

Meeting Time: 10:00 AM to 12:30 PM Page: 1 of 6  
 Meeting Location: Arlington Utilities Admin Building Date: 27 June 2007  
 Meeting Date: 20 June 2007 K/J Job No.: 0597002\*02  
 Project: City of Arlington WRF/BCF Improvements and Expansion

**Persons Attending:**

<i>Kennedy/Jenks</i>	<i>City of Arlington</i>	<i>Other</i>	<i>Organization</i>
Chris Kelsey	Jim Kelly	Dick Warren	Special Consultant
Eric deMontigny	Len Olive	Katy Isaksen	Katy Isaksen & Associates
Tom Giese	David Randolph		
Mark Cullington	Menglou Wang		
	Mike Wolanek		
	Kelli Hale		
	Kris Wallace		

**Subject:**

Jim Kelly chaired the meeting and opened the discussion. Chris provided a handout packet with meeting agenda, project contact list, project organization chart, QA/QC Program Summary, sample QC checklist, project schedule including identification of responsibility for each task, Schematic Design Summary, and samples of design deliverables (control description, life-safety code review, hydraulic profile, process flow diagram, design criteria, construction phasing schematics, and process & instrumentation diagrams [P&IDs]). Meeting topics and discussion are documented below:

1. Introductions: Jim asked the attendees to identify themselves and their role in the project. Persons attending and their organizations are listed above.
2. Introduction of Design Team Groups

Kennedy/Jenks Consultants – Lead Engineers:

Chris introduced project leaders present: Eric deMontigny will serve as Project Engineer, Tom Giese will lead the wastewater treatment plant (WWTP) design, and Mark Cullington will lead the biosolids composting facility (BCF) design. Chris also described discipline leads and their office locations. The majority of the work will be performed out of K/J’s Federal Way office (WWTP), with substantial effort in Portland (BCF) and San Francisco (structural, architectural)

Dick Warren – Technical Review and Value Engineering:

Dick identified his position as City technical review specialist and value engineering support.

Katy Isaksen & Associates – Funding Program:

Katy identified her role preparing the project funding plan and leading the funding pursuit.

City Team:

City team members identified their roles in the project:

- Jim Kelly – Project Manager, Utilities Manager
- Len Olive – Project Principal, Public Works Director
- David Randolph – System Processes and Integration, WW Utility Supervisor

Menglou Wang – Engineering/Standards, City Engineer

Kelli Hale – Senior Engineer

Mike Wolanek – Water Quality/TMDL/River Sampling Plan, Water Quality Specialist

Kris Wallace – Budget/Funding

Other Team Members (not present):

Jim noted that a local firm is being considered by the City for public outreach and education. Cascade Engineering (subcontracted to K/J) will provide professional land surveying services. GeoEngineers (subcontracted to K/J) Everett office will provide geotechnical engineering services. Dr. H. David Stensel (Professor, University of Washington) will provide subconsulting services to K/J for wastewater treatment processes. ECS, a biosolids composting engineering firm, will provide technical advisor services to K/J for the BCF. ESA/Adolfson is subcontracted to K/J, providing permitting services and environmental consulting.

3. Project Communications

Included in the handout packet is the Project Contact List. Chris went through the list, asking for corrections and additional information. E-mail addresses for members will be added. It was agreed that Kris Wallace should be added to the list. Katy's phone number was corrected.

Other project communication issues discussed are as follows:

- 1) Chris suggested continuation of direct communications between City and KJ team members, such as David Randolph and Tom Giese on WWTP issues and Kevin Bleeck and Mark Cullington regarding the BCF. It was agreed that this process could continue, but Jim and Chris need to be copied on **ALL** correspondence and communications.
- 2) All communications to and from K/J subconsultants need to be made through Chris, who will coordinate with City as necessary.
- 3) All communications directed to the K/J team from Dick or Katy should be through Chris, with copy to Jim.
- 4) Deliverable documents (electronic) – electronic transfer of documents and plans/specifications to the City was discussed. Continued utilization of the FTP site for electronic delivery was agreed to pose some risk, so alternate means were discussed. Direct emails to City personnel will be acceptable as file size allows and for interim deliverables; however, a centralized system is necessary for document control. Chris noted that Kennedy/Jenks will have an internal Sharepoint site for this purpose, but that in its current configuration it does not allow external access. Jim stated that he will work with City IT staff to create a site for City staff to utilize for document control and sharing. Chris and Jim will coordinate on protocols for transfer of files between the two sites.

As individual deliverables are developed, they will be transmitted to the City point person (to be designated by Jim) for posting on the City site. Drawing files will be transmitted in PDF format.

