

2024 ASC Region 6 Heavy Civil Problem

"Training, if done properly, does not take time—it saves it."

- Peter Kiewit, 1950





Introduction

We have selected a project that encompasses multiple aspects of heavy civil construction for the 2024 ASC Region 6 Student Competition. You will be required to estimate and present your findings to a group of Kiewit managers in an internal estimate review format.

This competition is an invaluable tool for your career development and is intended to test, challenge and improve your skills as an estimator/contractor. It is our intention to provide a realistic estimate environment while maintaining a fun and educational experience. There are many dynamic elements and challenges we face during an estimate, please keep an open mind to the *real world* scenarios we will present to you.

Problem Scope

The 2024 problem will involve multiple areas of heavy civil construction that will challenge teams to think innovatively amidst challenging site conditions. The project location is in a sensitive environment and will require detailed planning in equipment selection, employee safety and the approach to the work.

In preparation for the competition please review prior year's problems to identify an appropriate game plan for this year's competition. You can expect a brief description of the anticipated features of work as the competition gets closer. Teams and team members are advised to prepare for the competition by focusing on the following skills:

- ⇒ Problem Solving
 - Specification reading, plan reading, method analysis, scheduling, etc.
 - Construction methods, concrete placing, excavation planning and layout, equipment analysis, etc.
 - Basic understanding of environmental plans and BMPs.
- ⇒ Cost Estimating
 - Quantity takeoff—earthwork, concrete, reinforcing steel, etc. (English and Metric units)
 - Labor, material, equipment, subcontractor analysis.
 - Production calculations, crew analysis.
 - Presentation, organization, readability.
- ⇒ Pricing
 - Unit pricing extension, overhead and profit, use of estimating.
 - Error avoidance.
- ⇒ Scheduling
 - Phasing, critical path, etc.
 - Coordination of trades, utilities, etc.
- ⇒ Contracts
 - Special provisions.
 - Contract review.
 - Submittal of proper bid package.
- ⇒ Proposal Preparation
 - Project overview, problem solutions, schedule, risk analysis, etc.
 - Verbal skills, presentation graphics, charts, etc.
 - Logic, order, clarity, technical accuracy, etc.

Competition Process

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All teams will receive the project documents according to the schedule below. After a brief review period a Pre-bid Meeting will be held consisting of a photo tour of the project site and a review of the RFI process. This Pre-bid meeting is not mandatory, however attendance is highly recommended.

Each team must then estimate and assemble the required materials for the bid turn-in and oral presentation. Each team will submit their bid package to Kiewit Management by the scheduled deadline on Thursday night. Following submittal of the bid package, the judges will verify responsiveness of the proposal by reviewing timeliness, completeness, and accuracy of the pricing extensions. Bid packages submitted after the published submittal time will be considered unresponsive.

Following submittal of the bid package, teams must prepare and submit oral presentation materials. The presentation will be similar to a typical internal estimate review where the estimators will present their project understanding, schedule, estimate and risk analysis to Kiewit Management using simple visual aids and oral presentation. Teams should dress business casual for this review. This is not intended to be a sales presentation. Remember: The judges will focus on the content and quality of the estimate and emphasize the basics of construction estimating, scheduling and planning.

Competition Rules

Each team will be required to adhere to the 2024 ASC Region 6 Competition Rules (Revise August 18th, 2023). In addition, Kiewit will impose the following rules:

- ⇒ Team members will only be allowed internet access from 6:00am February 8, 2024 to 7:00pm February 9, 2024.
- ⇒ No additional persons may perform as a helper, runner, or assistant for any team. This includes food runs.
- ⇒ Requests for Information (RFIs) will only be accepted in writing using official form provided by Kiewit and emailed to Kiewit headquarters by a team member. Responses to RFIs will be provided to all teams.
- ⇒ All presentation materials are due Friday, February 9, 2024 no later than 6:00am via email or a file location designated by Kiewit. Any materials that are not submitted by this time will be disqualified.
- ⇒ Other competition rules will be reviewed at the Pre-Bid meeting on Thursday, February 8, 2024

Problem Scoring

Scoring criteria will be assigned to each main category and to subcategories to establish a consistent scoring guide for the panel of judges. Teams will be judged in the following main categories:

| Risk Analysis Write Up | | 200 points |
|---------------------------|--------|--------------|
| Bid Package | | 400 points |
| Bid Forms | | 50 points |
| Bid Tabs | | 50 points |
| Job Schedule | | 100 points |
| Back up, takeoff, pricing | | 200 points |
| Oral Presentation and Q&A | | 400 points |
| | Total: | 1,000 points |

Schedule of events

Please note that this is a tentative schedule of events. Additional details will be provided on the exact timetable during the pre-bid meeting.



Thursday, February 8, 2024

6:00am—7:00am......Distribute materials to teams

8:30am—9:00am......Pre-Bid Meeting 10:00am—

1:00pm......RFIs accepted

2:00pm—2:30pm......Owners Meeting—all team attendance REQUIRED (No coaches)

2:30—9:00pm.....Subcontractor and material supplier quotes and adjustments

3:00pm-5:00pm.....RFIs accepted

8:00pm-9:00pm.....RFIs accepted

10:00pm.....Complete bid package due (bids submitted after 10:00pm will be

rejected)

Friday, February 9, 2024

6:00am.....Presentation materials due 6:00am—

6:30am.....Presentation order is randomly selected 7:00am—

5:00pm.....Oral presentations

6:00pm.....Problem debrief by Kiewit judges

7:00pm—9:00pm.....Kiewit reception

Saturday, February 10, 2024

8:00am—12:00pm......Career Fair

10:00am.....Awards Ceremony

Contact Information

Prior to February 8, 2024 any questions regarding the Region VI Heavy Civil Problem can be directed to Russ Constable at russ.constable@kiewit.com Note: No additional specifics regarding the content of this year's problem will be provided.