



ASSOCIATED SCHOOLS OF CONSTRUCTION

ROCKY MOUNTAIN REGION
REGION VI
AK, AZ, CO, ID, MT, NV, NM, UT, WY

FAR WEST REGION
REGION VII
CA, HI, OR, WA

Open Problem Preconstruction Services February 7-9, 2013

Problem Statement Phase II: Preconstruction Services

The Pacific Northwest Project

This problem is provided as a representative example of what a problem can look like but does not limit the type of future problems to the same format, requirements, or topic of focus

Problem Sponsor:



PCL Construction Services, Inc.
15405 SE 37th Street, Suite 200

**Associated Schools of Construction Competition
Preconstruction Services Open Problem
February 7-9, 2013**

Seattle, WA 98006

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I. PRECONSTRUCTION PROBLEM TIME TABLE

**CENTRAL PACIFIC ROOM ABC
THURSDAY, FEBRUARY 7TH**

Turn in Phase I RFQ	7:00 AM
Phase II Competition Kick-off Conference	7:00 AM
Written Questions (RFI's) Due	9:00 AM - 10:00 AM
Visits to Student Rooms	10:30 AM - 11:30 AM
Group Meeting to Discuss RFI's	12:00 PM
Visits to Student Rooms	2:30 PM - 4:00 PM
Phase II Meeting Deliverables Due/Draft Order Selections	9:00 PM

**CENTRAL PACIFIC ROOM ABC
FRIDAY, FEBRUARY 8TH**

Presentation Start Time Selections	7:00 AM
Presentation Materials Due (All Teams)	7:00 AM
Presentations Start	7:50 AM
Project Debriefing	6:00 PM - 6:45 PM
Reception	7:00 PM - 9:00 PM

SATURDAY, FEBRUARY 9TH

Career Fair	8:00 AM - 12:00PM
Awards Banquet / Luncheon	12:00 PM

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II. PREFACE

Welcome to the 2013 ASC Student Competition. PCL Construction Services, Inc. is proud to be the sponsor of the Preconstruction Services Open Problem at the 2013 Competition in Sparks, NV. PCL Seattle District is one of 28 operating districts of PCL Construction Services, Inc.

We believe this problem will enhance each student's experience to the everyday occurrence of preconstruction services in today's construction environment. Clients require varying levels of preconstruction services including design coordination, budget development and construction planning.

The problem proposed will be typical to the services provided to a client including the proper selection of your construction team, and in some cases, consultants and subcontractor team. Other services include risk analysis, contracts, design creation, estimating, value engineering, logistics planning, constructability review, resource requirements, budgeting, scheduling, purchasing, safety and contracting.

This competition is an invaluable tool for your career development. It is designed to enhance and expose each team member to different facets of the construction industry. Each team members' technical knowledge of estimating, scheduling, planning, leadership, and communication skills will be put to the test during the next two days.

PCL hopes every team benefits from this 'real-life' experience. We are here to support the ASC and its members, so please ask questions after the competition is complete or any time throughout the school year.

Understand there are many dynamic elements to every project whether in design or under construction, including this actual project under construction by PCL. Please keep an open mind to the challenges that are presented during this event. Learn from our own project experience, as well!

At the end of the day, only three teams are awarded a placement and these teams will be recognized at the ASC Awards Ceremony on Saturday. Regardless of your final overall placement, each competitor is truly a winner when you combine the experience of the competition, coupled with the industry exposure you have gained throughout the event.

We look forward to great thinking, fellowship and sportsmanship throughout the week. We are proud to serve our great industry with this problem and advancing construction education to all the member schools, faculty and students of the Associated Schools of Construction! Good luck!

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III. PROBLEM SCENARIO

Congratulations! The Owner project team of PRIHD Facilities (PRIHD) and our partners has selected your firm to provide preconstruction services based upon your response to the Phase I RFQ. We are excited to continue with the preconstruction process, and look forward to your input in making this project a success. The next step in the process will be for your firm to assume the role of General Contractor during preconstruction, the preparation of Phase II Preconstruction Services deliverables, followed by a weekly coordination meeting. Your team will develop the Phase II Preconstruction Services deliverables based upon the previous week's meeting minutes, and the provided attachments and design documents prepared by PRIHD and their consultants.

