



# Governor George Deukmejian Courthouse

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AN EVALUATION OF PROJECT  
AGREEMENT DEVELOPMENT,  
PROCUREMENT PROCESS &  
PERFORMANCE DURING DESIGN  
& CONSTRUCTION

A PERFORMANCE-BASED  
INFRASTRUCTURE PROJECT,  
LONG BEACH, CA

SEPTEMBER 1, 2012 - DECEMBER 31,  
2012



ADMINISTRATIVE OFFICE  
OF THE COURTS

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OFFICE OF COURT CONSTRUCTION  
AND MANAGEMENT



## 2.0 Part 2: IMPLEMENTATION OF PROJECT AGREEMENT

This section is an evaluation of implementation of the Project Agreement, during the ongoing construction phase of September 1, 2012 through December 31, 2012. While the evaluation topics presented herein were developed in collaboration with the AOC Office of Judicial Branch Capital Program, this report is provided as an independent, objective evaluation. The observations presented herein come from the overall monitoring of the project by the author<sup>1</sup> as the independent building expert (IBE), who has 37 years of experience in the design and construction industry having completed 15 PPP and 38 design-build projects. Interviews were conducted with six key stakeholders consisting of representatives from the AOC, Long Beach Judicial Partners (LBJP) who is the Project Company, Clark Construction (general contractor and design-builder), AECOM (architect and designer of record), and the IOR (inspector of record). Comments received by the author from additional participants, including the professionals who evaluated the design for compliance with codes and Performance and Trial Court Standards which have been active through the construction inspection, have been incorporated into the narrative as appropriate. A similar evaluation report will be provided quarterly through the end of the project to provide feedback on the implementation of the Project Agreement.

### 2.1 Construction Status Overview

The project continues to progress extremely well in comparison with other PPP and design-build projects of which the author has knowledge. On a scale of 1 to 10, with 10 being best, the five stakeholders<sup>2</sup> that were interviewed have rated the project with an average score of 8.8<sup>3</sup>. The project has made significant progress with the following milestone highlights: mechanical, electrical, and plumbing system installation was ongoing; drywall installation was continuing through the 5th floor and probation building; the roof was completed; elevators were being installed and inspected; escalators were installed; chillers and boilers were started; permanent power attained allowing the building to be energized, and grading took place in the courtyard. The number of on-site workers rose to 500 – the approximate maximum of the intended work force. Even with this large number of workers on-site, the project continues to be well managed, scheduled, and executed. All members of the project team continue to work well together and act with professionalism and cooperation. The following aerial photographs beginning September 2012 through the end of December 2012 show monthly progress during the construction period evaluated in this report.

<sup>1</sup> The lead author of this section is Ron Sheldon P.E., a principal with TTG Engineers, the independent building expert for the project.

<sup>2</sup> Stakeholders interviewed: Freddy Rayes: day-to-day Project manager – Project Company; Chip Hastie: Project manager – Design-builder; Henry Pittner: Project manager – Architect/Engineer of Record; Zach Abrego: Lead Construction Inspector (IOR) – IBE; Clifford Ham: Principal Architect – AOC; Roberta Lawrence: day-to-day Project manager – AOC;

<sup>3</sup> The question asked: “On a scale of 1-10 what is your overall rating of design and construction?” 8.8 is the mean of all the responses.



**Aerial Photographs**



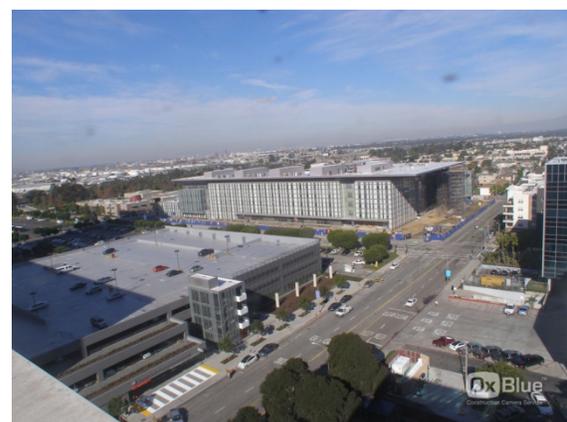
September 2012



October 2012



November 2012



December 2012



## 2.2 Evaluation Summary: Project Agreement Implementation during Construction

An evaluation summary of the Project Agreement implementation during the period from September 1, 2012 through December 31, 2012 is presented in the table below. The graphical ratings are derived from the interviews with the principal construction phase participants and the summary is keyed to the more detailed topic paragraphs on the following pages.

