AASHTO 2019 COBS Annual Meeting, Montgomery, AL
T-15 Committee Meeting – June 25th
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How did we get to where we are now?

• Main purpose of MSE ballot items is to update/improve internal stability analysis for MSE walls
• Needed because some of current spec is very out of date (20+ years) and there has been a lot of research done that needs to be incorporated into the code
• Effort began back in 2012 through joint effort between T-15 and an MSE Wall Task Force
• Some other MSE wall issues besides internal stability have been addressed in previous years ballot items
• Research for and development of new methods for MSE wall internal stability was mostly completed by 2017
How did we get to where we are now?

- First rough draft developed for 2017 T-15 mid-year meeting and draft was revised for later T-15 meetings
- Primary concern with draft from T-5, state DOTs and industry was inclusion of 4 different methods for internal stability ("current" Simplified Method and Coherent Gravity Method and "added" Stiffness Method and Limit Equilibrium Analysis)
  - Why do we need 4 methods?
  - How do you know when to use what method where?
- At 2018 T-15 mid-year meeting, the following was decided and agreed upon by T-15, T-5 and the MSE Task Force
How did we get to where we are now?

- Retain the Coherent Gravity Method for steel reinforced structures, but leave uncalibrated for now
- Add in the Stiffness Method for geosynthetic reinforced walls (including geostrips), and calibrate it
- Move the Simplified Method to a new Appendix B11 as a legacy method and leave uncalibrated, but refer to the method in the code as an acceptable method
- Include Limit Equilibrium Analysis with improved guidance in the compound stability article for use in:
  - Checking compound stability
  - Checking internal stability for walls with complex geometry or very soft/weak foundation soil
MSE Agenda Item Highlights

- MSE ballot items include 3 attachments (A, B & C)
- Attachment A covers changes to Section 3 (Loads and Load Factors) for internal stability of MSE walls
- Attachment B covers updates, improvements and additions to Section 11 (Abutments, Piers, and Walls) for internal stability including $T_{\text{max}}$ calcs based on agreement reached at 2018 T-15 mid-year mtg
- Attachment C covers additional changes and clarifications to Section 11 for miscellaneous items primarily related to zinc coating thickness, geostrips, AASHTO R69 and facing connection strength
Discussion