Your team will be asked to provide various deliverables as defined in the succeeding portions of this Problem Statement. You must submit your documentation to the Owner project team by 9:00 PM on February 7, 2013 and be prepared to present your work to the Owner project team in a preconstruction weekly meeting on February 8, 2013.

An interim progress meeting is scheduled for 12:00PM on February 7th. Any questions should be delivered, in writing on the Request for Information (RFI) form provided to the Owner project team in the Central Pacific Room ABC between 9:00 and 10:00 AM. Do not include multiple unrelated questions on the same RFI. Utilize a separate RFI for each unrelated question. Each team is limited to five (5) RFI's. Responses to these RFI's will be provided at or before the 12:00 PM meeting. The RFI form is provided in Section X - Supplemental Information.

For the oral presentations (precon meetings) on Friday, all teams shall include students representing at a minimum your project executive, preconstruction or project manager, sr. estimator, project superintendent and quality control engineer. You will be allowed 30 minutes for the team presentation (meeting), which will include questions and answers from PRIHD and our partners. Each member of your team is expected to play a role during the meeting, and participate in the meeting discussion.

Electronic copies of ALL files to be used by your team during the presentations must be provided to the Owner Project team on a USB thumb drive by 7:00 AM on Friday, February 8, 2013. A laptop computer and projector will be available for your use during your presentation (meeting). This computer will have Windows 2007 operating systems, and the following software: Word, Excel, PowerPoint, Adobe Acrobat, Suretrak, Primavera P3 and P6, Navisworks Freedom 2013 Viewer, and DWG TrueView 2012. Your team is free to use your own laptop, but all files used during the presentation must be those provided to the Judges by the 7:00 AM deadline.

At a minimum, your team should cover the required topics as identified in the provided meeting minutes. As the General Contractor you will be expected to run the precon meeting, and ensure that time is spent on each of the required topics.

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PROJECT INFORMATION

The Pacific Northwest Project consists of multiple components: a fish ladder and hatchery at the Chief Joseph Dam, a pipeline from a well field to the hatchery (wells were previously drilled under a separate contract), two (2) water source tie-ins to the dam, a housing complex to house hatchery workers, and two (2) fish acclimation ponds.

Contractually, the project was broken down in phases. Under the first phase, the General Contractor (GC) constructed the housing complex and two (2) acclimation ponds. The second phase of the project consists of a hatchery complex and pipelines to three (3) different water sources to supply water to the hatchery.

The housing complex is located approximately one mile from the fish hatchery in Bridgeport, Washington and includes four (4) - single story, wood framed houses for permanent hatchery workers. There are additionally four (4) RV structures, six (6) campsites and a commons restroom to service seasonal hatchery workers at the housing site.

Located approximately 35 and 41 miles north of the housing site respectively, the Omak Acclimation Pond and Riverside Acclimation Pond each consist of a 55,000 cubic foot earthen pond with 45 mil liner, concrete inlet and outlet structures at the pond, a concrete intake structure located in the Okanogan River, and associated pipelines.

The hatchery complex is located on the right bank of the Columbia River just below the Chief Joseph Dam and approximately 1.5 miles from the housing site. Work at the hatchery complex consists of a hatchery building, an office building, a storage building, a head box to join three (3) water sources, 40 raceways, three (3) fish rearing ponds, a fish ladder/spawning facility, and a cleaning waste pond. The hatchery complex will be ready for turnover to the Owner by the end of May 2015.

The three (3) water sources used to supply the fish culture requirements include a 40 cubic foot per second groundwater pipeline from a well field approximately 13,000 feet north east of the dam, a 24' diameter secant pile that will connect to the relief tunnel at the base of the dam and deliver 20 feet per second of water, and a screened intake on the upstream face of the dam that will deliver water at 60 cubic foot per second.

The project Owner during construction is PRIHD Facilities; however, the facilities will be turned over to the Confederated Tribes of the Colville Reservation upon completion. Lead designer for the project is Tetra Tech, who is also acting as the Owner's Representative.

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IV. PROBLEM OUTLINE

Organize and tab your Deliverables submittal according to the following outline. Include only the information requested in **Section V, Submission Requirements**. Remember to be as brief as necessary to convey your points.

