

Plan Quality Based Upon Project Advertisement Period

A Plan Quality workgroup was formed to address the number of questions and addenda being issued during the advertisement process. Addressing questions and creating addenda increases immediate and intense resource demands in the proposal management unit within the Bureau of Project Development as well as the Regions. The workgroup reviewed and analyzed historical data on the number of addenda and contractor questions submitted pre-bid.

Plan Clarification Questions

The largest amount of questions at 76%, were requests for plan clarifications. The majority of these questions and subsequent addenda correspond to plan errors or inconsistencies throughout contract documents.

- Bid items not consistent between the Special Provisions, general notes, plan notes, typical sections, and/or miscellaneous quantities.
- Missing bid items for required work activities or as detailed in specific notes or drawings
- Typical sections and bid quantities/items do not match one another
- Notes reference details however no detail drawings provided
- Missing plan sheets
- Inaccurate quantities including the bid quantity listing not matching the miscellaneous quantities
- SPV's no longer match with the new Addenda
- Earthwork
- Electrical items tend to have incorrect quantities and need to have more clarification on Department/Local furnished items
- Structure and roadway plans not coordinated well

Analysis of the plan clarification type questions reinforced the need for increased comprehensive review of project documents for consistency, completeness, and accuracy. Additionally, three specific items stood out as areas for improvement.

1. Earthwork concepts and estimating during design

Examples from the most recent questions and addenda are:

- a. Need clarification on whether asphalt is included with common excavation or when it shouldn't be in embankment areas based on miscellaneous quantities or typical sections
- b. Select borrow is paid for in final position so no shrinkage factors to be used
- c. Incorrect earthwork quantities (couple examples below)
 - i. The estimated EBS quantity does not have sufficient backfill quantities
 - ii. Earthwork tables are not accurate because unusable material is included in fill numbers
- d. MSE wall granular backfill is incidental to the wall and that quantity should not be included as an embankment/fill quantity
- e. Need to remove select borrow from embankment quantity

2. More thorough expert electrical plan review

3. Incorporating structure designs into the roadway plans.

Examples from the most recent questions and addenda are:

- a. Notes don't match the plans
- b. Missing structure plans

- c. Staging half at a time locations/work doesn't match bridge plans
- d. Notes and provisions do not match
- e. Coordination between roadway work and structures not clearly depicted. Storm sewer outlet through wingwall didn't have a change in the reinforcement
- f. Missing structure items
- g. Missing structure staking items

Generally, many of the issues identified above can be reduced by devoting more time to thorough plan reviews.