



Alameda County Juvenile Justice Center

DESIGN/BUILD PROJECT DELIVERY

PROJECT PROFILE

Challenges

- Need for cost and schedule certainty to obtain \$33 million state construction grant
- Late changes in project scope and location in response to public input
- New green building and contractor diversity goals to be met within existing schedule and budget

Solutions

- Single design/build contract allowed greater cost control and quicker project delivery
- Integrated team approach supported innovations and accommodated change
- Integrated, efficient project design and delivery focused on owner's needs

Benefits

- Project delivered on time, on budget despite weather delays
- Facility meets multiple customers' needs in new location
- 46% more efficient than strict California energy code and exceeded goals for construction participation by underrepresented businesses

Background

Alameda County's General Services Agency (GSA) was tasked with delivering a new Juvenile Justice Center. County agencies needed to consolidate services to provide an integrated therapeutic environment for the community's at-risk youth. To facilitate this, the Center was designed to provide a healthy indoor environment while also reducing global warming impacts and saving taxpayer dollars through conservation and waste reduction.

In 2000, the State of California amended the Public Contract Code to allow seven counties to pilot the design/build method of contracting: the County could make a single contract with a design and construction team rather than two sequential contracts. The County seized the opportunity to use this team approach to facilitate on-time completion.

Challenges

While the design/build team was being selected, the project was downsized and situated on a site with geotechnical challenges. The County also targeted greater participation by women- and minority-owned businesses and green design and waste diversion standards set by the Board's new Green Building Ordinance. The new goals had to be met without changing the budget or completion schedule in order to maintain state grant eligibility.

Facts at a Glance

- New 379,000 sq. ft. facility located in San Leandro, California
- Nine agencies provide integrated services
- 360-bed juvenile detention facility
- LEED® Gold green building rating anticipated
- Completed on time and on budget: \$176 million and 31 months





SOLUTIONS

Alameda County's General Services Agency seized a unique opportunity to use a design/build contracting approach to facilitate on-time completion of a project with significant early changes to project scope. The team included architect HOK, Hensel Phelps Construction Co., Vanir Construction Management, and their teams.

IN THEIR WORDS

The design/build delivery method resulted in lower costs, a faster schedule, enhanced green features, and required fewer change orders.

Aki K. Nakao
Director, GSA

On this complex and innovative project, success could only have been achieved by using the design/build process.

James Kachik
Deputy Director, GSA

PROJECT CONTACT

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DESIGN/BUILD DEFINED

In a design/build process, as opposed to a sequential design-bid-build process, the owner selects one company to manage the complete project. Detailed "bridging" documents communicate the owner's requirements to bidders. The design/build bidding teams each develop a scheme that meets the intent within a fixed budget and schedule. The owner then selects the best value proposal. In 2006, Public Contract Code §20133 was amended to allow additional California counties to use the design/build method for projects above \$2.5 million. This method proved to be very compatible with greening the design.

ON TIME AND ON BUDGET

A single point of responsibility for design and construction provided greater efficiency for the Juvenile Justice Center. Overall communication about project changes was better coordinated among all parties and with only one contract, negotiations took significantly less time to complete. With design/build, construction could begin before the design was fully complete.

The design/build approach gives designers incentive to optimize projects and reduce costs. As members of the same team, the contractor also worked with the architect to develop less expensive alternatives.

Finally, time delays due to scheduling issues or changes in construction were substantially reduced.

CUSTOMERS' NEEDS MET

The core goals of the project were determined in 1997, 10 years before project completion. The design/build team took shared responsibility with the County to adjust to changing requirements as response to public concern caused changes to the project scope and location. New business outreach and green building goals were also accommodated. Some changes are inevitable over the long period of a public project: design/build's performance-based requirements allowed for more flexibility than prescriptive requirements.

The process provided earlier cost visibility so that money was not spent on a design the County could not afford to build; however, because the cost commitment is not based on full design and documentation, it was important for the County to partner on decisions about cost-management strategies.

TEAM APPROACH

Design/build and LEED processes both generated an integrated team approach on this project. For example, when maintenance staff worked collaboratively with designers and the construction team, access to second-story windows for cleaning was integrated into exterior design and landscaping. Design/build resulted in a congenial, collaborative atmosphere where every team member had a stake in a successful project outcome.