1. Meeting minutes
2. Project Schedule
3. Freezer/Cooler Bid Recap
4. Relief Tunnel Crane Pad
 - a. Work Plan and Safety Narrative
 - b. Site Plan
5. Broodstock
 - a. Cofferdam Narrative and Pricing
 - b. Drawings
6. Raceway Wall Finishes

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V. SUBMISSION REQUIREMENTS:

The appearance and organization of proposals and reports is important in our industry, as it is often our first opportunity to interact with a new client and/or impress the upper management in a company. We want them to see the professional image we are trying to portray and be able to find and understand the information we are presenting. Points will be awarded in this section based upon appearance and organization, as well as the clear and concise responses to the requirements of Exercises 1-6 listed below. One (1) paper copy in a 3-ring Binder and one (1) electronic copy on USB Thumb Drive of your Phase II documents are to be submitted.

*If you utilize a new company logo for your submission, include it on the cover of the proposal book. **Also, include the school logo in the lower left hand corner of the proposal cover.** This assists the judging team with identifying your team's submission.*

A USB drive has been included with some of the forms referenced so you do not have to recreate them. **Always**, check formulas to ensure that proper extensions are made.

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1. Meeting Minutes

Exercise Narrative:

Meeting minutes are used in our industry at all formal meetings to track and document the action items expected to be performed by meeting participants. It is important to capture the action items in a clear and concise manner, and to include expected due dates where appropriate. In this exercise, your team will use the provided meeting minute template to complete the minutes from the previous week's meeting.

Your team will also create an agenda for the preconstruction meeting (presentation) to be held on February 8, 2013. Your firm has been tasked with conducting the preconstruction meetings, and you are free to set the agenda how you see fit. Remember that PRIHD and their project partners are all valuable team members, and these meetings are intended to be interactive and collaborative.

Exercise Process:

Using the Meeting Minutes template provided, complete the meeting minutes from the previous week's preconstruction meeting. Include the following:

- Add names and info for each of your team members to the Attendees list
- Insert name of safety rep to be proposed to USACE in item #1.1
- Insert the name of your firm in all locations marked **(Contractor)**, and insert your firm's initials in locations of the Action column marked **(GC)**

Provide an agenda for this week's preconstruction meeting. You may use the meeting minutes as a template, or provide an agenda in an alternate format.

Deliverable:

Meeting minutes from previous week's meeting, AND agenda for upcoming meeting.

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2. Project Schedule

Exercise Narrative:

As part of your review with PRIHD and design team, you will be required to present a complete, workable Critical Path Schedule (CPM) to plan the work within the guidelines prescribed below. Schedules created during the preconstruction phase of the project start out at a very summary level and expand as the preconstruction work progresses. Since the preconstruction work in this problem is at the 100% design development stage the schedule will have more detail than a summary level schedule, however; it will not be a complete detailed schedule for all phases that would be ready to issue to construction. **In this exercise your team will be required to review the provided schedule for accuracy, add activities for the Preconstruction phase, and revise and/or expand the section of the broodstock cofferdam work based on information provided in Exercise #5 (below).**

A Suretrak, P3, and P6 format schedule template, and PDF copy has been provided to you on the flash drive. This template has been formatted with all the minimum required construction information as noted below and you are to assume that this is the current Construction schedule that your firm is developing for the Owner. PRIHD has asked your team to revise the schedule to include activities for the Preconstruction phase, and to update the Brood Stock Holding section to include activities associated with the cofferdam. The teams may use this schedule template to complete this exercise or utilize another scheduling program such as Microsoft Project. If your team recreates the schedule without the use of the supplied template, you will still be responsible to meet the criteria below.

Exercise Process:

The following criteria explain the background information and requirements of the CPM schedule your team will present:

1. General Schedule Criteria:
 - a. Presentation Criteria:
 - i. Format:
 1. Suretrak, P3, or P6 is recommended; or other scheduling software may be utilized for this exercise.
 2. The template has the minimum formatting required: Activity ID, Activity Description, Original Duration (OD), Early Start (ES), and Early Finish (EF). Other columns can be added as your team determines necessary.
 3. At a minimum, utilize the organizational structure as already established in the template. Additional activity codes can be added as your team sees fit.
 - ii. Activity Count: 200-300 activities

