



DEPARTMENT OF GENERAL SERVICES
Executive Office

July 13, 2004

The Honorable Cindy Montanez, Chair
Joint Rules Committee
State Capitol, Room 3013
Sacramento, CA 95814

Dear Assembly Member Montanez:

Pursuant to the requirements of Government Code Section 8169.5, the Department of General Services is submitting the final report on the Capitol Area East End Complex.

In keeping with our commitment to encourage conservation, we have posted this report to our website. The report can be viewed at <http://www.legi.dgs.ca.gov/Publications/2004LegislativeReports.htm>. The report is entitled *Capitol Area East End Complex Final Report June 2004*.

If you wish to receive a printed copy of this report, please contact Kathryn Welch at (916) 376-1626 (kathryn.welch@dgs.ca.gov).

If you have any questions or require additional information regarding the Capitol Area East End Complex, please call John H. Brooks, Acting Deputy Director, Real Estate Services Division, at (916) 376-1818.

Sincerely,

Ron Joseph
Director

RJ:RDR:kw

cc: See attached distribution list
John H. Brooks, Acting Deputy Director, Real Estate Services Division, Department of General Services
Richard D. Rusk, Acting Chief, Project Management Branch, Real Estate Services Division, Department of General Services

Capitol Area East End Complex
Quarterly Joint Rules Committee Report – pursuant to 3-25-99 JRC recommendations
LEGISLATIVE REPORT LISTING

ORIGINAL LETTER TO EACH OF THE FOLLOWING:

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Joint Rules Committee
State Capitol, Room 3013
Sacramento, CA 95814
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The Honorable Mike Machado
Member of the Senate
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The Honorable Deborah Ortiz
Member of the Senate
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The Honorable Darrell Steinberg
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COPY OF JOINT RULES COMMITTEE LETTER TO EACH OF THE FOLLOWING:

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Originating Office

REVISED 05/19/04 East End Quarterly JRC Report

Capitol Area East End Complex Final Report to the Joint Rules Committee

**Pursuant to Government Code Section 8169.5
(Chapter 625, Statutes of 1999)**

June 2004

Department of General Services

Ron Joseph, Interim Director
John H. Brooks, Acting Deputy Director
Real Estate Services Division

Project Management Branch

Richard D. Rusk, Acting Chief
Richard Teramoto, Project Executive

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Exhibit A – Government Code Section 8169.5

Exhibit B – March 4, 1999 Response to Chair of the Assembly Committee on Rules

LEGEND OF ABBREVIATIONS

Air Resources Board	ARB
Business Enterprise Program	BEP
Capitol Area Committee	CAC
Capitol Area Development Authority	CADA
California Department of Education	CDE
California Energy Commission	CEC
California Integrated Waste Management Board	CIWMB
California State Contracts Register	CSCR
Center for the Built Environment, U.C. Berkeley	CBE
Department of Energy	DOE
Department of Finance	DOF
Department of General Services	DGS
Department of Health Services	DHS
Department of Rehabilitation	DOR
Department of Water Resources	DWR
Disabled Veterans Business Enterprise	DVBE
Division of the State Architect	DSA
Environmental Impact Report	EIR
General Service Time-Of-Use	GSTOU
Government Code	GC
Heating, ventilation, and air conditioning	HVAC
Indoor Air Quality	IAQ
Joint Rules Committee	JRC
Kilowatt	KW
Lawrence Berkeley National Laboratory	LBNL
Legislative Analyst's Office	LAO
Leader in Energy Efficient Design™	LEED™
Letter of Understanding	LOU
Mechanical/Electrical/Plumbing.....	MEP
Modular Systems Furniture	MSF
National Air Balance Company	NABCO
Office of Legal Services	OLS
Owner Controlled Insurance Program	OCIP
Pacific Gas & Electric	PG&E
Photovoltaic	PV
Preliminary Plans	PP
Project Management Branch	PMB
Public Works Board	PWB
Quality Control/Quality Assurance	QA/QC
Real Estate Services Division	RESD
Request for Proposal	RFP
Request for Qualifications	RFQ
Rubberized Asphalt Concrete	RAC
Small Business Enterprise	SBE
State Fire Marshal	SFM
Sacramento Municipal Utility District	SMUD
Simon Martin-Vegue Winkelstein Moris	SMWM
Technical Evaluation Committee	TEC
Transportation Systems Management Plan	TSMP
Volatile Organic Compounds	VOC



