



Standards Oversight Council (SOC)

Supporting Technical Standards for Urban and Rural Soil and Water Conservation

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DRAFT PERMEABLE PAVEMENT MEETING AGENDA

Friday, August 23, 2013 || 9:30am – 3:30pm

Conference Room 121A, Dane County LCD Office, 5201 Fen Oak Dr., Madison, WI 53718

Attendees: Laura Fenley, Chris Homburg, Kate Gleason, Roger Bannerman, Bob Roehrig, Tim Troester, Pete Wood, Tom Price, Seth McClure (DOT), Michelle Reynolds, John McCarthy, Josh Harder, Gini Knight, David Liebl. Jason on phone.

Welcome / Team Member Updates

Research Plot Update (Bob R., Roger, John)

The USGS, WDNR, County Materials, and others research team is working through details of installation, budget, and funding. Some other industries/companies have contributed financially, and team members are still trying to find sources for the ~\$40,000 whole in the ~\$217,000 budget. There is a target date of September 23rd for installation/beginning construction date. Construction is scheduled to last one month. The concrete industry has been re-engaged, and now the three cells will have either permeable concrete, asphalt, or paver systems. The system is currently being designed with a 15:1 run-on ratio dispersed over the three plots. There is also the option to include a splitter to have 7.5:1 run-on ratio. The group will continue efforts to engage other concrete companies.

Simplified Infiltration Testing (Roger)

The team reviewed two additional simplified infiltration tests, alternative options for ASTM Standard C 1701. The tests also note that the most efficient way to assess the function and potential clogging of the pavement systems is to observe them during large rainfall events.

One test from NC State University provides a quick estimate of surface infiltration rate by a single person using a 2"x4" wooden frame and a 5 gallon bucket of water. This test is a cost-effective option to see if there is clogging and need for additional sweeping or cleaning. This test provides a range of dewatering times that indicates when regular maintenance or restorative cleaning should occur. The team plans to test the method in the field, but would not use this for rigorous research testing and results. This testing would not take the place of a regular maintenance schedule or regular sweeping.

The team also reviewed an EPA study of surface infiltration rates for various pavements. The study shows differences in infiltration rates between pavement types, time of year, and year to year. The team will keep these testing methods in mind for references as we review full draft standard. These methods could be referenced in Criteria I. Infiltration 3, and the Operations & Management.

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Review full draft standard (Pete, Gini)

The team reviewed the draft standard, starting from the beginning to Criteria E.

- Deleted 'or' in Definition – "...designed to achieve water quality and ~~for~~ quantity benefits."
- Potentially add criteria as place holder for 'thermal mitigation'
- Move reference to Standard 1002 from III. Conditions where practice applies to General Site Criteria.
- Add additional Criteria – General Site Criteria for site evaluation, including soil and groundwater evaluation.
- Include reference to ICPI under Criteria B. Pavement Surface Design for clay brick pavers.
- Consider pretreatment needs for articulating concrete block/mat
- Criteria C. Pavement Surface Infiltration Design Parameters - Add designer decides the design life of the pavement that is appropriate for specific pavement type. This addition makes sure that the specific site meets water quality goals.
- Criteria C. Provide rainfall data.
- Criteria D. Pavement Surface Infiltration Properties - Add that a test maybe be required at discretion of authority.

The team did not complete the full review of the standard. We will add another meeting in September to finish reviewing the standard and make another round of revisions before sending out the draft to initial reviewers in late September.

Discussion with Team Sponsor regarding Run-on Ratio (Pete, Roger, Mary Anne)

The team and sponsor shared concerns regarding current draft 5:1 run-on ratio. Concerns, research, lit review and other state experiences were shared. Historically, WDNR has not allowed any run-on without pre-treatment. The literature says that the pavement systems are providing the pretreatment. There are groundwater and surface water concerns, particularly with higher run-on ratios, because of the systems are concentrating the pollutants. The systems have to be maintained to prevent clogging and make sure the pre-treatment is occurring. Together the group modified the ratio depending on source area types, and included additional criteria about the effective infiltration area.

Initial Review Process. (Gini)

The goal of an initial review is to have experts outside of this team process provide a thorough review of the team's current draft and provide feedback.

- Potential Reviewers (team contact)
 1. David Smith (Roger)
 2. Nick Vande Hay, McMahon Inc Associates (Roger)
 3. John Vorhees (Roger)
 4. Nader Jaber, City of Milwaukee (John)
 5. Willie Gonwa, MSOE (Pete)
 6. Eric Rortvedt, DNR (Pete)
 7. Old Castle rep (Bob R)
 8. Unilock rep (Bob R)
 9. Jay Rients, former UniLock (Tom)
 10. Kent Hansen, NAPA – (Scot)

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- The team contact will email/call the potential reviewer to see if they are willing to provide a thorough review of the standard. Once accepted, the formal request with process information will come from Gini after the September meeting.
- We plan to send the draft standard to reviewers by September 9th and allow up to three weeks to receive their comments. Comments are due by Sept 30th.
- Reviewers send comments back to Gini in a separate document organized by each section of standard. Pete will be the contact for questions about the standard. Gini will compile the comments by section with a reviewer code, and provide all organized comments to team members.

At the September meeting, the team should determine how we will respond to comments – in a summary document or individually.

Outreach for New Standard. (David)

David presented a draft outreach/training plan for release of this standard. WDNR and UW Extension will lead a training committee. Industry representatives are encouraged to participate. We plan to offer a statewide webinar reviewing the standard and how we developed the standard after it is released in February or March. WDNR, NASECA, and industry ideally will have summer field days to promote proper implementation of the standard.

Action Items:

- Roger, Pete, Josh to provide rainfall data for design parameters.
- Pete will incorporate revisions into draft standard and send out to the team.
- Gini will send out a [Doodle Poll](#) to schedule an additional September meeting and potentially change the October meeting.
- Team contacts for initial reviewers will contact reviewers with an invitation to review the standard and a heads up that we'll be sending it to them in late September.
- David will update the outreach/training plan and continue to provide updates at future meetings.
- All to review the full standard, and be prepared with questions/concerns or potential revisions at the next meeting.

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