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- iii. Show the logic between activities, no open-ended activities are allowed (all activities must have a predecessor and successor, except project start and completion activities/milestones)
- iv. Clearly show the critical path of the schedule
- v. Organize activities so they are easy to read, activities are grouped intuitively and the schedule flows well.

b. Contractual Criteria

- 1. Project Start Date for Preconstruction (Notice to Proceed): January 1, 2013
- 2. Preconstruction Period: 44 weeks
 - a) Assume two more stages of Contract document review – 75% CD's, and Issued for Construction (IFC) documents. Contract allows for 90 Calendar Days to produce 75% CD's. Document review time for PRIHD is 28 Calendar days, and TetraTech will have 14 Calendar days to respond to review comments.
 - b) Contract allows for 30 Calendar Days to produce IFC documents, and PRIHD will have an additional 14 Calendar Days to complete approval of IFC docs.
 - c) PRIHD and GC will need to obtain required permits for this project.
- 3. Construction Duration: 83 weeks
- 4. Construction must be 100% complete by May 31, 2015 (Final Completion).
- 5. Calendar #1 in the template has been set up with the required holidays as "Non-work" days for this project, and is in Work Days.

2. Preconstruction Phase Assumptions:

- a) The Architect and consultants are currently 100% complete with the design development (DD) documents, and PRIHD will complete DD document review by the end of February, 2013.
- b) The permitting agency will allow 75% CD's to be used for permit drawings, and current lead time for required permits is expected to be 60 days.
- c) Estimates/constructability reviews will be required at 75% CD, and IFC document milestones.
- d) Assume each design phase will require review periods noted above.
- e) Estimates will be required by Contractor at each design stage and can be completed concurrent with PRIHD's review; allow 10 work days (two weeks) for 75% estimates and 15 work days (three weeks) for the final estimate.
- f) Constructability reviews will be required at each design step; allow 8 work days for each review. These can be performed concurrent with the estimate preparation.
- g) Preconstruction activities can be shown as Calendar Days or Work Days, but be sure that durations meet the stated requirements above.

3. Construction Phase Assumptions:

- a) Original durations for construction activities shall be derived on a rough quantitative basis. You may use RS Means or other productivity data resources to help if needed. The format of durations is typically work days.

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- b) Use Activity Codes provided on attached schedule (AREA, PHASE, SCOPE). You may add to the list of codes provided as needed, but try to avoid adding new Activity Code sections.
- c) Scheduling of all work should support the assumptions made by Exercises below.
- d) For the purposes of this exercise, assume that all submittals and procurement will be completed in an 80 day period beginning at the start of construction (no additional ties to construction activities are required at this time).
- e) Don't forget to include punchlist and commissioning times as appropriate for the various project components (must complete to achieve final completion).
- f) Review the documents provided thoroughly. Ensure that your schedule encompasses as much of the work possible in the limited number of activities you are required to provide.

General comments:

- 1. Do not resource load or cost load your schedule
- 2. Include the following milestones at a minimum: 75% CD's, IFC Documents, Permits, Notice to Proceed (for Construction), and Final Completion.
- 3. Be sure to tie all activities to a predecessor and successor, open-ended activities are not allowed (except as noted above).
- 4. When it comes to scheduling, there may be more than one way to achieve the required results. Ensure that your team can substantiate and explain all of the assumptions and decisions made in the process of developing your schedule.

Deliverable:

- 1. *Updated Preliminary Schedule. Must include a paper copy and .pdf copy of your schedule. Be sure to add your firm's name and school to the Footer.*

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3. Freezer/Cooler Bid Recap

Exercise Narrative:

Your firm is working through the creation of bid packages and buyout of subcontractors as completed design documents become available. One long lead item identified by your firm is the freezer/cooler unit. Please remember that because this project has TERO requirements, a preference should be given to tribal subcontractors and suppliers when compared to non-tribal firms. The preference is a pro-rated scale depending on the size of the Scope of Work. For this exercise assume the preference for this dollar amount to be 10%.

In this exercise your firm has received bid proposals from three (3) subcontractors for the recently redesigned Freezer/Cooler. Your firm is to recap the bid proposals and make a recommendation to PRIHD for selection of this subcontractor.

- Complete exercise 3 to determine the value of this Scope item, and the recommended subcontractor.
- Be sure to apply the TERO bidding preference to tribal/native American subcontractors.