Capitol Area East End Complex

I. EXECUTIVE SUMMARY

Pursuant to the requirements of GC Section 8169.5, this final report to the JRC examines the benefits of the design-build process, any problems that were encountered, and lessons learned during the design and construction of the Capitol Area East End Complex (East End Complex) that may be applied to future projects. (See Exhibit A, GC Section 8169.5.)

All components of the East End Complex are complete. The buildings are occupied and final punch list items are nearing completion. The project was completed as scheduled within the authorized budget. Highlighting the benefits of the design-build project delivery method, the project was delivered on a shorter schedule owing to the combining of the design and construction phases. Some of the benefits of a shortened schedule are savings on lease cost due to quicker occupancy, early shifting of risk to the design-build team, and limiting of cost growth through early cooperative resolution of potentially difficult issues. Among the latter was encountering contaminated soils and archeological finds, changes to utility company requirements, the addition of a connecting tunnel, the addition of a raised floor system at Block 225, higher sustainable goals, and major revisions to tenant program and requirements.

The project was completed without claims due in great part to the cooperative approach fostered by the design-build method. The design and construction tasks are combined contractually in one entity resulting in an improved communication between the designer and builder. This shifting of management risks to the design-build team minimizes change orders through early collaboration between design and construction disciplines taking advantage of the constructors' experience and expertise much earlier in the process. Critical processes such as scheduling, commissioning, and coordination also occurred much earlier, maximizing their influences in delivering a better project. Improvements to the quality of the project were also facilitated by this delivery method.

The RFP required each design-build team to propose quality enhancements beyond the requirements and criteria without an increase in the price. This resulted in several quality enhancements primarily in the area of sustainable design. The emergence of the move toward sustainable or "green" building practices coincided with the early phases of the development of this project. Proactive responses in this regard and the ability to quickly act on program and other scope changes were facilitated by the design-build delivery method.

The East End Complex is the first state facility to be certified by the U.S. Green Building Council with the Block 225 building being awarded a gold rating. At the time of its award, it was the largest building in the world to be gold certified. This building also received the 2003 Governor's Environmental and Economic Leadership Award for outstanding contributions in the area of sustainable facilities. The flexibility of the design-build process allowed the project team to respond to changes in the sustainable building practices. This quick reaction, without heavy cost penalties, was instrumental in achieving these "green" goals, including energy efficiency that exceeds California Code of Regulations, Title 24 by more than 30 percent, over 90 percent waste diversion for construction debris from landfills, and other sustainable building measures including enhanced indoor air quality criteria and significant cost savings from energy efficiency and waste diversion.

The project has been cited by several organizations and publications for design excellence and leadership in public sector design-build delivery. A recently completed financial analysis by Dr. Robert Fountain indicated that the East End Complex is responsible for stimulating \$1.5 billion in jobs and business opportunities for the Sacramento region. As quoted from the Sacramento Bee in July 2003;

"From late 2002 to the end of this year [2003], 16 new restaurants and high-end bars will have opened in the downtown area alone, according to figures collected by the downtown Sacramento Partnership. There's a host of loft housing, hotel and theatre projects either completed, under construction or on the drawing board."

"Joey B's", the grill and sports bar located in the Block 173 building at 17th Street and Capitol Avenue, recently opened. This facility is part of the Department of Rehabilitation, Business Enterprise Program, to aid the sight impaired.

