Designer's Meeting
Minutes
Wednesday, May 18th, 2011
Conference Room 317 A&B
1:00 - 2:00 PM

Present: Dave Sullivan, Roger Naous, Joel Veilleux, Devan Eaton, Mike Wight, Mark Parlin, Brian Reeves, Ben Scheurenbrand, Garrett Gustafson, Rich Nimon, Kate Meguire, Dave Shaw, Bill Doukas, Michael Moreau, Dana Damren

Topic 1: I-295 Joint Details (see handout)

"This is a gland seal." Bill Doukas gave a presentation on cracking which is occurring parallel to gland seals along the edge of angle which the seal is welded to. This issue may be caused by the relatively thin layer of concrete over the angle or the type of concrete being used. The cracking has occurred on a new seal, installed fall 2010, on I-295 NB near Portland and recently noticed on Callas International Bridge by Eric Shepherd.

As a solution maintenance, on Bill's suggestion, will be testing the Watson Bowman Type M extrusion in Old Town on I-95 NB which has a 43 degree skew. For this reason the width of the seal was increased from 4" to 5". The Type M extrusion cost approximately $30/ft. An issue with using the Type M is that it is a proprietary product as D.S. Brown does not have an equivalent product. It should be noted that even though this is a new product for MaineDOT other states are already utilizing it.

This raised the question of; How to avoid the Proprietary Product?

- Call for Type M OR D.S. Brown with Elastomeric Concrete header
- Weld a flat section to the D.S. Brown

Mark Parlin pointed out that with the type M maintenance can not simply cut out the old seal and weld in place a new. It would require extra deck cutting. Which Mike Wight added makes a "light rehab" tough.

Mike W: If you have had a project within the last five years that used gland seals and are in the area, stop and take photos. We would like to find out if this is an isolated issue or wide spread.

Seal discussion brought up a lesson learned by Devan and Doukas: Do not allow header concrete to be poured past the backwall as a crack will develop in the header at the backwall.

Topic 2: Lessons Learned

Box Culverts with base slab: Rich Myers was recently asked by contractors whether they could use a base slab for a box culvert. This was allowed with the stipulation that there must be a significant connection to allow the final product to act as a four sided box.

Glulam Bridge Rail Spec: In his recent use of the spec for glulam Rich noticed that the wood specs, preservatives and design values for wood used were not up to date. He is working to bring the glulam spec up to date. See him before further use to see if he has it updated.

Post Meeting Discussion

Rich M: LRFD states that diaphragms should not be placed parallel to supporting elements past 20 degrees. Mike W commented that this is not a hard set rule, but rather around 30 degrees intermediate diaphragms should be place normal to the stringers.

Mike W: For future PDRs on projects which are not yet funded for construction designer's should, in either the bridge recommendation form or summary of preliminary design, add a couple sentences on the expected time frame for construction funding.