Deliverable:

Completed Bid Recap with recommendation for selected subcontractor

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4. Relief Tunnel Crane Pad

Exercise Narrative:

Water from multiple sources is provided to the hatchery facility via pipelines, and one of the most challenging aspects of this water supply system is the Reservoir Outlet and Relief Tunnel water lines. The relief tunnel is a 24' diameter secant shaft connected to the relief tunnel piping at the base of the dam and will deliver 20 feet per second of water. To accommodate the water flow uphill to the hatchery, a pump station is required (identified as Relief Tunnel Pump Station and RTW Pump Station on the provided site plans). This pump station involves installation of a secant pile shaft and is located in a difficult sloped terrain that is armored with Rip Rap. You are to assume that the rip rap layer is approx 10' thick, with structural fill below.

To drill and install the secant shaft for the pump station, your drilling subcontractor will be using a BG-40, a Leffer 1.5 Meter Oscillator, and a 40 ton crane (reference equipment data sheets). A drawing has been provided that shows the approximate location of the required crane pad and access road necessary for the drilling and crane equipment. The slope of the access road will be limited to 8% max up to the crane pad, and your drilling subcontractor has indicated that the crane pad will need to be approx. 60 feet wide by 100 feet long. The rip rap above and below the crane pad and access road will need to be sloped back at a slope of 1 ½ H to 1 V to prevent rip rap from falling on the road and crane pad; and some shoring or MSE walls may be needed in addition to the sloping of the rip rap. The crane pad will need to be a level work surface. For this exercise, your team is to provide a work plan for the Relief Tunnel crane pad and access road.

Exercise Process:

Documents provided for this exercise include the following:

- Site plans and pump station drawings
- Sketch with approximate access road and crane pad
- Drilling equipment data sheets

Using this information, your team is to determine the location of the access road and crane pad, and the sloping and/or temporary shoring required for the rip rap. Create a work plan for installation of the access road and crane pad for review by the Owner. At the minimum your plan should include the following:

- A narrative of your proposed work sequence for installing the access road and crane pad.
- An analysis of the safety hazards and ways to mitigate the safety risks (performing a Job Hazard Analysis or JHA is suggested).
- A site plan showing the locations of the access road and crane pad with dimensions; locations and extent of areas of rip rap to be sloped; types and locations of required shoring walls.

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Your team is free to decide how to present this information to the Owner, but your plan must be as clear and concise as possible. Hand-drawn sketches, CAD drawings, or models are all acceptable methods of creating your site plans.

Deliverable:

Relief Tunnel Crane Pad work plan including narrative, safety analysis, and site plan.

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5. Broodstock (cofferdam)

Exercise Narrative:

The Broodstock structure is attached to a fish ladder located at right bank of the Columbia River. Constructing the fish ladder and broodstock foundations involves working in and immediately adjacent to the river's edge. The amount of dewatering and protection for your crew's safety is highly dependent on the elevation of the river. The elevation of the river varies throughout the year depending on the amount of water spilled through the dam from the reservoir.

The original Bid Documents showed the edge of water to be around elevation 780 +/- . The river elevation information originally provided indicated that water levels could be lowered to the point where the Broodstock structure would be able to be built in the dry, and that minimal dewatering would be necessary to construct the fish ladder. The US Army Corps of Engineers had since provided PRIHD with updated historical river elevations, and in-water work windows for purposes of planning this work. Reference the Tailwater Data provided which indicates that river elevations have been recorded to be as high as elevation 793. The first spill season for the dam after the start of construction is set to expire on January 28, 2014, after which work can begin on the cofferdam.

Based on this new information, the Owner's designer has issued updated drawings for the Broodstock and fish ladder showing the edge of water at elevation 782 +/- to account for these higher water elevations. Water elevations will most likely be at or around **784 +/-** during construction of the fish ladder and Broodstock structure. As a result of this information and drawings it has been determined that work originally planned to begin in November, 2013 and intended to be performed in the dry will now be impacted and will require additional precautions to be taken. Portions of the Broodstock holding tank structure, and the entire fish ladder structure will now need to be constructed below known river elevations, which results in adding a coffer dam and additional dewatering requirements.

