Site Inspection of Roadway, Ridge District, Milepost 102-105

The following two bridges in this section are good candidates for the FHWA, IDIQ contract for bridge approach reconstruction

1. VA Route 652, crossing underpass at MP 104.3

   This is a concrete box culvert bridge with granite wall parapets on either side of the road. The pavement is severely settled on either side of the box culvert and is very dangerous to motorists, particularly motorcycles. Repairs will require Type 2 pavement patching to a length of 50 feet and a potential depth of 3-5 feet on either side of the bridge. New road base should be built up with layers of compaction on either side of the bridge possibly to include geocomposite materials. Pavement overlay of entire bridge is 250 feet including 100 feet of pavement deep patching. Pavement should be 3 inches of asphalt base with ¾ inch aggregate and a 1 ½ inch wearing course overlay with 3/8 to ½ inch aggregate asphalt superpave mix designs.

   Estimated cost including removing asphalt, installing type 2 patching, milling and overlaying asphalt across the bridge, restripe centerline is *$80,000* including contract mobilization, overhead and profit.

2. VA Route 657, crossing underpass at MP 104.8

   This is a concrete box culvert bridge with granite wall parapets on either side of the road. The pavement is severely settled on either side of the box culvert and is very dangerous to motorists, particularly motorcycles. Repairs will require Type 2 pavement patching to a length of 50 feet and a potential depth of 3-5 feet on either side of the bridge. New road base should be built up with layers of compaction on either side of the bridge possibly to include geocomposite materials. Pavement overlay of entire bridge is 320 feet including 100 feet of pavement deep patching. Pavement should be 3 inches of asphalt base with ¾ inch aggregate and a 1 ½ inch wearing course overlay with 3/8 to ½ inch aggregate asphalt superpave mix design.

Estimated cost including removing asphalt, installing type 2 patching, milling and overlaying asphalt across the bridge, restripe centerline is *$95,000* including contract mobilization, overhead and profit.

Areas of mainline pavement that is a hazard to all motorists due to severe pavement slump, alligator cracking and settling of fill areas between MP 102-105, beneath the mainline parkway

- At milepost 105, pavement has slumped on either side of a concrete culvert for a total linear distance of sixty feet. Repair will require 150 sq. yds. of type 2 patch. The pavement slump is a hazard to all motorists particularly motorcycles. The slumped areas cannot be repaired with cold patching.

- Between milepost 102 to 103 we measured 800 linear feet of severely slumped pavement caused from fill slope settling. These areas will require deep Type 2 pavement patches to depths of 3-5 feet using geotechnical fabrics to bridge the new road base.


- The pavement between milepost 102 to 105, and along the entire length of section L, is highly degraded, is approximately 28+ years since the last repaving and the pavement is only approximately 2 ½ inches thick along the entire L section.

Recommendations: The conditions along section L, are as bad or worse than most any other section of Parkway. We recommend that this section should be rated a high priority for the next 5-year FLHP funding program. Terry McElrath's paving chronology report shows this section should be overlaid in 2015, since it was last overlaid in 1975 or 38 years ago. If section L cannot be entered as a high priority in the next 5-year program, as a second option, we recommend that the last 3 miles of section L, between milepost 102 to 105, be included as a priority with section M. Section M is listed for the next 5 year program too, because it was last overlaid in 1979 or 33 years ago. Both section L and M have very thin overlays of pavement of approximately 2 to 2 ½ inch depth and are both showing severe pavement cracking throughout their length.