

**ATTACHMENT 57 – ANSWERS TO STANDARD SET OF QUESTIONS BY THE
OREGON DOT**

(3 pages)

Oregon DOT
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Italics represent the responses by the Oregon DOT.

1. What was your procedure in reviewing consultant engineering bridge plans in the early 1960's? *I wasn't involved in the 1960's so I can't speak to this question except to say that I doubt that we had much outsourcing of work to consultants back then.* **What is your procedure in reviewing consultant engineering bridge plans today?** *First thoroughly look over each sheet. Compare plans with requirements in the ODOT BDDM manual and compare plans to similar ODOT projects. Look for signatures of the consultant's designer, checker and reviewer to help confirm that the work was done. We normally get to review the plans during at least three (3) stages of development so there is ample opportunity to furnish comments and guide the design. Last we write comments and distribute to the project leader (PL) or consultant project manager (CPM). We normally get responses back from the consultant that address our comments.*

2. How do you ensure the QA/QC process of a consultant engineering firm is adequate? *All that we can do during review of the design is look at the plans, compare to our standards and comment. I would like to point out that consultants are selected for ODOT contracts based upon their experience and qualifications. One category that is used in the consultant selection process is demonstration of a quality QA/QC program within their company. We rely on their internal program since we are reviewing and not performing a detailed check of their work.* **In the early 1960's and today?** *Again, I was not involved in the 1960's, so I can't speak to that time period. Today we rely on a quality QA/QC program that is demonstrated to us during the selection process of selecting a consultant for the contract. Also there are checklists within the ODOT BDDM manual appendix that are to be used during design. Firms seem to be using these checklists though I am not aware of an ODOT requirement to have the consultant furnish them to ODOT during our review.* **What procedures are in-place to ensure that the consultant does not submit an inadequate design?** *The reviewing engineer is normally an experienced bridge engineer that can give a quick look at span to depth ratios and personal experience in the review process, but I am not aware of any detailed procedure.*

3. What does the Oregon DOT consider a red-flag item when reviewing consultant engineering bridge plans? *I would look for instability or items that appear weak based upon experience. Care needs to be taken to look at construction staging diagrams since partially removed structures can be unstable under traffic during staging.* **What follow-up action is taken to address the red-flag item?** *First comments are sent via the PL or CPM with a request for a response from the consultant to address the concern. Responses are then reviewed to see what has been done to alleviate the concern and assure that the design process will fix it.* **Describe the level of detail the Oregon DOT uses in reviewing consultant engineering bridge plans?** *The reviews are normally cursory reviews, but the reviewer may spend more time on the review depending on what issues are found early in the review process and also may look closer if the firm has little experience designing bridges for ODOT.*

4. Does the Oregon DOT review consultant engineering bridge plans concurrently with the FHWA Division Office? *I am not aware of any requirement to do this, but on more complex projects, we have requested FHWA review comments to accompany internal ODOT comments that were both sent to the consultant. Does the Oregon DOT review the consultant plans with the expectation that FHWA will be performing a similar type of review? I would not normally anticipate that FHWA will review and comment on projects that I review unless it is requested.*

5. What are the qualifications of the Oregon DOT personnel who conduct the review of consultant engineering bridge plans? *The reviewer would normally be an experienced structural design engineer, but it would be at the discretion of the ODOT bridge design crew supervisor.*

6. What is the percentage of bridge design work that is done in-house versus the percentage that is done by consultant engineering firms? *Before decentralization that occurred approximately 4 years ago, the percentage of bridge design work was about 80 percent in-house design and 20 percent by consultant. After decentralization, the goal is to reach 30 percent in-house design and 70 percent by consultant.*

7. Describe the structure of the Oregon DOT? Is the bridge office centrally organized? The bridge office was decentralized approximately 4 years ago. How many district bridge offices are located in the state? The state is divided into 5 region offices. Are consultant engineering bridge plans reviewed at the central office or district bridge office? Depending on the region office, the QA/QC process occurs at the region level. In some instances, the Region 2 office will help review consultant engineering bridge plans for other region offices.