The project also provided over \$4.3 million in mitigation funds to local agencies, which made possible new historic pedestrian lighting, upgrading the City of Sacramento's sewer/storm drain system around the project area, relocating the Francis House charity organization, and providing housing in the surrounding area. The CADA received \$2,435,000 to mitigate 51 apartment units that were on the original, blighted state property used for the East End Complex buildings. The CADA utilized the funds to move and restore the historic eight-unit art deco apartment building

originally located at 1311 15th Street, and construct a new 10-unit building on the remaining portion of the site, rehabilitate two units at 1500 Q Street and build four new loft units, and partially fund the 119-unit Fremont Mews project located at 13th, 14th, P, and Q Streets. The mitigation funds contributed to a total of 143 new or rehabilitated residential units in the Capitol Area. The mitigation funds were utilized to replace the original 51 units and provide an additional 92 residential units.

These benefits certainly outweigh the problems encountered. The problems and lessons learned are delineated in this report. The management team is unanimous and enthusiastic in their endorsement of the design-build delivery method. When all the elements are evaluated, the design-build delivery method did save time and money, reduced the risk to the public entity, and delivered the highest quality project within the authorized budget.



Block 225 – 1430 N Street

1. Background

Legislation: GC Section 8169.5 (Chapter 761, Statutes of 1997 (SB 1270, Johnston)), hereinafter GC Section 8169.5/1997, approved by the Governor on October 7, 1997, authorized the design and construction of approximately 1,470,200 gross square feet of office space and 742,625 gross square feet of parking structures for the consolidation of the executive and administrative offices (headquarters functions) of the DHS and the CDE. The legislation originally included the DGS as the third tenant for the East End Complex. On January 24, 2001, a 20-day letter was issued notifying the Legislature of the scope change wherein the DGS was taken out of the tenant base to allow for a greater consolidation of DHS and CDE in the complex.

GC Section 8169.5/1997 required that, prior to the start of any construction on the five-block office complex, a parking garage be constructed on Block 224, located at 1301 P Street, Sacramento, to provide parking spaces to replace those displaced by the office complex on Block 225. GC Section 8169.5/1997 also authorized design-build as a project delivery method.

Senate Bill 776 (Chapter 252, Statutes of 1998), approved by the Governor on August 3, 1998, authorized the use of design-build as an alternate project delivery method, to be in effect for at

least five design-build projects, each with a value of \$10,000,000 or more, or January 1, 2006, whichever occurs later. This bill also set forth the design-build selection process based on “best value” in meeting the interest of the department and meeting the objectives of the project.

On December 1, 1998, the DGS presented to the JRC the documentation of the development and process for the construction of the facilities known as the East End Complex, as authorized by GC Section 8169.5/1997.

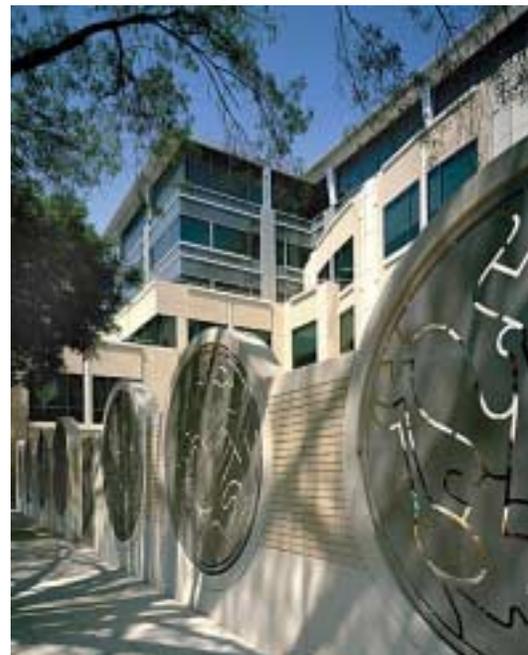
The enabling legislation for the East End Complex authorized the JRC to review the information the DGS submitted to the Legislature and required the LAO to prepare a report to the JRC that evaluated the DGS’ plan for the East End Complex. The LAO’s report, due on or before April 1, 1999, considered whether to recommend to the DGS any changes in the site design criteria, performance criteria, specifications, or other criteria for determining the winning bidders. The JRC submitted its recommendations on March 25, 1999.