Your firm will need to determine the extent of this impact to the Project Schedule and Budget and report back to PRIHD with your analysis of those impacts. For this exercise your team is to provide a matrix that includes each option and identifies the rough order of magnitude cost, cofferdam type, size (including drawing to depict extent of cofferdam) and amount of schedule delay. The schedule impacts for this exercise will be included in further detail in the Schedule Exercise (reference Project Schedule exercise #2 above).

Exercise Process:

Using the information provided for this exercise, and information provided in the previous week's meeting minutes, provide an impact analysis of this design change. Your analysis should include at a minimum the following:

- Narrative explaining the impacts to the Project, and recommendations for the revised type and size of cofferdam.

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- Site Plan showing the extent of the cofferdam (can be hand-drawn sketch, CAD drawing, or model).
- Cost matrix
- Schedule (to be included as part of Project Schedule exercise #2 above)

Use the project plans and the following information as a basis for developing your plan:

- CJ Dam Tailwater Data
- Broodstock Bid Drawings
- Broodstock Final Drawings
- Cofferdam Options worksheet template with coffer dam cost/install considerations

Deliverables:

Impact analysis narrative, site plan and/or coffer dam drawings, Cofferedam Option worksheet, schedule (to be included in Schedule Exercise)

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6. Raceway Wall Finish - Constructability Review

Exercise Narrative:

The Owner has requested that the Teams provide a constructability review of the specifications for Cast-in-place Concrete wall finish at the Raceways. The goal of a constructability review is to identify and resolve issues in the pre-construction phase, thus reducing schedule and cost impacts during construction.

For this exercise the Owner has identified two areas of concern, formwork selection and curing/finishing process, which requires each Team's review and analysis. In order to prevent the spread of bacteria and water-borne disease between the adjacent sections of raceways, it is imperative to have smooth uniform raceway walls, and to limit the amount of joints and cracks in the walls. The type of wall finish and amount of finishing work after formwork removal depends heavily upon the type of formwork used, and curing techniques used post concrete placement.

Exercise Process:

Specification section 033000 (Cast-in-Place Concrete) provides project requirements for the cast-in-place concrete. Acceptable formwork for walls includes plywood, metal, or other approved panel materials. Using the attached cost analysis template and formwork/finishing options unit rates and costs, determine the type of formwork and curing method your Team would recommend and justify your selection with a cost analysis of the various options available.

Contract Documents:

- Specification Section 033000 (Cast-in-place Concrete)
- Raceway Wall Drawings
- Cost analysis template and formwork/finish options information

Deliverables:

Formwork and finish selection narrative, completed cost analysis form.

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VI. COMPETITION SCORING SYSTEM:

Item	Description	Points
	Phase I Request for Qualifications (RFQ)	20
	Phase II Preconstruction Services Deliverables	40
	Phase III Presentation (Meeting)	40

Note: Late Submittal Point Deductions Below

Time Adherence Scoring

It is critical to submit materials on time. For those who do not adhere to the published times, points will be deducted according to the following schedule:

- Phase I Submittal
 - (on time = 0, up to 1 min late = -1, up to 10 min late = -2, later = -4)
- Phase II Submittal
 - All teams submitting late on Phase II will be disqualified from participating in the Phase III presentations.
- Phase III Presentation
 - (on time = 0, up to 1 min late = -1; up to 2 min = -2; 3 = -3; 4 = -4; later = -5)

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VII. LIST OF JUDGES:

Panel:

Trever Gallagher, Project Manager
(425) 454-8020
Acting as PRIHD Contracting Officer

Seattle District
15405 SE 37th Street, Suite 200
Bellevue, WA 98006

Brad Hendrickson, Construction Manager
(425) 454-8020
Acting as PRIHD Project Manager

Seattle District
15405 SE 37th Street, Suite 200
Bellevue, WA 98006

Tony Sturgess, Operations Manager
(425) 454-8020
Acting as US Army Corps of Engineers Rep

Seattle District
15405 SE 37th Street, Suite 200
Bellevue, WA 98006

Tyler Kautz, Project Manager
(425) 454-8020
Acting as TetraTech Engineer of Record

Seattle District
15405 SE 37th Street, Suite 200
Bellevue, WA 98006

Craig Warner, Construction Manager
(818) 246-3481
Acting as Colville Tribe Facility Manager