### Ratings:

- Objectives Satisfied
- Minor Issues Encountered
- ▲ Significant Concerns

Paragraph	Title	Rating
<b>2.3</b>	<b>Summary of Design and Construction Activity</b>	
a.	Summary of Construction Schedule	○
b.	Quality of Materials and Workmanship	○
c.	Project Change Orders	○
d.	Correction of Deficiencies and Unsatisfactory Work	○
f.	Testing Results	○
<b>2.4</b>	<b>Design and Construction (Project Agreement, Article 7)</b>	
a.	Design-Build Governmental Approvals and Governmental Agencies	○
b.	Construction Inspections, Testing and Observations	○
c.	Correction of Design-Build Work	○
d.	Furniture, Fixtures and Equipment	○
e.	Warranties on Design-Build Work	○
f.	Commissioning and LEED NC Silver Certification	○
<b>2.5</b>	<b>Performance Standards</b>	
a.	Technology Systems	○
b.	Existing Parking Structure	○
<b>2.6</b>	<b>Risk Allocations</b>	
a.	County and Third party Lease Revenue	○
<b>2.7</b>	<b>Construction Phase Report</b>	
a.	Construction Meetings and Reports	○
b.	Coordination between Parties	○
c.	Quality Management	○
d.	Project Schedule	○
e.	Site Safety	○