Pursuant to the requirements of GC Section 8169.5/1999, beginning July 1999, a quarterly progress report was submitted to the JRC. The March 25, 1999 JRC Report outlined specific areas that were to be addressed in the East End Complex quarterly progress reports. Beginning January 2001, the quarterly report was submitted electronically via the DGS website. Individuals were provided a hard copy version of the report upon request.

To ensure the intent of the March 25, 1999, JRC recommendations were satisfied, the DGS signed a LOU with the other agencies the JRC requested the DGS to consult. A copy of the LOU was provided in both the July and October 1999 East End Complex quarterly reports. Pursuant to the LOU, a draft of each quarterly report was provided to the CEC, CIWMB, DHS, and ARB. Comments were received and incorporated to the extent practicable.



Capitol Avenue Plaza Artwork



Artwork at Child Care Center, Block 225



Interior of Block 225, Modular Systems Furniture

2. Project Information

Owner: State of California, DGS

Project Management: RESD, PMB

Project Consultant: 3D/I, Program and Construction Management

Master Architects:

- Johnson Fain Partners, for the office complex located on Blocks 171, 172, 173, 174, and Block 225.
- Gordon Chong Partners for the parking garage located on Block 224.

Design-Builders: To encourage diverse participation and competition among the design-build teams, the state chose to package the East End Complex as three separate projects: the Block 224 Parking Garage; the Block 225 Office Building; and the Blocks 171-174 Office Buildings.

- McCarthy Construction with International Parking Design for the parking garage on Block 224. (Bid Amount: \$9,343,083)

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- Hensel Phelps Construction Company with Fentress Bradburn Architects for the office building on Block 225. (Stipulated Sum: \$68,680,000)
- Clark/Gruen Design/Build, a joint venture between Clark Construction and Gruen Architects, for the four office buildings on Blocks 171-174. (Stipulated Sum: \$225,650,000)

Location: Sacramento, California

Building	Address	Tenant
Block 224 Parking Garage	1301 P Street	
Block 225 Office Building	1430 N Street	CDE
Block 171 Office Building	1501 Capitol Avenue	DHS
Block 172 Office Building	1500 Capitol Avenue	DHS
Block 173 Office Building	1615 Capitol Avenue	DHS
Block 174 Office Building	1616 Capitol Avenue	DHS

Square Footage – Office ¹:

Building	Gross Office	Office Area	Floor Usable
225	396,072	284,325	336,008
171	446,857	354,535	365,060
172	188,153	122,614	136,190
173	220,026	160,556	172,413
174	247,571	186,273	203,563
Totals	1,498,679	1,108,303	1,213,234

Project Cost: \$400 million

Financing: Lease Revenue Bonds

Schedule:

Dates	Project	Duration
January 1998-December 1999	Block 225 and Blocks 171-174 Office Buildings legislative review of preliminary design, RFQ, RFP, Design-Builder Selection	23 Months
December 1998-February 2000	Block 224 Parking Garage, design and construction	14 Months
February 2000-June 2002	Block 225 Office Building, design and construction	16 Months
February 2000-June 2003	Blocks 171-174 Office Buildings, design and construction	28 Months
January 1998-June 2003	Start to finish	65 Months

¹ There is an additional 19,226 square feet of retail space throughout the Complex.