Los Angeles District
700 N. Central Avenue, Suite 700
Glendale, CA, USA 91203

Alternates:

TBD

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VIII. COMPETITION RULES:

The rules for the competition are designed to provide each team with an equal opportunity to apply their knowledge in developing their respective solutions and an equal opportunity to present their problem solutions to the judges. The following rules apply to the Preconstruction Services Open Problem and supplement the ASC Competition Rules:

1. While the competition is in progress, only the six students identified as being team members shall be present in the teams' room. Faculty advisors may not interface with their team once the competition has begun.
2. One (1) paper copy and One (1) electronic copy of the proposal must be turned in at the prescribed time. **Proposals will not be returned to the teams.** If you require some of the material in your proposal for your oral presentation, please make the appropriate copies prior to your submission of the written problem for your use.
3. The number of computers per team and use of the internet is to be as outlined in the ASC Competition Rules.
4. Once the presentations begin, only the teams who have presented their solutions may be present at the presentations of subsequent teams. This will mean that the first team up gets to see them all, while the last team does not get to see any of the others. The purpose of this rule is to prevent those participating in later sessions from gaining an advantage as to the contents of previous sessions.
5. Presentation materials for all teams are to be turned in to the judges prior to the first interview, by 7:00 AM on Friday, February 8th. No other presentation material will be allowed into the presentation that is not turned into the judges by this time. NO EXCEPTIONS.
6. All decisions of the judges are final.
7. The problem presented was an actual project built by PCL. To avoid any conflict of interest or unfair advantage, any student who may have potentially worked on the project in any way shall identify themselves to PCL immediately. This issue will be reviewed, and if appropriate we may request that an alternate be assigned to the project. PCL shall make the final decision as to equity in such a case.
8. Points will be deducted if proposals are submitted late per the Scoring System noted in Section VI. Written proposals will be due as indicted in Section I. The submission location will be announced at the commencement of the competition. Other deliverables will be as noted elsewhere in the Problem Statement.
9. No phone calls, emails, or communication of any kind shall be made to the Owner, Architect, Engineer or design consultants that may be listed in the documents provided for this competition. They are aware that no team is to contact them and have been notified to contact the judges if any contact occurs. Contact with the any of the above shall disqualify team from the competition.
10. Do not submit any extraneous materials with your written proposal, including company profiles, marketing materials etc. Please limit your response to the information requested. Be brief, clear and concise.
11. Any information concerning the size and scope and timelines provided in previous correspondence has been superseded by the information provided in the written problem statement and is not to be used in response to Phase II.
12. The last and most important rule: Have fun, learn, and develop new relationships.

Violation of any of these rules will be grounds for disqualification from the competition

Associated Schools of Construction Competition
Preconstruction Services Open Problem
February 7-9, 2013

IX. COMPETITION EVALUATION FORM:

Please complete the evaluation form included in the Supplemental Information section. Your feedback is important to our team as we strive to continually improve the problem in years to come. Please be honest and forthright with your responses.

Please complete one questionnaire per team and turn it in at the problem debrief meeting. This form will be your admission ticket to the Debrief and Answer Session.

X. SUPPLEMENTAL INFORMATION

<u>Description</u>	<u>Electronic Form on USB Thumb Drive</u>
0.0 RFI Form	X
1.0 Meeting Minutes Instructions Meeting Minutes template	X
2.0 Project Schedule Instructions Suretrak/P3 Project Schedule Template Primavera P6 Project Schedule Template Project Schedule PDF's	X X X
3.0 Freezer/Cooler Bid Recap Instructions Freezer/Cooler Sub Quotes Bid Recap Template	X X
4.0 Relief Tunnel Crane Pad Instructions Site Plans and Pump Station Drawings Crane pad and ramp sketch Drilling Equipment Data Sheets	X X X
5.0 Broodstock (cofferdam) Instructions CJ Dam Tailwater Data Broodstock Bid Drawings Broodstock Final Drawings Cost Analysis Form template and cofferdam options information	X X X X
6.0 Raceway Wall Finish Instructions Specification Section 033000 Cast-in-place Concrete Raceway wall drawings Cost Analysis Form template and Formwork options information	X X X
DWG Files (Hatchery Site Plan, Grade Elevations)	X