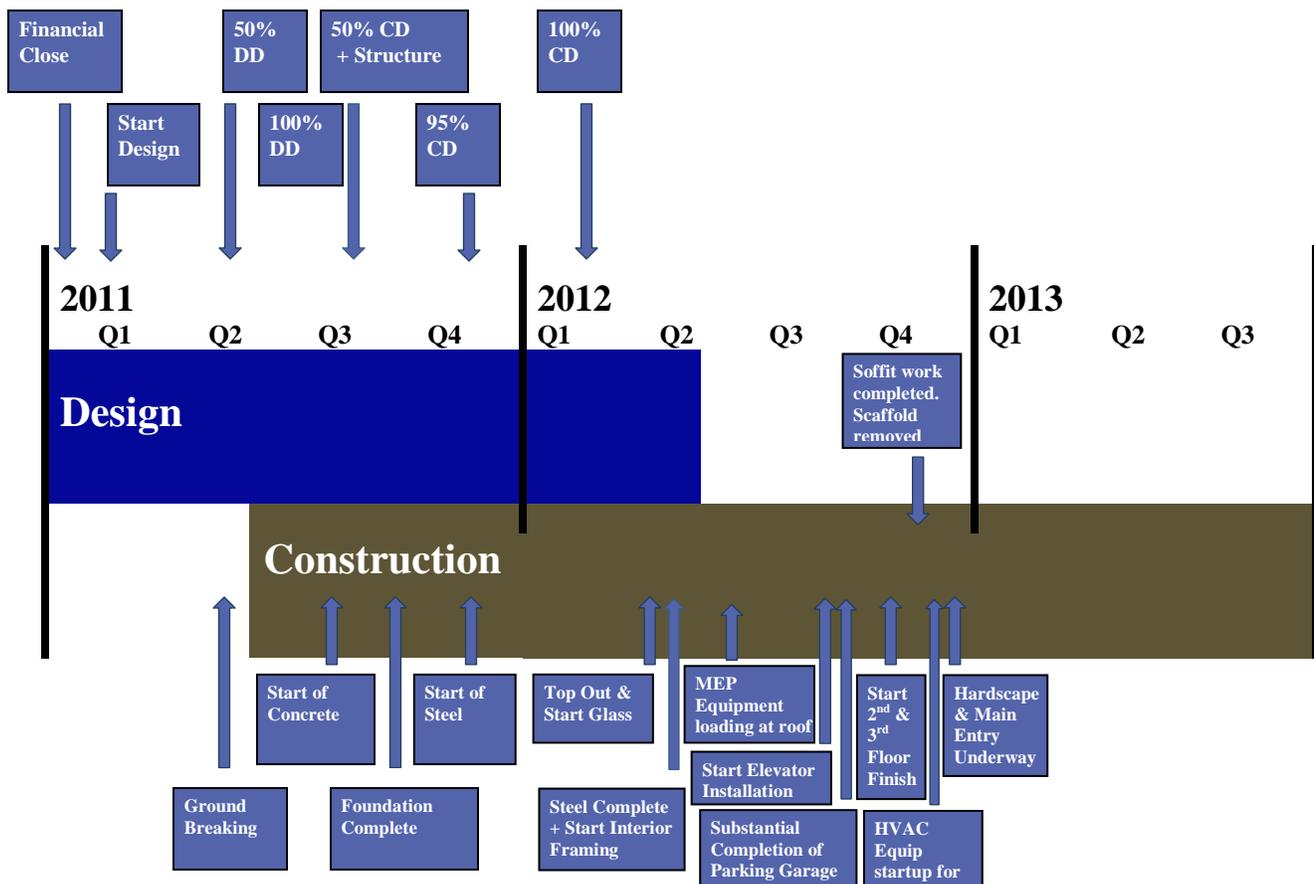


Paragraph	Title	Rating
f.	Project Company Commissioning Management	○
g.	Inspector of Record (IOR)	○
h.	Project Company Tests and Inspections	○

### 2.3 Summary of Design and Construction Activity

As of December 31, 2012 the overall construction is estimated to be 75 percent on the Main Court Building and the Parking Garage is complete. With interior building finishes about to begin, the closing out of overhead systems was a focus so that the ceilings could be installed.

Commissioning is starting with a complete review by the team of the various phases of the process. A comprehensive matrix for commissioning tests and training for owner and service provider is provided as a scheduling and coordinating tool. There is an ongoing process developing the transition program and involves all of the phases including owner move-in and follow-up. The fast-track schedule continues to be monitored carefully and is yielding outstanding results in terms of delivery as programmed. The fast-track design and construction schedule for the project is diagrammed below:





***a. Summary of Construction Schedule***

While this was an extremely busy period the schedule continues to be on target. A primary example of the well monitored and executed schedule is in one of the major milestones achieved during this period. The completion of drywall was essential to facilitating the installation of courtroom finishes and thus completing the courtrooms on schedule. The early target for substantial completion is mid-June and that for Occupancy Readiness is mid-July. The Scheduled Occupancy Date, stated in the Project Agreement is August 31, 2013. To insure these accomplishments, Clark is preparing a process for turnover of the building using punch lists followed by a transition plan to deliver and occupy the building.

***b. Quality of Materials and Workmanship***

Quality of materials and workmanship continues to be monitored carefully. A prime example of methods used to insure delivery of good quality was the review of the millwork in Quebec, Canada by Clark's quality control team before manufacturing and shipping to the site. This took out potential bugs which included the matching of woods and veneers. Detention cell metal panels came out as expected and were well-crafted. Curtain wall and wood soffits outside the building and in the atrium are of durable quality. Integration of systems above the ceiling has been diligently performed with multiple team members collaborating on various solutions required.

***c. Project Change Orders***

The change order process continues to be watched carefully to insure proper expenditures of funds within the project contingency budget and to verify that the changes are legitimate and necessary. The Project Change Order table below shows the addition of seven change orders during the period of September 1, 2012 through December 12, 2012 valued at \$416,833. Total value of change orders as of December 31, 2013 is \$3,668,007 which represents 36.7% of the allotted owner design requirements change allowance.



