Guardrail Committee Agenda

July 28th, 2005
10:30 AM
Roadway Design Conference Room

I. Old Business

A. Cable to end terminal treatments

Action: *This issue was tabled. The Guardrail Committee will continue to search alternative treatments to address this issue.*

B. Composite Offset Blocks and their durability: Mr. Warren Walker asked the Roadway Construction Engineers to look for twisted offset blocks. None were noticed during their travels throughout the state over a 30-day period.

C. W-Beam Barrier Terminals and site specific grading conditions

Action: *Addressing any design changes was tabled. Dennis Jernigan and Warren Walker will make field observations and let the GRC know if they see any areas of concern. Joel Howerton noted that with resurfacing projects it would likely be difficult to address areas where additional site grading will be required. It was noted that the optimum placement of guardrail should be achieved when practicable.*

D. Guardrail Installation in Rock and Mowing Strips

Action: *Joel Howerton passed out a specification for the GRC to review and provide their comments. This specification is based upon the memorandum sent out by FHWA dated March 10, 2004. The 2006 Specifications will be updated to include this new language pending final approval.*

E. Temporary Guardrail Anchor connection to an existing or temporary bridge.

Action: *It was noted that the potential problem area is the transition from Thrie Beam GR to a vertical face. The contractor is responsible for the design. The Temporary Type III Anchor Unit is the recommended attachment to a temporary bridge. No further action is required at this time.*

II. Guardrail Maintenance Concerns (Attachment No. 1)

An E-mail dated May 5th, 2005 from Mr. Ted Sherrod, Roadside Environmental Field Operations, to Mr. Art McMillan expressed concerns with the placement of guardrail and management of vegetation on a recently constructed project. Mr. Jay Bennett also attended a meeting (July 8, 2005) with Operations to discuss possible measures to address this concern.

Action: *A subcommittee will be formed to investigate what changes can be made to our standards to reduce the vegetation management maintenance concerns. Mr. Ron Allen will chair this subcommittee. Others on the subcommittee include David Harris, Lonnie Watkins, Garry Lee, Warren Walker, and Joel Howerton.*

III. Roadside Design Guide Questions (Attachment No. 2)

E-mail from Mr. Dennis Jernigan with questions that he had generated based upon attending a recent Roadside Design Guide training course.

Action: *Each question was briefly addressed. The majority of Mr. Jernigan's questions were answered in reference with the Roadside Design Guide. Concerning the Buried in Cut treatment, Mr. Howerton provided a copy of the current BIC detail.*

IV. Weak Post Guardrail Issues (Attachment No. 3)

- Adjustments have been made to Weak Post Guardrail (WPGR) to meet TL-3 requirements. The Department has developed a detail that closely matches the Weak Post design approved by FHWA and used by PENNDOT.

  Action: *The GRC reviewed the attached WPGR, PENNDOT design, acceptance letter from FHWA. The committee also reviewed the attached new detail, which closely matches the PENNDOT design.*

- Received an e-mail form Mr. Dennis Jernigan in regards to the placement of WPGR. He questioned the mid-span splice that was shown on the WPGR detail provided to him by FHWA.

  Action: *While reviewing the new WPGR detail, it was noted that there was a rail height adjustment, a mid-span splice and a back up plate required at each post.*

V. Recycled Guardrail

E-mail request by Mr. Randy Pace to revisit the usage of recycled guardrail. Evidently, it was looked into approximately 7 years ago and determined to not be economical. Mr. Pace has recently received several requests to revisit its usage.

The GR contractors initiated this request to recycle the posts and rails. Presently, Kentucky DOT processes recycled GR. They use prison labor to separate the GR into two groups: One to be recycled and the other for scrap metal. The recycled GR is then stripped down and regalvanized. The biggest problem that KDOT has is with getting the GR properly sorted by prison labor.

Action: *Recycled guardrail should be considered for use. A requirement for regalvanization needs to be established. This topic should be discussed again at the next meeting and will become a subcommittee assignment.*

VI. Usage of B-83's and B-77's in lieu of Type III anchors

Received an e-mail request from Ms. Cynthia Perry to discuss the usage of B-83's and B-77's in lieu of Type III anchors. She suggests the Department would save money making this change. Current practice is to use Type III anchor units on new bridge approaches. Type B-83 anchor units are used on exiting bridges with jersey shaped barrier and a curb on the approach slab. Type B-77 anchor units are applicable for attachment to precast reinforced concrete barrier at underpasses.

Action: *Based on our current Type III anchor standard, it was noted the width of the barrier wall often times creates a placement problem with attaching the Type III Anchor Unit. To further investigate the usage of a new structure GR anchor, the Structure Design Unit will need to concur with a barrier shape and a transition section to accommodate the attachment of the B-77 anchors. Mr. Victor Barbour will also need to agree with this change.*

VII. Vendors' Request to add high tension cable to a TIP or Division project (Attachment No. 4)

High-Tension Cable vendors wishing to have their products used on TIP or Division projects have recently contacted design staff. The revised chapter 6 in the Roadside Design Guide mentions four high-tension cable vendor products that meet TL-3 requirements.

Action: *It appears that we need to revise our Special Provisions on applicable projects where High Tension Cable can be used. The Special Provision can be written to allow for the placement of a generic High-Tension Cable product up to specified maximum deflection. This will allow contractors the opportunity to use different types of High-Tension Cable products when they bid on a project.*

Roy Riedl with Highway Safety Corporation should contact the Divisions and Maintenance directly to try to have his product implemented on DOT projects.

FYI:

- The first meeting for the AASHTO Technology Implementation Group for Cable Median Barrier is scheduled for July 29, 2005. This kick off meeting is being held to initiate the development of a Lead State Team tasked with the development of a guide for Cable Median Barrier Implementation for other States. **(Attachment No. 5)**

- A copy of the *AASHTO Roadside Design Guide Revised Chapter 6: Median Barriers* was provided to the meeting attendees. The AASHTO Subcommittee on Design has recently reviewed this section.

Minutes prepared by Roger Thomas, PE _____

Minutes approved by Ron Allen, PE _____