



## Bringing world-class expertise to local project

### Global Technical Expertise

As an international engineering company, AECOM has tremendous breadth and depth of technical knowledge throughout the world that it brings to the table for its clients. If a local office needs assistance with a certain aspect of a project, AECOM can bring in an expert from a different office that specializes in that area.

Engineers at AECOM beta-tested Collaborate i/o at a wastewater treatment plant project at The Children's Hospital Central California (CHCC) in Madera, CA.

### Technically Challenging

The Children's Hospital Central California wastewater treatment plant (WWTP) has been operating since 1998, and AECOM recently designed various improvements to bring the WWTP into compliance with the Central California Regional Water Quality Control Board. It is a technically challenging project requiring expertise because of the WWTP's history.

The technical requirements of the project were a good fit for the skill set of Dr. Gregory Bowden, Ph.D., an AECOM principal engineer and one of the top wastewater treatment experts in North America. However, because Dr. Bowden is based out of AECOM's Piscataway, New Jersey, office, traveling would involve an expensive six hour cross-country flight plus a three hour drive to the site. All told traveling to the site would incur costs of up to \$3,400.

With project budgets being squeezed, travel expenses are increasingly becoming more challenging. Trips cost upwards of \$3,000 for domestic travel and are typically two to three days in duration. Cross-country site visits also pull technical experts away from other projects that are their primary focus. Fortunately, for these projects with tight budgets and demanding technical requirements Collaborate i/o is an ideal solution.

Henry Liang, PE, AECOM's Operations Manager for the Fresno office, was on site at the WWTP to set up the Collaborate i/o equipment and initiate a collaboration session.



### Easy Setup

For Mr. Liang, the great thing about Collaborate i/o was how easy it was to set up. "Within 10 minutes of arriving on site," says Liang "we were ready to begin the collaboration session. It was easy enough where I wouldn't hesitate to ask someone else to set it up for me at another site." With a few clicks of the mouse, Liang was able to easily invite his colleagues to join the collaboration session.

### Deeper Technical Conversation

Dr. Bowden joined the collaboration session from AECOM's Piscataway office and shared his technical expertise. "We were able to easily see the treated effluent and the anoxic depth zone on screen," noted Dr. Bowden. Additionally, "we were able to assess the mixing energy in the EQ basin by visually inspecting the surface to see if it was well mixed."

Another collaborator was Brandon Stipe, a project engineer who logged in from AECOM's Fresno office. "Having Collaborate i/o on-site precipitated a much deeper technical conversation," said Mr. Stipe. "We pulled the plant supervisor into the conversation and asked him real-time questions about the plant's current operating state." Based upon the plant supervisor's responses, we were able to control the camera remotely to focus on certain areas for additional checks.

For Mr. Stipe, "the zoom feature was most impressive as was the picture clarity." It allowed him to see what he needed to see to draw technical conclusions and to ask deeper questions. Ultimately he found Collaborate i/o to be "a much better experience than sending and receiving large emails after getting back to the office."

### Tremendous Forward Progress

"Ultimately, we made tremendous forward progress on our project during the one to two hour session," says Mr. Liang. "Without Collaborate i/o, progress would have stalled for days of back-and-forth with emails, phone calls, and several visits to the site by the local team members. Instead we were able get everyone on the same page and knock it out in a single meeting."

### Significant Cost and Time Savings

For Dr. Bowden the greatest benefit was not having to travel and put his other projects on-hold for a two or three day trip. "It definitely saved me a trip!" Mr. Bowden noted. "Since people are usually very busy, it's important to make it easy for them to help." With Collaborate i/o you can easily bring in an outside expert for a 30 minute conversation where you get into specific, detailed technical information.

### Win-Win-Win Situation

"Collaborate i/o is really a win-win-win situation," according to Mr. Liang. "It make sense for our clients because we can provide them access to our company-wide expertise without having the added travel expenses. It makes sense for my coworkers because they can get the answers they need to keep working immediately without having to wait for me to schedule a visit. And it makes sense for me, because less time on the road means more time I get to spend on other projects."

### Credits

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### Cost Savings Estimate

Round-Trip Flight	\$550
Lost Productivity	\$2,400
(Travel Time: 10 hours each way 16 billable hours @ \$150/hr)	
Hotel (2 nights @ \$100 /night)	\$200
Per Diem (3 days @ \$40/day)	\$120
Rental Car (3 days @ \$50/day)	\$150
<b>Total Savings</b>	<b>\$3,420</b>