ATTACHMENT 56 – ANSWERS TO STANDARD SET OF QUESTIONS BY THE OHIO DOT

(3 pages)

Ohio DOT

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Italics represent the responses by the Ohio DOT.

1. What was your procedure in reviewing consultant engineering bridge plans in the early 1960's? *Approximately half of the bridge designs performed in the early 1960's were performed by consultants. One of the senior bridge engineers at ODOT Bridge Bureau in Central Office reviewed all consultant bridge plans.* **What is your procedure in reviewing consultant engineering bridge plans today?** *The consultant's bridge plans are reviewed by either ODOT or a consultant hired by ODOT to perform this task. ODOT District Office is responsible to get the bridge plans reviewed. ODOT District personnel review the bridge plans if they have time. If no ODOT District personnel is available then the plans are sent to ODOT Office of Structural Engineering (OSE) at Central Office. If OSE can not meet the schedule for the review, then the plans are sent to a consultant for review. The consultants that perform reviews for the State are required to have a PE sign the review letter.*

2. How do you ensure the QA/QC process of a consultant engineering firm is adequate? *The ODOT has always required that bridge plans be have an independent check and review. The title block for the bridge plans have a block for the initials for the designer, checker, and reviewer. The ODOT Bridge Design Manual (BDM) requires that the bridge plans be independently checked. Consultants in Ohio are pre-qualified to design either a level 1 bridge or a level 2 bridge. A level 1 bridge is a bridge where most of the design is derived from a Standard Drawing or a Design Data Sheet (A design data sheet is currently available for concrete slab bridges and pre-stressed box beam bridges. No structural design is necessary for the superstructures for these bridges. The Design Data Sheet gives the design and the consultant shows the design in the plans by adding minimal additional information eg: notes, quantities, rebar schedules, etc). A level 2 bridge is all other bridges except special bridges (Special bridges would include lift bridges, cable stayed bridges, and other highly complex bridges determined by ODOT). Consultants get pre-qualified as a level 1 or level 2 bridge designer by submitting the qualifications of the bridge engineers for review by ODOT. ODOT reviews these qualifications. In order for a consultant to be pre-qualified to perform designs on a level 2 bridge, the firm must have 2 PE's that have experience designing bridges with a set list of attributes. For special bridges ODOT will ask for the consultant to include the design team qualifications in the RFP.* **In the early 1960's and today?** *Same process that was in place in the 1960's is in place today.* **What procedures are in-place to ensure that the consultant does not submit an inadequate design?** *(see above)*

3. What does the Ohio DOT consider a red-flag item when reviewing consultant engineering bridge plans? *I am not sure of the definition of "red-flag". ODOT reviews consultant plans and gives comments. Types of comments include: 1. organization of plans, 2. issues regarding bidding the contract such as notes or quantities, 3. detailing errors, 4. member sizes 5. structure type, 6. foundation type, 7. bridge geometrics, etc.* **What follow-up action is taken to address the red-flag item?** *The consultant is required to respond to all comments made by ODOT. Depending on the response, various actions are possible. A meeting may be necessary so both parties can fully vent their concerns.* **Describe the level of detail the Ohio DOT uses in reviewing consultant engineering bridge plans?** *There is no set way to review a set of bridge plans. If a beam size looks wrong, then a check of the beam will be made. Checking the beam size is not a requirement when reviewing plans. All bridge plan reviewers are engineers (though not all are PE). Check lists have been developed for use when reviewing plans, though the check lists are not required to be used.*

4. Does the Ohio DOT review consultant engineering bridge plans concurrently with the FHWA Division Office? *No. FHWA does not review consultant bridge plans concurrently with ODOT.* **Does the Ohio DOT review the consultant plans with the expectation that FHWA will be performing a similar type of review?** *No. ODOT has no expectations that FHWA will perform a review unless specifically asked for. ODOT has asked for help from FHWA on specific issues.*

5. What are the qualifications of the Ohio DOT personnel who conduct the review of consultant engineering bridge plans? *All are engineers. Most are PE's.*

6. What is the percentage of bridge design work that is done in-house versus the percentage that is done by consultant engineering firms? *I will limit this response to new bridges. I will not include maintenance plans such as painting a bridge, overlaying a deck, or cleaning a bridge. ODOT – 5% Consultant's – 95%*

7. Describe the structure of the Ohio DOT? *ODOT is decentralized. Project functions are controlled by the Districts while policy functions are the responsibility of Central Office.* **Is the bridge office centrally organized?** *No.* **How many district bridge offices are located in the state?** *12.* **Are consultant engineering bridge plans reviewed at the central office or district bridge office?** *Both.*