



# 2012 STUDENT COMPETITION

## ***HEAVY CIVIL DIVISION PROBLEM***

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# 2012 ASC REGION 7 STUDENT COMPETITION

## HEAVY CIVIL PROBLEM

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### **INTRODUCTION:**

The project chosen for the 2012 Region VII Competition will require each team and team member to demonstrate skills in the following main categories:

QUANTITY TAKE-OFF  
PROBLEM SOLVING / SCHEDULING  
COST ESTIMATE AND PRICING  
PLANS / SPECS  
WRITTEN PROPOSAL / FORMAT  
ORAL PRESENTATION

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

Bid Submittal Requirements per Contract Documents	300
Takeoff/Estimate Items	1,100
Schedule	300
Proposal Worksheet/Binder	300
<u>Oral Presentation</u>	<u>1,000</u>
TOTAL	3,000 Points

### **ENVIRONMENT:**

The oral presentation environment will emulate a typical bid review (dress like it's an interview), discussion and presentation among fellow company employees and senior management. The bid opening has been planned to simulate that of an actual bid process.

### **SCHEDULE:**

Day One:

- DISTRIBUTION OF MATERIALS (6:00 a.m.)
- PREBID CONFERENCE (9:00 a.m.)
- WRITTEN PROPOSAL SUBMITTED – BID OPENING (10:30 p.m.)

Day Two:

- PRESENTATION MATERIALS SUBMITTED (7:00 a.m.)
- ORAL PRESENTATIONS START (8:00 a.m.)
- PROBLEM DEBRIEF (5:00 p.m.)

## **PROBLEM:**

The problem may involve application of scheduling techniques, excavation, pre-stressed concrete placement, asphalt paving, utilities, traffic control and conventional concrete for a heavy civil project. The successful team will be required to demonstrate: full knowledge of the plans and specifications, problem solving and method analysis, technical ability, cost analysis and communication skills.

## **PREPARATION:**

Teams and team members are advised to prepare for the competition by utilizing the following skills:

- I. QUANTITY TAKE-OFF
  - a. Earthwork, asphalt, concrete, etc.
- II. PROBLEM SOLVING
  - a. Specification reading, plan reading, method analysis, scheduling, etc.
  - b. Construction methods, concrete placing, excavation planning and layout, equipment analysis, etc.
  - c. Basic understanding of concrete and asphalt specifications
- III. COST ESTIMATING
  - a. Labor, material, equipment, subcontractor / supplier analysis
  - b. Production calculations, crew analysis, equipment selection, etc.
  - c. Audit trail, presentation organization and readability
- IV. PRICING
  - a. Unit pricing extension, overhead (indirect costs) and profit (margin)
  - b. Understanding and utilization of Estimating Spreadsheet
  - c. Error avoidance
- V. CONTRACT
  - a. Special provisions
  - b. Contract review
  - c. Submit proper bid package
- VI. ORAL PRESENTATION
  - a. Project overview, problem solutions, schedule, etc.
  - b. Verbal skills, presentation graphics, charts, etc.
  - c. Logic, order, clarity, technical accuracy, etc.
  - d. Total team participation

## **RULES:**

The following rules will pertain to all teams competing in the Heavy / Civil Division.

1. All teams must adhere to all Competition Rules as designated by the ASC.
2. After the problem hand out, only the 6 team members are allowed to enter your room until after your oral presentation. This includes food runners.
3. Any type of outside help, including internet, is strictly prohibited.
4. Binder submittal shall include: written proposal documents, working papers, support data and schedule. Bid forms as required by contract documents should be submitted in the separate sealed envelope that has been provided. Bid forms and binders must both be turned in at bid opening. For scoring purposes, there will be a 500-point deduction from your score if your bid is not turned in by the bid deadline.
5. All teams must submit ALL oral presentation materials to the judges by 7:00 AM on Friday, February 10, 2012, including flash drives. Teams will be limited to only those items submitted for use during their presentation, no exceptions.
6. Oral presentations will be a total of 25 minutes; this includes presentation and questions. Please allow at least 10 minutes for questions. There will a 200-point deduction for any team that does not allow 10 minutes for questions.