**Project Change Orders Table:**

CHANGE ORDER NO.	DATE Approved	DESCRIPTION	AMOUNT	REASONS	STATUS	COMMENTS
		<b>12 08 31 Report #2 Subtotal</b>	<b>\$3,251,174</b>			
810089	9/25/12	Added Card Reader at Parking Structure	\$22,263	2	Approved	LASC
810091	9/25/12	Added Terrazzo Benches at Atrium Level 2 Bridge	\$25,420	1	Approved	AOC
810044R1	11/12/12	Add Chairs; Delete Visiting Booths at Arraignment Docks	-\$1,250	3	Approved	Designers' recommendation
810062R2	11/12/12	Add Atrium Docket Display	\$146,543	2,3	Approved	Designers' recommendation & LASC
810067	11/12/12	Wall Coverings: Initial Graphic Design	\$26,600	3	Approved	Designers' recommendation
810095R1	11/12/12	Add Infrastructure to support Traffic Kiosks at Traffic Clerks	\$37,354	2	Approved	LASC
810107	12/17/2012	Wall Coverings: Jury Assembly, Public Counters, and Restricted Corridor	\$130,303	3	Approved	Designers' recommendation
		<b>12 12 31 Report #3 Subtotal</b>	<b>\$416,833</b>			
		<b>12 12 31 TOTAL</b>	<b>\$3,668,007</b>			

Reasons:

1. Owner Request
2. Superior Court Request (Court/Sheriff)
3. Designer Recommendation
4. Project Company Request for Change to Design Requirements
5. Due to Code Update/Request from Code Authorities
6. Constructability Issues
7. Field Changes Reviewed by IBE/IOR
8. Changes Due to Relief Events
9. Update/Change to Performance Standards



***d. Correction of Deficiencies and Unsatisfactory Work***

The Quality Control (QC) team has been performing pre-inspection field observation walks. For a project of this size and complexity there are very few pre-inspection QC field issues and comments. During this period there were 486 inspection requests. There have been a total of 2026 inspection requests from the start of the project. During this quarter there were 31 (6%) comments with 20 open at the end of December 2012. Most observation comments addressed work that was not yet completed but was in place. Some earmarked work which was not acceptable and was minor in nature. The latter were typically corrected right away. Observation reports by the IBE and A/E team are tracked weekly.

***e. Testing Results***

Testing is ongoing. Torque testing for equipment has been going well. About 30% of the Elevator support brackets have been completed and subsequent testing produced acceptable results.

**2.4 Design and Construction (Project Agreement, Article 7)**

***a. Design-Build Governmental Approvals and Governmental Agencies***

Clark and AECOM continue to take responsibility for working with governmental agencies and obtaining approvals. The most significant item involving governmental involvement during this period was related to the State Fire Marshal for fire life safety for smoke evacuation. Clark submitted a package to the State Fire Marshal in December as a proactive measure to insure all parties are on the same path. Additionally, there have been on-going meetings to review integrated and well documented solutions for smoke evacuation. There continues to be a good dialog with the State Fire Marshal who was doing field reviews for fire sprinklers during this period.

***b. Construction Inspections, Testing and Observations***

Overall the process of inspections, testing and observations is going well and will require oversight and support right up to the end of the project. There is a well laid-out plan toward that end which will continue to provide focused team participation. A perfect example is the team participation in developing the procedures for smoke control testing. The final punch list process and how it will be administered is being developed taking into account the lessons learned from the parking garage. The building and site construction has been divided into 20 areas for sequential the punch listing and the Design Builder is presently scheduling these phases.

***c. Correction of Design-Build Work***

Request for information (RFI) process is going well. AECOM is responsive to requests from the construction team in a timely manner. Overall, the correction of Design-Build work is in



compliance with all the terms and conditions of the agreement as it related to design and construction. No notices to the contrary have been issued.