- 5) Project Title – Jim suggested consideration be given to renaming the WWTP to “City of Arlington Water Reclamation Facility.” It was agreed the name was appropriate and potential ramifications of renaming will be contemplated.

#### 4. QA/QC Program

Eric deMontigny reviewed the QA/QC program for this project. He identified procedures that will be utilized and how K/J will validate that those procedures have been performed - a QA/QC memo that accompanies deliverables. An outline of the QA/QC program is attached to these minutes. Subconsultants will have similar QA/QC requirements.

Subcontractor conformance with the QA/QC protocol was discussed. At a minimum, K/J reviews all subconsultant deliverables. Eric and Chris will consider additional requirements. K/J will provide CAD standards to the survey subconsultant.

Both City comments and value engineering comments will be incorporated into the subsequent submittal.

#### 5. Coordination with Funding Program

Katy noted that the first draft of the Finance Plan is due at the 10% design stage. Coordination and timing of the Plan with design deliverables was discussed. The Plan will slightly lag the design deliverables. Funding requirements identified in the Plan will be based on opinions of probable construction cost developed by K/J at the 10% and 30% design stages.

Katy asked that the construction costs be projected forward to the planned construction period. K/J agreed to do this.

The subject of cost accuracy at the various design levels was also discussed. As the design progresses, the range of cost variability decreases. Everyone shared concerns about cost escalation and conditions in the market. Menglou will provide recent City bid tabs to provide information for local conditions.

Chris also noted that he would provide Jim with follow-up information on funding opportunities for reclaimed water projects that were identified at the June 12 PNCWA Reclaimed Water Workshop held in SeaTac.

#### 6. Schedule/Deliverables

Chris led a brief review of the overall schedule, highlighting the near-term deliverable milestones and the commitments of all parties during those deliverable periods.

Discussion ensued regarding various scheduling topics. They are summarized as follows:

- 1) The BCF mixer was identified as a separate contract procurement package that will be expedited. During the 10% design, Mark and David will review specifications and other requirements, and potential suppliers, including manufacturer of the existing unit. David and Jim are meeting June 21, and mixer procurement is one subject they will discuss. David will report back to Mark on results of discussion.
- 2) Dick noted that development of construction sequencing is not specifically identified in the schedule. Tom agreed, but noted that it is listed under the scope in the schematic design. The task will be identified in the schedule.

- 3) Coordination of survey and geotechnical exploration with plant operations: Chris asked for times that would be convenient for plant operations. David said anytime during regular hours is generally OK, but submit proposed dates/times for clearance.
  - 4) Scheduling of Membrane Technology Workshop is needed (see below, under Action Items).
  - 5) It was agreed that the design stages (10%/30%/60%/90%) for the WWTP as shown in the schedule are appropriate.
  - 6) Dick asked that consideration be given to expediting the design process for the BCF, so that the improvements/expansion can be constructed Summer 2008 (funding is available and it may alleviate capacity issues). K/J and the City agreed to review the schedule at 60% design completion and expedite the bidding schedule if the City feels it is feasible. Consideration can also be given to changing from a 10%/60%/90%/100%/Final submittal schedule to a 10%/60%/100%/Final submittal schedule as a means of expediting the BCF design.
  - 7) Jim would like to establish the current schedule as the baseline, and that we would monitor progress by comparing completion dates of milestones with the baseline schedule. Jim stated he would do a post-project follow up on the schedule.
  - 8) Coordination with agencies to expedite BCF construction: City is hoping to get a letter next week from Ecology approving the Engineering Report. Dick suggests City's response should state the team's intent to expedite and give them a rough date for submittal. It was noted that Puget Sound Clean Air Agency and Ecology's Solid Waste Program (Marietta Sharp) need to be prepared to review design deliverables. Jim and David will do this.
7. First Deliverable – 10% Design Memoranda for WWTP and BCF
- Tom and Mark discussed the 10% Design Memos for the WWTP and BCF, respectively. They identified materials that will be included in the draft design memo deliverable, as well as the activities that the consultant team will be performing during this time – including geotechnical investigation and survey, WWTP unit process modeling (*with the support of Dr. Stensel and some potential additional data collection*), development of site plans, hydraulic profiles, P&IDs, BCF mixer procurement support, code reviews, etc.
- Dick questioned if there were potential noise issues associated with the project and how K/J would handle this. Chris said typically K/J uses subconsultants for this evaluation, although one was not on the project team at this time. It was generally agreed that noise was not a major concern, because most equipment would be housed in structures. K/J will further consider the issue during design development and discuss with City.
- City Codes for Code Review: Menglou will provide this information.
- Jim requested an updated staffing estimate at the 10% design stage for the improved WWTP, including both O&M and lab work. Also, the City wanted K/J to look at hydraulics through the existing pipeline that could be used to convey effluent to the land west of Highway 9.
- Opinions of Probable Construction Cost: Katy inquired as to the format of estimates. Tom noted that typically he prepares them by CSI division, but that sometimes they are done by area. The latter is more involved, because each area has to be broken down by CSI division. Katy said she needs to

perform a detailed cost analysis for rate structuring, and that it would be helpful to have the costs broken down by process – screening, treatment, etc.

