

Success Stories

PARTNERING

State Route 76 Project

PROJECT BEST PRACTICES

September 2009

California Department of Transportation

Granite Construction Company

Sukut Construction Inc.

URS Corp



State Route 76 Project

BEST PRACTICES

State Route 76 project was unique, in that it was a Public/Private Partnership. This project was highly successful, coming in ahead of schedule and under budget. The project team honed in on those Lessons Learned that could be **best practices** for other projects, especially because they were not doing things as “usual”. Below is an overview of the project followed by the *best practices* that the team identified.

PROJECT OVERVIEW

Project Name: SR 76 Improvements

Scope: Widen and realign roadway, including widening of existing bridge.

Duration: ~280 days

Cost: \$10.2 million (based on our last forecast).

Environmental Constraints: Work coordinated between contractor and biologist to protect endangered species (Least Bell’s Vireo, California Gnatcatcher, Southwestern Willow Flycatcher, and Arroyo Toad) and to comply with mandatory permit conditions.

Public, Private Partnership: Caltrans did QA and administered job according to Caltrans Construction Manual. Granite Construction and Pala funded project’s cost to design/construct; San Diego County reimbursed costs to design/construct/mitigate through County’s Transportation Impact Fee program.

Mentoring: Sukut Construction, Inc, the low bidder on the contract, had limited experience with Caltrans projects. Caltrans and Granite representatives worked with the contractor to ensure a positive project outcome and mitigate potential risks to the contractor.

Timely Design Changes: After establishing the designer into the project team, design changes were completed timely and accurately so construction could proceed without interruption.

Proactive Top Level Project Leadership: Without Caltrans District and Granite top level management buy-in to the partnering process, empowering the project team to solve disputes, the project would have had potential for delays, and additional costs.

BEST PRACTICES

#1. Leadership and the intention of creating a culture of partnership works.

Right from the start of construction, it was the stated intention of the Owner’s Project Manager that this would be a “partnered” project and that he wanted to be the “best” owner any of these folks had ever worked for. The RE picked this up and carried it out to the field. The atmosphere and culture that was developed was “intended”. It worked. It worked on a job that was highly unusual with people playing very different roles from what they were used to. The Owner committed to partnering and held quarterly facilitated partnering sessions. At each session the team made commitments to follow through on issues that were identified. They also had a monthly project scorecard that was used to make sure they were on track.

#2. Weekly meetings are critical - they hold everyone accountable.

Weekly meetings were seen as essential. No one missed a weekly meeting. They feared if they did they would fall behind and let the team down. Stakeholders were invited to attend the weekly meetings as necessary.

#3. The Design Engineer must attend the weekly meetings.

The team learned this lesson the hard way. The team struggled at first with design changes. It took a very long time to get the changes into the plans and move forward. This completely changed when the Design Engineer was invited to attend the weekly project meetings. There must be money included for design-support-during-construction.

#4. The environmental liaison saw her job as helping to keep in front of the work, so the work was not impeded. The team knew that the environmental experts were there to help.

Too many times the project biologist sees their role as “enforcing the permits”. That was not the case on this project. The Biologist saw her role as helping the team to follow through on the permits and to stay out in front of the construction so that her work did not impact construction. When there were changes needed to a permit, either because it was not practical or because new biological needs were assessed, the Biologist worked effectively with the permitting agencies to make the changes to assure the intention of the permits were met. The team felt that the Biologist was there to help, and would point out items of concern so that they could be addressed. Granite also had an in-house Environmental Manager who worked with the independent Biologist. They made a great team to assure the permits were understood, communicated, and implemented – ahead of the construction.

#5. Pay attention to the schedule. Maintaining the schedule allowed it to be used as a tool so we could see the critical path items, especially as they changed.

The schedule was used as a tool to really see where the team was. The schedule was updated monthly and/or when there was a critical path issue. The team got help from the Caltrans CPM expert. Everyone helped to make sure they understood where they were and what needed to be done. There were several other funding agency stakeholders and they had to be brought into the decisions at times. The updated schedules allowed them to also understand what was needed.

#6. Talk things through and then put them in writing to make sure they are really understood.

Team communication is critical. The team communicated very well. It was also important to put what was agreed to in writing, just to make sure it was understood and agreed upon. It is also critical to put RFIs in writing so they can be understood and passed on to other designers or units.

#7. Don't underestimate the scope of any item – “there is no small bridge”.

This project included the construction of a “small” bridge. The bridge ran into many challenges with soil conditions, design issues, and constructibility. The paradigm on the team at the start of the project was that it was “just a small bridge”. At the end of the project, they believed that there is no such thing as a “small bridge”. It is easy to underestimate the scope and requirements of

any item of work. That is why it is essential to keep watching for the risks inherent in your project – throughout its duration.

#8. Having the Owner involved during design allowed him to know what was agreed to and why, so it could be passed on to the RE.

Granite's PM was involved throughout the design phase of the project and helped to made decisions and to mold the project. With this knowledge, the PM could pass on the overall intention of the design and the design elements to the RE, who in turn could then communicate to the contractor what was needed and why. This allowed the team to have a very good idea of what was needed, what they could do differently, and what could not be changed.

CONCLUSION

The State Route 76 project team learned some important lessons and offers these Best Practices to other project teams in the hope that they may provide some guidance for a successful project.

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