Pocket Park Artwork – Block 225, 1430 N Street

II. DESIGN-BUILD PROCESS; REPORTING REQUIREMENTS PURSUANT TO GC SECTION 8169.5.

1. Design-Build vs. “Bridged” Design-Build - Defined

In the traditional design-bid-build procurement process, the owner contracts for the design of the project. The construction documents, thus produced, are then circulated for competitive bidding. The owner then contracts for the construction of the project. Design-build is a project delivery process in which these two responsibilities are combined and are contracted under a single entity. This entity, usually referred to as the design-builder, is responsible for the design and the subsequent construction of the project.

The design-build method used to deliver the East End Complex is more correctly defined as “bridged” or modified design-build. This method provides that the owner contract for the design of the project. The design is usually developed to the preliminary plan level. The design then forms the basis for a Request for Proposal to design-build entities. The contracted design-builder is then responsible to complete the design, produce construction documents, and construct the project. This “bridged” or modified design-build process was used to deliver the East End Complex.

The state contracted for design services with what is referred to as the Master Architect. The Master Architect assisted the DGS in defining the scope and criteria for the functional and

aesthetic requirements. The responsibilities also included design development sufficient to establish the scope, size, character, and quality of the project. Included were essentials as to the kinds and location of materials and preliminary design development and criteria for all major systems. The selected design-builder then completed the construction documents as Architect of Record and constructed the project as General Contractor.

The Master Architect had a continued responsibility to assist the state in the review of documents and to generally assure conformance to the criteria and design intent. Inspection for quality assurance and code compliance was the responsibility of the Construction Services Branch of the DGS.

2. Benefits Realized with Design-Build

Less Time Saves Money

In March 1999, the DGS responded to the Chair of the Assembly Committee on Rules to the question posed by the Legislative Analyst on the decision to utilize design-build rather than the traditional design-bid-build procurement method. In part, the decision to use a design-build process rather than the traditional design-bid-build for the East End Complex was based on the desire to produce the highest quality project in the shortest possible time frame for the least amount of money. The design-build delivery process allowed combining the design and construction of the project, expediting the completion of the project. The DGS' experience with the completed San Francisco Civic Center project demonstrated that design-build can produce high-quality projects, while also providing best value to the state, and be completed more rapidly than the standard design-bid-build procurement method. Reducing the time it takes to design and construct a building saves money. (See Exhibit B for entire response.) At completion of the East End Complex, the DGS stands by its assessment of the benefits of the design-build procurement process.

Overcoming Challenges

The design-build procurement process enabled the State Management Team to face and overcome the numerous challenges that were presented during design and construction of the East End Complex without the higher cost associated with traditional design-bid-build change orders and schedule delays. Some of those challenges are listed below.

- **Accept and embrace Green Team participation to assist in increasing the level of sustainability of the design.** The specification entitled Section 01350: Special Environmental Requirements was developed and implemented for the East End Complex and utilized by both design-build teams. This specification has been subsequently implemented on numerous projects nationwide and establishes a new standard of care on how sustainable building materials are specified.
- **Add a raised floor system into the Block 225 building utilizing underfloor distribution of HVAC, electrical, and tele/data cabling.** During the design phase, the decision and approval to add a raised floor system in the Block 225 building was made requiring major redesigning by the design-builder.

- **Two tenant changes.** The DGS was removed from Blocks 172 and 174 in January 2001 and replaced by CDE and DHS. In January 2003, CDE requested out of Block 172, consolidating almost completely into Block 225, and was replaced by DHS two months prior to scheduled completion.
- **Enhanced access accommodation to the public spaces of the buildings.** During the construction phase, a new standard was established where enhanced access accommodation to the public spaces of the building was provided.
- **Incorporation of the art program during the construction phase.** Due to delays in appointing the art selection committee, final determination of the art work was not made until after the design-build teams were well into finalizing their designs. Modifications, sometimes major modifications, were required to incorporate the art work at this stage of the project. Compounding the difficulties of late changes was the limitations placed upon the management team in providing input to the development of the art program.
- **Build out of the retail space after occupancy.** The approval to begin tenant improvements to the retail space did not come until well into construction of the core and shell. BEP's first full-service restaurant, Joey B's, was complete February 2004 – well after office tenant occupancy due to delay in obtaining legal agreement between DOR and DGS.
- **Implementation by the DGS of the Excellence in Public Buildings Initiative.** One goal of the Excellence in Public Buildings Initiative was to achieve the highest possible LEED™ rating, which was achieved by the Block 225 office building receiving the LEED™ 2.0 Gold Rating recognition from the U.S. Green Building Council. LEED™ is the accepted energy and environmental principles that strikes a balance between known effective practices and emerging concepts. The rating system provides a framework to help move the U.S. building industry to more sustainable practices by providing a standard measurement that can be used as a design guideline to promote whole-building, integrated design and construction processes.

