

MN/DOT Materials Engineer Organization
Fall Meeting Minutes
November 28-29, 2000
Arden Hills Training Center

Day 1

Pre Meeting (MEO members only)

MEO Officers for 2001

- Mike Rief – Chair
- Ben Worel – Vice Chair
- Steve Oakey – Preventative Maintenance & Drainage
- Roger Olson – Saw & Seal and CIP
- To be determined (C.T.) – SIPS & LIMS

MEO Meeting Sites

- Executive committee will discuss having all spring and fall meetings at a central location (St. Cloud) and the summer meetings at a District location.
- Discussed adding more time for MEO only at the spring meeting.
- Discussed whether Lab Supervisor should attend meetings.

AMRL Status

- Mike Rief discussed District 6 experience and offered to host a meeting or visit Districts to help get prepared. Rochester lab also has a draft manual that can be modified for each district.

Personnel, Position Levels & Staffing

- Graig Gilbertson poled the group on drill crew position levels
- Discussed use of consultants for testing and whether or not they should write the soils letter.
- ES for Lab Supervisors discussed.

Geo-technologies Issues

- Need more/better communication between Districts and Geo-Tech office.
- Need better dissemination of information from Maplewood

Other Issues

Tony Kempenich expressed concern that STIPs programs pavement preservation projects for low PSR numbers even though the SR is OK.

Gerry Rohrbach Comments

- Stressed that we need uniformity between labs for tests and procedures. MEO requested a specific person/position to oversee implementing/organizing uniformity.
- Handout of Memo to ADE's regarding superpave guidelines. Most project will fall into superpave. Biggest question is defining *short life* and *long life* overlay.

Pavement Office Issues, Joe Meade

- Putting together Uniformity Guidelines, waiting for more feedback.
- Discussed upcoming low bid design build project on T.H. 100 in Golden Valley and T.H. 14 in Owatonna. MEO asked for a technical presentation for the spring meeting.
- Handout on update of micro-deval test as a screening test for mag sulfate tests.

RAPR Update

- Tim Anderson gave a presentation summarizing the south area reviews. Most project seemed to be going OK, only a few minor problems.

Dave Miller summarized his findings. His gut feeling is the Bituminous pavement is not as good as it was the last few years. Many DOT employees don't agree with incentives, they feel they add too much additional paperwork and bureaucracy. He feels we need additional people on the projects and additional training. Projects need better scoping. He has concerns regarding longitudinal cold joints and saw and seal in bituminous.

Mike (Ray) Robinson gave two handouts reviewing and comparing bituminous cores for density. The first showed density in cores at the edges were always lower compared to mid lane. The second compared densities obtained from the Trans Tech model, Nuclear model and cores. This study showed that cores were more accurate than the nuclear and the Trans Tech and the nuclear was more accurate than the Trans Tech but cores are not perfect. Mike also noted that the plant monitors need to periodically watch weighing of cores to verify calculations.

Urban Ride

- Graig Gilbertson gave a handout showing urban concrete usually having poor ride (PSR) numbers. Discussed possible ride specifications for urban roads and that there already is a smoothness specification in place.
- Joe Meade mentioned that the new Spec book was due to be delivered two weeks ago. Spec books arrived Thursday 12/29/00.

Bituminous Office, John Garrity

- Handouts of changes to 2350 and 2360 specifications. A few of the changes were covered in detail. Any addition input or changes need to be in by Friday.
- Handout of Asphalt prices for 2001.
- Handout of prices for 2350 and 2360 mixes for past year.
- Discussed plan typical sections not showing the separate lifts but calling for equal lifts.

Concrete Office, Doug Schwartz

- Discussed the history of the Certified ready mix program.
- Handout of Memo from Jim Swanson and Pat Hughes to ADE's requiring participation and enforcement of policy.
- Discussed Certified ready mix issues, mainly the ready mix industries comments requesting uniform enforcement.
- Discussed the goal of getting all certificates of compliance to have the specified information in the same format/location on all tickets.

Encountering Hazardous Soil During Drilling, Brian Kamnikar

- Handout discussing State and Federal regulations concerning this issue. Main contaminants are petroleum and non-petroleum

Claims and Legal Issues, Don Orgeman & Mike Rief

- Mike and Jack dress up well for court
- Bituminous issues have increased, mainly VMA, superpave, tenderness and materials quality.
- Mike summarized their recent arbitration hearing and highlighted: organize and monitor information to be aware of what is happening, document everything pertinent.

Mechanistic Design, Dave Van Deusen

- Handout updating M-E design procedure progress, training for MnPAVE should begin this spring. The group agreed that multiple training sessions and locations would be better than one large training session.

Pre-Cast Plant Inspection Issues, Mark Gieseke & Steve Oakey

- Steve noted that there was a possible 'Unfair Labor Practice' suite over a suppliers practice of supplying products to one project when they were originally built for another project.
- Little contact from the pre-cast area since Gary Reihl left.
- It was suggested that the plant monitors/inspectors meet at least once a year.
- Include Wendy Garr from the Concrete Office.

Uniformity Committee

- The idea of forming a Uniformity Committee was referred to the MEO Executive Committee

Saw & Seal, Keith Herbold, Jerry Geib

- Keith gave a handout of survey results showing who was S&S to control reflective cracking
- Jerry showed slides reviewing and summarizing a S&S project in District One. More research is needed. It seems to be acting like undoweled PCC. No identifying cause.
- Jerry gave a handout and slides reviewing PG Binders used in S&S and a survey and results of what the districts are doing with the practice of S&S.

