Webinar #3 – Composite Pavements Design Using the AASHTOWare PMED Software.

The following provides an answer or response to all questions asked during the webinar. Some of the questions were asked in the Question and Answer Box, while others were asked and answered in the Chat Box. Response to both are summarized below.

Milind Jamble:

Q: If the existing PCC/JPCP layer is damaged or have cracks developed along with raveling, what treatment shall be given prior to overlay with AC or JPCP to obtain the assumed bond?

A: That's on a different topic. This webinar is not relating to or focused on existing layers with damage. This was focused on existing layers with no damage or nil damage because we are starting the design period almost right after those materials were placed so there is no raveling and there is no cracking in the JPC or CRC layers other than the cracking that would be normally anticipated in a CRC layer and or maybe shrinkage cracks in a JPC layer if that happened. To answer the question, if there is damage, and we are talking about an asphalt overlay of an existing JPC and or CRC layer then I would do a binding on the surface if there was cracking. The standard in accordance with the MEPDG Manual of Practice on how to treat the existing surface prior to restoration or rehabilitation of the surface and or the local agency's standard day to day practice for treating those distresses. I hope that answers the question.

Milind Jamble:

Q: Can we design and lay JPCP over JPCP when the old pavement is more than 15 years old with no bond in between?

A: The answer to that question would be yes you can, and those rehabilitation design strategies should be done in accordance with the existing MEPDG Manual of Practice and or existing agency's standard day to day practices. So, I doubt you could use the software.

Alauddin Ahammed:

Q: MOP provides higher subgrade Mr for AC than JPCP pavements. Should not subgrade Mr be as specified for JPCP for AC over JPC composite?

A: If you have an asphalt overlay of an existing or if you have a new design rigid versus flexible, you should use in terms of a new composite pavement design strategy, use the subgrade resilient modulus that is appropriate for the pavement structure. So, if you do that in accordance with the MEPDG Manual of Practice, it's appropriate for the stress sensitivities that exist under that composite pavement. Under that composite pavement, the stresses in the subgrade are driven predominantly by the concrete layer. In other words, the stresses will be minimal or low, so you would use the resilient modulus that is more appropriate for the concrete rather than an asphalt section. I hope that answered the question. But that would be in accordance with the MEPDG Manual of Practice.