Early Transfer of Risk

A significant benefit to the state was the early transfer of risk from the state to the design-builder. This was achieved when the design-builder became responsible for not only the design, but for the entire procurement process. Listed below are some examples where the risk was transferred from the state to the design-builder.

- **Project Delivery.** Design-build creates a single responsibility and reduces litigation. It puts an Architect of Record in an environment of close collaboration with the general contractor, specialty subcontractors, and manufacturers. Centralizing responsibility reduces claims and change orders.
- **Public Procurement Process.** The owner's administrative burdens are reduced because the procurement of design and construction services is consolidated into a single selection process. Utilizing the "best value" design-build legislation where award is made to the design-build entity whose proposal is judged as providing the best value in meeting the interests of the department and meeting the objectives of the project allowed the state to

designate five license classifications or trades that were deemed most important during the prequalification phase. This approach benefited the state by allowing a thorough evaluation of the major project participants rather than accepting the team that simply provided the lowest price. With acceptance of the Stipulated Sum, the design-builder assumed the risk of budgeting and possible cost overruns for the procurement of the remaining trades and goods. By sequencing the construction documents with the bidding schedule, the remaining trades were procured by the design-builder utilizing the public contracting process, which included low bid and SBE/DVBE requirements, but allowed for the pre-qualification of the trade prior to acceptance of the bid.

- **Tenant Improvements, Programming, and Design.** It was in the design-builder's scope of work to verify the tenant's program requirements prior to completion of interior design, thereby greatly reducing changes in tenant needs during construction.
- **Design Errors and Omissions.** The burden on the owner to mediate disputes between the Architect of Record and the contractor is eliminated because the single entity design-builder may be held contractually accountable and responsible for the entire project. In comparison, the design-bid-build project delivery system requires the owner to be concerned about loss of communication and misunderstanding between designers and contractors, which may create legal and liability issues, as well as additional costs.
- **CEQA.** The timing of the East End Complex CEQA process began early enough to identify the required mitigation measures. This allowed the state's management team to fold these requirements into the design-builder's contract requirements.
- **Builder's Experience.** The design-build procurement process took advantage of the builder's experience and expertise much earlier in the process. This allowed early identification of potential problems and conditions to be resolved at the lowest cost. Scheduling, commissioning, and coordination took place when each element had the greatest influence.
- **No Claims.** The best value selection process and the single point of responsibility for final design and construction assured a highly qualified and motivated pool of design-build entities. It is significant to point out that this \$400 million project was completed without claim. While design-build does not guarantee no claims, the flexibility of reacting to change allows mutually acceptable solutions to changes and conflicts.
- **Stipulated Sum.** As a requirement of the RFP, each pre-qualified design-build entity was required to agree to complete the design and construct the project for a stipulated sum as estimated by the state. This provided a level playing field for each team to be evaluated on their particular list of enhancements and other RFP responses. The evaluation was based on "best value" as designated by the provisions of GC Section 14661 (Chapter 252, Statutes of 1998 (SB 776, Johannessen)).

