

2017 ASC OPEN PROBLEM PRECONSTRUCTION

Pre-problem Statement and Information Package

Presented by:



CONSTRUCTION

Introduction



Welcome Students and Teaching Professionals to the 2017 ASC Student Competition!

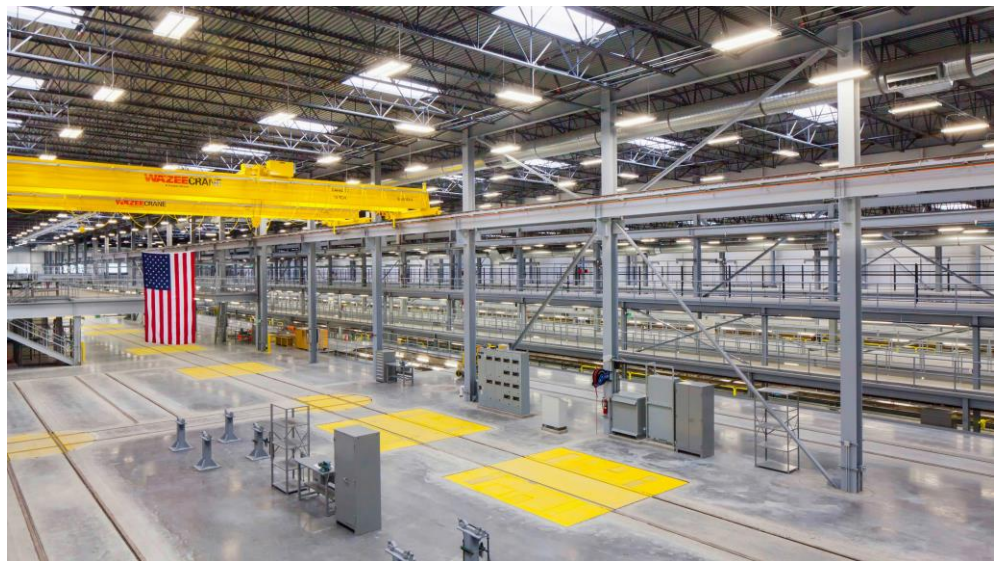
PCL Construction, Inc. is proud to be the sponsor of the Open Competition Preconstruction Problem at the 2017 ASC event in Sparks, NV.

The road to the successful delivery of a project begins with solid preconstruction planning. Preconstruction actions such as estimate turnover and review, pre-task planning, scheduling, risk analysis, and project execution planning are all vital elements to the successful execution of a project. Owner's and Contractor's alike require varying levels of preconstruction planning.

The objective of this problem is to enhance the student's experience to the every day occurrence of preconstruction tasks in today's construction environment. The problem proposed will be typical to the required tasks performed by a Contractor during the preconstruction phase of a project. Typical tasks may including the proper selection of your construction team, risk analysis, contracts, design creation, estimating, constructability review, resource requirements, budgeting, scheduling, purchasing, safety, site logistics, and contracting.

This competition is an invaluable tool for your career development. PCL hopes every team benefits from this 'real-life' experience. There are many dynamic elements to every project whether in design or under construction, including this actual project constructed by PCL. Keep an open mind to the challenges that are presented and learn from our experiences as well. At the end of the day, only three teams are awarded a placement, and recognized at the Saturday Awards Ceremony. Regardless of your final overall placement, each competitor is truly a winner when you combine the experience of the competition with the industry exposure you gain throughout the event.

All teams are to provide actual resumes of each student along with a photograph to PCL by January 20, 2017. All resume shall be in the same format, font, organizational structure, etc.



Problem Premise & Deliverables



Your team is a general contracting firm that was awarded a design-build vehicle maintenance facility (VMF) based on a very short narrative of the project requirements and you have been working with your design partners and the owner to develop the project. You and your team have recently finalized the construction documents for the facility and are completing the preconstruction as you mobilize the project site. Your team will assume the role as the general contractor in the Pre-Construction stage of the Project and attend the mandatory Competition Kick-off meeting at which time further direction will be provided for the Competition. The sample project will include civil, structural and mechanical aspects.

The scoring consists of the following phases:

- I. Request for Proposal (20 points)
- II. Meeting Deliverables (40 points)
- III. Pre-Con Meeting (Presentation) (40 Points)

Each individual section is discussed further in this document. The final problem solution and debrief will be given by PCL on Friday night at 6:15 PM.

Student Prerequisites



Successful teams and their members will need to exhibit the following skills and expertise:

- Team building and problem solving techniques
- Oral and written communication skills
- Conducting Project meetings
- Risk Analysis
- Quality Management
- Site Logistics
- Scheduling
- Understanding of process equipment systems
- Estimate development and quantity take off
- Constructability reviews
- Safety planning
- BIM modeling and clash detection
- LEED

Competition Rules



Without exception, the rules for the competition will be governed by the following guidelines:

- Adhere to the approved and posted ASC 2017 Competition Rules.
- Adhere to the PCL Problem Supplement, 'Instruction to Bidders', which are posted on the ASC website.
- Other competition rules will be reviewed at the Competition Kick-off Conference held on the morning of Thursday, February 9, 2017 at 7:00 AM in PCL's assigned room.
- Participation will be limited to twelve teams for this problem. Participation will be on a first come, first served basis.
- A maximum of one team per school will be admitted for this competition.
- Internet is allowed.
- The following software may be required for problem solving: Navisworks Freedom 2012, Primavera P6, Microsoft Excel, and Microsoft Word, Powerpoint.