Day 2

Uniformity Discussion

- A discussion of uniformity prompted the decision the a class/seminar discussing statewide uniformity in plant certification, plant monitoring, test procedures etc. will be needed for both concrete and bituminous. Most felt each subject should have at least one day.

Liaison Reports

- Design
 - Discussions continued on using soil borings in plans. If they are going to be used, use on all projects state wide.
 - MEO needs to make an effort to attend Design Engineers meetings.
 - Multiple/variable PG Grades in projects, Designers may need a little more guidance.

- IAI, Dale Nelson
 - Handout of IAI meeting minutes
 - New software for reporting IAI information available soon.
 - Training need for concrete and bituminous plant certification and monitors.
 - Experienced personnel and more personnel in general need at sites. Need to use personnel better/more efficiently.
 - Noted that IAI report to various supervisors: Materials Engineer, Soils Engineer, Lab Supervisor.
 - They will need training/certification for DCP and Portable Falling Weight tests soon if they are going to verify field personnel.
 - Handout showing IAI observed bituminous cores. These results differed from Mike Robinson's.

Liaison Reports

- Lab Supervisors, Jack Thoreson
 - Noted that the group was apprehensive regarding AMRL. Jack summarized what is needed for AMRL in reference to time, equipment and follow up.
 - Concern regarding test procedures and uniformity.

- Soils Engineers, Robin DeLage
 - GeoTech Manual need to be updated. Include Soils Letter information and example.

- Soil Crew Chiefs, Graig Gilbertson
 - Be aware of contaminated soils.
 - Soils automation, need to be more uniform.
 - Staffing varies between districts.

- ADE, Joe Meade
 - Major topics covered in ADE group were Design/Build and overtime for MGEC employees. Minutes will be sent out.

- FHWA, Keith Herbold
 - No more regions in FHWA. Their office is now technical experts.
 - Current hot issues here are also Nation wide
 - Some concrete unbonded overlays are stripping and causing cracking.
 - A memo is out in Washington D.C. to look at skewed tining.
 - Preventative Maintenance manual and information available on CD or on Web @ www.mrc.fhwa.dot.gov

Pavement Marking Tech Memo, Mike Rief

- Tech Memo requiring tape for stripes was handed out.
- Will have to make preventative maintenance work with new stripes.
- MEO should send a letter to Joe Meade/Gerry Rohrbach siting concerns.

Preventative Maintenance, Roger Olson, Jerry Geib

- Handout of draft guidelines summarized.
- Each district discussed plans for upcoming projects.

Cold In-place Recycling, Roger Olson, Graig Gilbertson

- Graig gave a handout of minutes taken from a meeting held in Bemidji (First Annual International Symposium for Cold Inplace Recycling). Also a handout of prices. Summarized projects and experiences. Noted the in 2000 a 'train' setup was used and gave a better product.
- District Two will send out draft specifications and the changes made soon.
- Art Bolland summarized their project on T.H. 23 in District Eight.

Pavement Management, Dave Janish

- Dave summarized a handout with bullets of Pavement Management issues.
- Updated/revised prediction of distresses.
- Remove edge drains from decision tree for concrete.
- Draft report of Phase III of Marquette study of public perception of roads is available.

Soils Automation, Minnie Milkert, Lou Barrett

- Presentation of current status of soils automation
- Goal is to transfer use to districts. Should save time over current methods. Will continue to run/plot until time to transfer comes. Trying to make the program user friendly.
- Handout and presentation on GEOPAK & IRM 69. MicroStation and GeoPak will continue as MN/DOT standards. MicroStation 2000 has many enhancements. PO69(Road Design)incorporates new and emerging technologies into automated programming.

Foamed Asphalt, Joe Thomas

- Presentation of demonstration project in Ames, IA.
- Foaming comes from adding hot AC with water and air.
- Process is somewhat of a Cold Inplace Recycle. Six inches of inplace gravel material and sealcoat material were added to three inches of virgin material and the foamed AC. After placement the material was rolled with a sheep's foot. The crown was then cut with a grader. The final process was to water and roll with a steel drum. A chip seal was also be added.

Project Manager Reports

- Drainage

- Data base of edge drains seems to be lacking, making maintenance difficult.
- SIPS/LIMS
- Handout summarizing recent SIPS/LIMS activity. LIMS seems to be more dependable lately. LIMS will be updated to Sapphire.

Round Robin

- District six
 - Had a GeoFoam (light weight fill) project on T.H. 61. Meeting with District Seven in December to discuss non Class A material in Quartzite. Thought they were the only district requiring Class A in bridge decks.
- District Three
 - New soils crew in St. Cloud
- District Two
 - Six SuperPave projects upcoming, one reclaim project. They have a new hierarchy. Tried a project with unstabilized open graded base under bituminous.
- District One
 - TRIMBLE-? (soil logger, GPS) worked well, many possibilities. Like their track vehicle. Tried some GeoCell. NRRI-? Studying the use of taconite tailings in bituminous and concrete. Some concerns regarding the tailings and ASR.
- Lack of CIP projects
- Roger Olson noted that MN/ROAD's rehab procedure will be more formal
- Committee formed to look into archiving the construction records from projects. Chair - Matt Zeller, Members: Dan Boerner, Terry Beaudry, Rod Garver.
- Joe Meade mentioned that the Spec book arrived but was not sure of its implementation date.