Other Benefits Realized

LEED™ 2.0 Gold Rating. The Block 225 project located at 1430 N Street achieved the LEED™ 2.0 Gold Rating recognition from the U.S. Green Building Council. The certification complements

a list of monumental achievements associated with this project by adding the following distinctions:

- The largest LEED™ 2.0 Gold Rated project in the world at the time of award.
- The first LEED™ certified state government building in California.
- The first LEED™ certified building of 2003.

LEED™ considers design elements and process that were incorporated into the East End Complex such as:

- Energy efficiency and on-site renewal energy systems;
- Improving energy efficiency and on-site renewal energy systems;
- Enhancing indoor environmental quality by improved design of the HVAC systems and selection of low-emitting interior building materials;
- Improving water efficiency;
- Increasing the amount of recycled and environmentally preferred products;
- Reducing the amount of construction waste from landfills; and
- Utilizing a building commissioning process that includes an indoor air quality management plan for the construction and pre-occupancy phases to ensure that building systems function together as designed and that the indoor air quality is below the maximum chemical levels established during design.

Project Enhancements

The design-build selection process utilized the enhancements proposed by the competing design-build teams as part of the criteria to determine best value. These enhancements were proposed by the teams that each would provide the project within the agreed Stipulated Sum. These enhancements were above and beyond the RFP requirements or criteria. The TEC evaluated the proposals and made recommendations as to the effects on the performance of the buildings. The following enhancements were provided by the selected design-build teams and were included in the complex.

- **The moment frame structural system** that was utilized for the Blocks 171-174 buildings allows greater use of open floor plans by a structural design that has fewer column supports. This permits more flexibility in workstation planning and better space plan development. As business needs continue to grow, shrink, or otherwise change with California's requirements, the more flexible a work area must be. This structural system allows work areas and subsequent modifications to easily respond to the occupants' business strategies. Additionally, open space plans maximize natural light penetration into office areas.
- **Extended service and maintenance warranties** provided by the design-builders create a sense of co-ownership. With extended future presence at the East End Complex, the design-builder takes more responsibility for the overall durability of the design and construction. The design-builder's "extended ownership" of the project directly impacts the design-builder's reputation for future work.
- **Increased bicycle storage capacity** allows for still more bicycle enthusiasts to ride to work than originally planned. The increased bicycle use takes more occupants out of freeway-bound vehicles that use gasoline or create traffic congestion.

- **Enhanced acoustic performance of glazing and wall systems** allows for better utilization of interior space, allowing more areas to be multi-functional rather than specialized for conference rooms or similar uses. Changing business needs are quickly accommodated with less expense.
- **The upgraded “cool” roofing systems** reflect more than 70 percent of solar radiation/sunlight, lowers roof temperature to 15°-25° above the ambient temperature, and lowers cooling load by 10-15 percent, extending the life of the cooling equipment.
- The installation and use of over 5,500 **photovoltaic panels** on the roof produce up to 160 kilowatts of electricity on site.
- Utilized **low-emitting building materials with high to very high recycled content**, as well as diverting 97 percent of construction waste to recycling centers made the East End Complex a model for sustainable construction. Some examples of high-recycled content building products incorporated into the East End Complex include structural steel, concrete, carpet, resilient flooring, wood veneers, acoustic ceiling tiles, exterior glass and glazing, signage, and wheel stops.

Green Team Review. The Green Team, comprised of representatives of the CEC, CIWMB, DHS, and ARB, provided its comments as to the benefits of the design-build process, any problems that were encountered, and lessons learned during design and construction of the East End Complex. Their comments relate more to green (sustainable) issues than the design-build procurement process, i.e., the development of the special environmental requirements specification; the design-builder selection process; the procurement of goods; and green team oversight. Nonetheless, their comments are incorporated into this report.

Green Team – Benefits that the state realized from use of the design-build approach. There are numerous benefits and innovations realized from the design-build process.

