$18.04 rounded up to \$18.50, single unit trucks is \$43.49 rounded up to \$43.50 and combination trucks is \$49.36 rounded up to \$49.50. Jay Goldbaum made a Motion, with a Second by Gary DeWitt, to accept the new default values. Vote: 8 to 0 in Favor. Gary stated that this might inspire discussion within the Region on lane closure policy. 📄
7. Overweight Vehicles on Lower Volume Roads (Goldbaum/Perkins). CDOT is working with the Port of Entry to analyze the overweight traffic on our lower volume road. It has been suggested that overweight trucks are avoiding known weigh stations by traveling on adjacent, low volume roads that were not designed for such loads. Four roadways have been selected, from which the pavement design will need to be known prior to the analysis. It was asked if we are over-predicting traffic and therefore damage. Bill Schiebel asked the number of over-weight vehicles. Melody said that her numbers indicate 0.4% are over-weight.
8. M-E Design Updates (Goldbaum/Perkins). Changes to the CDOT M-E Design Pavement Manual based upon discussions at the M-E Design Users Group Meeting held in November were presented. Melody reviewed the changes made on page 92, 155, 257, and 484. She will ask for a vote at the March MAC. Melody also stated that the climate data that was reloaded after the recent computer turnover was corrupted with the new output providing lower moisture. 📄
9. Updated Unit Cost of CIR, HIR, FDR, HMA and PCCP (Goldbaum/Perkins). Melody briefly reviewed her December 2014 report entitled Life Cycle Cost Analysis Rehabilitation Costs. CDOT evaluated the cost of rehabilitation techniques used on interstates, state highways, and principal arterials dating back to 2002. The rehabilitation techniques study include cold in-place recycling, hot in-place recycling, full depth reclamation, hot mix asphalt overlays, hot mix asphalt mill and fill, and portland cement concrete pavement. Hot in-place recycling was further broken into three categories; heater remixing, heater repaving, and heater scarifying. A total of 1,670 projects were used in this study. Cost indices were supplied by CDOT and were used to nominalize project data to year 2014. The results indicate heater remixing for the process mat was \$1.43 per square yard, the cost per gallon of rejuvenating agent was \$1.64, and the cost per ton of hydrated lime was \$100.45. The cost for heater scarifying was \$1.03 per square yard and \$1.35 per gallon for the rejuvenating agent. A cost of \$1.65 per square yard was calculated for full depth reclamation and \$30.43 per square yard for portland cement concrete pavement. The cost for a hot mix asphalt overlay was \$36.79 per ton, while hot mix asphalt mill and fill was \$49.98 per square yard. Further refinements on the analysis to target the appropriate history of the data will be done to ensure that the best cost data is applied. 📄

Programs

10. Materials Items including the word “(Special)” (Goldbaum). Jay stated that we have some projects that use the word “special” in the bid item but are not developing a project special provision to describe the material. Kevin Ryburn stated that he wrote a white paper 6 or 7 years ago when he was in Cost Estimates describing the cost impact on projects of this action. He will try to locate a copy for the MAC. Neal Lacey will be asked to write a Design Bulletin and Eric Prieve will present this topic to the PDAC.
11. Revision of the MAC Charter (Schiebel/DeDios). Bill and Roberto discussed a requested modification to the MAC Charter to allow the Applied Research and Innovation Branch Representative a vote at the MAC. This change will expand our 9 voting members to 10. Bill Schiebel made a Motion, with a Second by Masoud Ghaeli, to revise the MAC Charter and have it effective immediately. Vote: 8 to 0 in Favor. 📄

ADDITIONAL BUSINESS

1. Small Quantity Concrete, Price Adjustment (Wieden). Craig asked for a revision to Subsection 601.17 (c) to change the sentence, “When the average of three consecutive strength tests for an individual structure is below the specified strength, the individual low tests will be used to determine the pay factor in accordance with Table 601-3.” The underlined words were added. It was also discussed to insert the phrase “per mix design per structure” into the spec. Eric Prieve volunteered to work on the verbiage and present this topic for Craig at the March MAC.
2. New ACI Certification (Prieve). Eric asked the MAC for their opinion on adding into CP 10 of the FMM a new ACI Certification that is similar to a WAQTC certification without field testing. ACI Aggregate Base Testing Technician covers sampling, splitting, sieving, atterberg limits, and proctors. This will be discussed further at either the March MAC or the FMM Meeting.

Pre / Post MAC Meeting ANNOUNCEMENTS

1. There was a Tech Com Meeting on Thursday January 15th between 8:00 to 12:00 in the Kenosha Pass Conference Room.

Schedule of MAC Meetings for 2015:

January 14, 2015	MAC Meeting @ * / R-1	May 13, 2015	MAC Meeting @ Durango
March 11, 2015	MAC Meeting @ HQ / R-4	September 9, 2015	MAC Meeting @ HQ / R-3
March 12, 2015	FMM Meeting @ HQ / HQ	November 18, 2015	MAC Meeting @ HQ / R-2

* Location was 425 B Corporate Circle, Golden in the Lookout Mountain Conference Room.

** Location was 425 C Corporate Circle, Golden in the Kenosha Pass Conference Room.

Schedule of Pavement Management Technical Committee Meetings for 2015:

January 15, 2015	Post-MAC @ **	July 15, 2015	Tentative @ HQ
March 10, 2015	Pre-MAC @ HQ	September 10, 2015	Post-MAC @ HQ
May 12, 2015	Pre-MAC @ Durango	November 19, 2015	Post-MAC @ HQ

Note 1: @ HQ means the North Holly Facility. The assigned Facilitator will continue to be the RME in the established rotation.

Masoud Ghaeli, as the Facilitator, adjourned the meeting at 3:19 p.m.