Scoring



The first, second and third place teams will be recognized with a trophy and a nominal cash award at the Saturday Awards Ceremony following the career fair.

The selection process is a 3-step process. Determination of the winning team is based on a uniform grading scale for each phase of the problem submittal, for a total of 100 points. There is an added 5 point discretionary bonus for those teams that exhibit a creative aspect during the Presentation Phase. Each team will receive a summary of their scoring after the competition which will include the top, average and individual score.

Note: Points will be deducted for the overall team score by 10% per phase of deliverables turned in after the stated deadlines.

Preconstruction Phase I: Request for Proposal (RFP)



(20 points)

A Phase I proposal request will be available on the ASC website on **Monday January 9, 2017**. It will be a request for a project update, with a brief description of the project type and a list of project requirements. The deliverables of this phase may include but are not limited to:

- Project Organizational Chart – Illustrate your project team by creating an organizational chart with a role description for each person designated on the chart.
- A pricing component which will require teams to estimate a portion of the overall project and turn in a bid form for review. Also included in this section will be a subcontractor comparison for a major risk item on the project.
- Schedule and planning of self perform activities. Developing a sequence for the work as well as planning for manpower needs.
- Construction equipment planning and selection.
- One (1) copy in a 3-ring binder AND one (1) electronic copy (PDF format submitted on USB Thumb Drive) of the Phase I submission is required.

The Phase I proposal package shall be prepared by each team prior to the competition and be submitted at the Pre-Proposal Conference **Thursday, February 9, 2017 at 7:00 AM in PCL's assigned room.**

Preconstruction
Phase II:
Preconstruction
Meeting Deliverables



(40 points)

The Phase II Preconstruction Meeting Minutes outlining the required Deliverables will be distributed and discussed at the mandatory Competition Kick-off Meeting. All teams attending the meeting are then invited to submit one (1) copy in a 3-ring binder AND one (1) electronic copy of the Phase II submission. The following will be included, but not limited to:

- Pre-Con Planning
- Project Budget
- Risk
- Approach
- Schedule
- Constructability
- Creative Solutions

Each team will be provided an electronic version of the drawings and specs as required to complete the various phases of the Competition

Preconstruction
Phase III: Pre-Con
Owner Meeting
(Presentation)



(40 points)

The Preconstruction Phase II Deliverables will be presented by each team on **Friday, February 10, 2017**, exact time and location to be determined. All meeting times will be posted at the PCL ASC-designated meeting room by 7:00 AM. All teams are expected to be ready to deliver their presentation materials by 7:00 AM and present by 7:50 AM sharp. Teams may not use any materials in their presentation that are not submitted at the 7:00 AM deadline.

Meeting parameters:

- PCL will provide a projector, screen, and laptop for the presenters. The laptop will have latest version of Microsoft Office and will run Windows 7 operation system.
- Each team is to bring their presentations in this format on a USB Thumb Drive.
- Each team, at their discretion can bring any presentation materials they so choose including but not limited to poster boards, easels, pointers, handouts, etc.
- All presentations are limited to 30 minutes in length with Question and Answers portion to be expected during the meeting time limit. All meetings will end 30 minutes from the start of the presentation, and there will be time before the presentation for setup (5 min), as well as time following the presentation for judges feedback (5 min). PCL will provide a clock in the presentation/meeting room. Scoring will be based on correct solutions to the open action items AND the number and quality of discussion of other meeting agenda items covered during the meeting.

Timeline
of Events



Thursday, February 9, 2017

7:00 am – Competition Kick-off Meeting. **Phase I Request for Project Update Due.** PCL to introduce Problem Statement and Phase II Preconstruction Services Meeting Minutes and Deliverables to teams.

11:00 am - Phase II RFI's due to PCL.

12:00 pm - Group meeting to discuss Phase II RFI's.

7:00 pm - **Phase II Preconstruction Meeting Deliverables due.**

Friday, February 10, 2017

7:00 am - Post meeting times at meeting room

7:00 am – Meeting (presentation) materials due by all teams at meeting room

7:50 am to 5:30 pm – Meetings

6:15 pm – PCL to present solution set to teams (Group Meeting Debrief)

7:15 pm to 9:00 pm – PCL hosted hospitality event immediately following the debrief session.

Saturday, February 11, 2017

8:00 am to 12:00 pm – Career Fair

Time To Be Determined – Awards Ceremony

Contact
Information



Good luck in your endeavors! Any questions can be directed to the PCL representative below.

Contact: Matt Meunier
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