Biosolids Market Assessment: Jim indicated that the City has made some progress in this area, and that they will have information to share with Mark when he is ready to start his work on the assessment. It was also noted that an update of the Biosolids Management Plan will need to be prepared, which is included in K/J's scope of work.

#### 8. Other Discussion Topics and Action Items

- Dates for Membrane Technology Workshop: tentatively set for one day from 7/23 through 7/26 depending on availability of Val Frankel (K/J membrane technology expert). Based on follow-up discussions, the workshop has been set for July 13<sup>th</sup>. Workshop will be held in Arlington
- Visits of other MBR facilities: tentatively week of 7/15, but earlier if possible to get in a visit or two before the Membrane Technology Workshop.
- Preliminary Date for Kennedy/Jenks C&CR meeting (as KJ approaches internal completion of 10% design, we have a company standard Concepts and Criteria Review meeting with a group of senior engineers to confirm the design approach. Completion of this internal meeting then allows us to finalize the 10% documents and deliver to the City for review.): 8/16/07 (per schedule)
- 10% Design Workshop: 8/22/07 (per schedule). Workshop will be held in Arlington.
- Direction on Existing WWTP Aeration Deficiencies: Aeration is a current issue at the WWTP. David Randolph and K/J believe it may result in NPDES discharge violations if left as is until construction of WWTP improvements are complete. The team discussed either expediting the permanent upgrade of the aeration system, or utilizing temporary equipment to address this deficiency and boost dissolved oxygen levels until WWTP improvements are complete. The latter option was agreed to be the preferred alternative. Two potential options were identified: Injection of hydrogen peroxide or use of floating mechanical aeration equipment. K/J may also investigate additional options that may be identified. Any temporary improvements will need to be coordinated with SBR cycles. K/J will perform the analysis of identified options and present them in the 10% design memorandum.
- UV Disinfection: Agreed to retain existing technology (medium pressure high-intensity, in conduit). Decision is needed on design standards – Class A reclaimed water or current criteria (river discharge) – to determine arrangement. Potential for short-term arrangement was discussed – procure new unit and install in space provided in previous construction, and then move later during full upgrade project. This was discussed because David indicated that recently both existing UV reactors have needed to operate at power level 3 (highest power level) to treat the effluent, which has at times had higher than normal TSS, thereby impacting UV disinfection efficiency. A third reactor may become necessary before completion of the other WWTP improvements.
- Confirmation of Construction Bidding Packages: It was confirmed that the BCF would be a separate package going out to bid in advance of the WWTP. See discussion above regarding potential to expedite schedule. There will be one “pre-purchase” for each site: mixer for BCF and equipment for temporary aeration improvements at the WWTP. A third UV reactor may also be pre-purchased for the WWTP.

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- Coordination of Geotechnical Evaluations: K/J will mark boring locations on map and send to David to get utility locates. Boring location at membrane tank area will need to be sited to avoid privy. Jim will coordinate with NW Archeological to expedite cultural assessment at BCF and work at privy site.
- Coordination of Surveying: Surveyors will research title reports. Surveyors will give City a map with survey perimeter and City will call for utility locates. Surveyors will then survey locations marked for the WWTP and BCF. Jim wants to add survey of 17-acre parcel west of SR 9. Site may be used for storm water or WWTP effluent indirect discharge. K/J to look at hydraulics of existing pipeline.
- Including space for a future reclaimed water pump station needs to be considered during design. Also consider space for chlorination facility for distribution system.
- City indicated they would provide bid tabs of recent projects to K/J for use in estimating local construction costs and would also provide K/J with copies of City ordinances for noise, life-safety, etc. for use with the code review.
- City input is needed for Building Space Program. Requirements for locker space, office area, lab area, etc are needed. K/J will provide Jim with a list of suggested rooms in the buildings, and Jim will provide space requirements.
- K/J intends to submit an information request to the City. Anticipated items include:
  - Extra WWTP process sampling (per D. Stensel)
  - Utility locates
  - Utility clearances for borings
  - City CAD standards for incorporation into design documents

By:



Tom Giese

Distribution: File 6.01 Correspondence  
File 7.01 Meetings  
Attendees