***d. Furniture, Fixtures and Equipment***

Procurement of furniture, fixture, and equipment is going extremely well. The Superior Court spent a lot of time on details. Some changes were made to colors and accessories from observing the mock-ups with no schedule impact and minor cost impact. All FF&E purchases from two different vendors are completed and deliveries are expected to start in the first quarter of 2013.

***e. Warranties on Design-Build Work***

There have been no warranty items to date. Johnson Control will take the lead on warranty issues. A maintenance criterion for equipment is being looked at.

***f. Commissioning and LEED NC Silver Certification***

The process of pre-commissioning reviews for equipment, seismic anchorage, and pressure testing of ducting is 75% complete. The Commissioning team is starting to ramp up for physical commissioning and is continuing to track credits. Additionally, the Design Build Team has submitted at the required milestones, the documents to the USGBC for evaluation. This is the entity that will officially certify that the project meets the LEED Silver requirements. The last published report identified that the project is one point away from LEED Gold, while LEED Silver is the actual project requirement.

**2.5 Performance Standards**

(Project Agreement-Appendix 3 and California Trial Court Facilities Standards)

***a. Technology Systems***

There was an issue about fire proofing of systems within IDF rooms. In late December all parties, in a cooperative process, arrived at consensus, on how to satisfy the building code requirement. All work for technology systems is integrated and the AOC and the Superior Court have approved the local area network design. Security system training which is detailed and customized to this building has already started. The active electronic equipment is expected to arrive in the first quarter of 2013.

***b. Existing Parking Structure***

Parking Structure is closed out with the exception of Record Documents which were distributed in February, 2013.



## 2.6 Risk Allocations

### *a. County and Third Party Lease Revenue*

A representative group from the County has regularly attended meetings and is pleased with how the team has worked together. County representatives have been engaged in all aspects of construction. LBJP is still working on finalizing the Third Party Leases; one has been completed as of December 2013.

## 2.7 Construction Phase Report

### *a. Construction Meetings and Reports*

Construction meetings and reports continue to be very effective in enhancing the communication among all parties to track and resolve items. In-person attendance has been required and has facilitated prompt resolution of issues.

### *b. Coordination between Parties*

The Project Company has continued its effort in coordinating design and construction with the project requirements. The collaborative approach held by all team members is one key item that has helped to achieve the success of the project in terms of schedule and deliverables to date. Coordination between AECOM and Clark and between Clark and its subs is going very well.

### *c. Quality Management*

Quality Management is very effective. In response to the increased volume of ongoing construction, the on-site DI team added one person, during this period. Also, having one member of the DI team in the field on a full time basis has been an asset in finding and correcting issues. This is especially important in their comprehensive survey of the construction for compliance with ADA requirements..

### *d. Project Schedule*

The Project is on schedule. Substantial completion is *targeted* for mid-June and Occupancy Readiness for mid-July. This is ahead of the August 31, 2013 contractual Scheduled Occupancy Date. The time between mid-July and August 31 is expected to be used for: completion of certain punch-list work (which must be finished before court operations begin, orientation Superior Court and Sheriff staffs, and for installation of Superior Court equipment (which is not part of the Design Build contract).



***e. Site Safety***

There continues to be no lost time injuries with over one million person-hours logged to the project. Recordable Incident rate of 1.37 is well below the national average. Proactive measures to have an onsite medic and allowing injured workers to work on light duty if possible are helping the project.

***f. Project Company Commissioning Management***

The project commissioning agent has adequately prepared the commissioning team with procedures and schedules. The IBE has provided oversight of the commissioning process.

***g. Inspector of Record (IOR)***

The Inspector of Record (IOR) and his team have been keeping up with the increase in volume of construction, during this period. The field observation support from the licensed engineers and architects that participated in the plan check has been effective and has reinforced a level of code understanding to the project.

***h. Project Company Tests and Inspections***

Previous efforts to instill a program of Quality Control team review of work prior to the IOR inspection have enhanced the overall testing and inspection program. Lessons learned have also been instrumental in improving the inspection process.