**TPF-5(268) – Sustainable Pavements Consortium**

**TAC Meeting – May 19, 2015**

**5:30 PM – Westin Alexandria**

**Meeting Notes**

Participants – Affan Habib (VDOT), Nadarajah “Siva” Sivaneswaran (FHWA, by phone briefly), Girum Merine (Wisconsin DOT), Steve Kosher (PennDOT), Edgar de Leon Izeppi, Gerardo Flintsch, and Samer Katicha (VTTI), Kevin McGhee (VCTIR)

***Called to order at 5:36 pm***

*Gerardo provided a review of Consortium makeup and activities. See attached PPT for original Objectives & Scope. Members currently are: FHWA, Virginia, Pennsylvania, and Wisconsin. Mississippi is a past member and Florida has repeatedly indicated a desire to join (still pending).*

***Guiding Research Questions – see PPT***

* **What emerging materials, construction practices, and pavement systems have the most potential for increasing the sustainability of our road infrastructure?**
* **What do we need to measure** -and how do we measure-**-sustainability in the context of pavement engineering?**
* **How do we integrate sustainability consideration into pavement management processes?**

***Current Projects – see PPT***

* **R1. How to measure the benefits of emerging materials and processes?** 
  + **I-81 reclamation – Virginia**
  + **Asphalt Rubber Gap-Graded mix? – PA and VA**
* **R2. Incorporating use-phase into Life Cycle Assessment (LCA) for pavements** 
  + Project-level LCA Tool
  + Probabilistic Network-level LCA
  + Multi-criteria Analysis
* **R3. Use of LCA in pavement-type selection**
  + **Guidelines to include environmental assessment as part of pavement-type section process**

***Education and Outreach***

* **Graduate class at VT**
* **Recycling workshop – VA, WI**
  + **Presented most recently in Madison, WI**
  + **Received good feedback from DOT Engineers, upper management, and contractors**
  + **WI & VA developing guidelines and guide specifications for CIR** – with more experience, WI anticipates moving forward with full-depth reclamation
* **Coordination with European Effort – e.g., ECOLABEL/LCE4Roads**

***LCCA vs LCA Discussion***

* More many DOT’s, LCCA relates only to agency costs – does not cover user costs
* LCA incorporates societal costs (e.g., user delay, GHG production, etc.)
* There is much research addressing the way we maintain pavements and how they impact user costs – for instance, maintaining a smoother pavement may cost agency more, but represent a lower overall societal cost
* Still need to develop standard procedures to compare, for instance, HMA vs. WMA – we’re also looking at recycling techniques

***Wrap-up and Future Activity Discussion:***

* Continue/Expand Current Projects
  + R1 – Other examples
    - A noise study for Asphalt Rubber?
    - Explore LCA of rubber-modification to asphalt as a more general topic?
  + R2 – Refining & coordination with LCE4Roads
* New projects
  + R4: Integration of sustainability into network-level PMS
  + Local/regional workshops?
  + 2nd International Workshop on Sustainable Pavements
    - FHWA-Supported activity?
    - Comparing USA/European LCA concepts
* General Discussion
  + A definition for sustainable pavement?
    - No good definition of sustainable, but it is possible to identify/calculate more/less sustainable.
    - Perpetual pavement is more sustainable than “non-perpetual”.
  + Precast versus new composite or wet-on-wet concrete?
    - Support for continuously reinforced concrete as platform for asphalt as most sustainable pavements – see older LCCA from Premium Pavements?
    - This could be worked into the work done under the FHWA-supported effort to perform LCA for Pavement Type Selection.
  + Possible PA Activities:
    - Recycling workshop
    - Following up on R1 project to explore rubber content

***Action Items:***

* Plan a webinar for presentation at or around the TRB Annual Meeting - Gerardo
* Pursue FHWA-supported sustainable pavements workshop – Gerardo/Siva
* Post minutes/progress reports/etc. to TPF website – Kevin
* Consider making VTTI publications available via Virginia Tech library – VTTI group
* Distribute minutes with PPT - Kevin
* Conduct a doodle poll to have a follow-up web-meeting in the next month or so (sometime over the summer) - Gerardo

**Adjourned at 7:20.**