- **Development of a landmark specification for screening building materials based on their chemical emissions, recycled contents, and other sustainable criteria.** This specification entitled Section 01350: Special Environmental Requirements was developed by one of the two design-build teams. It was incorporated in both design-build contracts. It has now been implemented in numerous projects nationwide and has established a new standard on how sustainable building materials are specified.
- **Development of landmark specification for modular systems furniture based on their chemical emissions, recycled contents, task lighting energy efficiency, and other sustainable criteria.** Although this specification was not a direct result of the design-build process, it was a result of the efforts of a multi-agency Green Team formed to assist the DGS in defining the sustainable goals for the project as well as assisting the design-build teams in developing sustainable specifications. The specification for modular systems furniture was developed by the Green Team as part of the DGS' three-year, \$60 million contract. This specification was developed because modular furniture purchased under the statewide contract was installed at the East End Complex and without remedy of the chemicals emitted from the furniture, efforts to enhance indoor air quality at the East End Complex would have been undermined by emissions from the modular systems furniture. The state's Prison's Industry Authority, which has the first right

of refusal on any modular systems furniture order, also met these requirements on a voluntary basis.

- **Market transformation.** The size of the project meant manufacturers were more willing to modify their product or manufacturing to conform to the specifications. This, in turn, made new or improved products available to others. As a result of the widespread use of this specification, numerous building material manufacturers have reduced chemical emissions and have increased post-consumer recycled content in their products. For more information on this subject, please visit the following websites: www.ciwmb.ca.gov/Publications/default.asp?pubid=983 or the web page: <http://www.ciwmb.ca.gov/GreenBuilding/CaseStudies/GovtOffice/EastEnd.htm>.
- **Innovation without extra cost.** The design-build process allowed the builders greater flexibility and opportunities for innovation especially in the area of alternative sustainable building materials not widely used in traditional construction as well as in the area of energy efficiency. The design-build teams were allowed to conduct their own market research and develop their own specifications based on general performance goals set forth by the state.
- **Underfloor air supply system.** The building on Block 225 was designed and built with an underfloor air supply system. During the interview process of prospective design-builders, this type of system was strongly recommended to the state by several teams due to potential energy savings and improved indoor air quality, providing occupants greater comfort. One team even offered this air distribution system as an enhancement without additional cost to the state. The state decided to construct one of the five buildings with this type of air distribution system and to conduct a research study on its effectiveness. This study is in progress by the CBE at the University of California, Berkeley.

3. Problems Identified with Design-Build

“Bridged” Design-Build Procurement

The project utilized the “bridged” design-build procurement process, a modified design-build approach. Unlike the standard design-build approach, the “bridged” method described the architectural character in the criteria documents. The “bridged” design-build process allowed the state to recognize the advantages of design-build while remaining in early control of the design process. The aesthetic control was particularly important due to the necessity for the design scheme to complement its physical environment, specifically, the State Capitol, Capitol Park, and the residential neighborhood of midtown Sacramento. This approach enabled the state and the local community to participate in the development of the architectural design and monitor the design process in much the same manner as in a design-bid-build scenario.

The legislation required that prior to the department entering into a design-build contract, the department was required to submit significant documentation as the basis upon which the design-builder would be selected for the design and construction the facilities. The documentation included:

- the request for qualifications, which included: a) mandatory required information about the design-builder’s team, licensure, financial information, insurance, and disclosure of prior

violations, claims, arbitration, and litigation; and b) subjective criteria about the relative experience of the team;

- site development guidelines were described in the design requirements of the RFP. The EIR for the Capitol Area Plan addressed building locations and size limitations and depicted general site development parameters. Additionally, the 1997 Comprehensive Facilities Plan further identified building massing and overall site characterizes;
- architectural and all system design requirements were contained in the RFP documents and drawings;
- contractor selection criteria was developed into an evaluation handbook for the selection committee in evaluating and scoring the proposals submitted by the design-builders; and
- performance criteria and standards for the architecture and all components and systems of the facilities were also contained in the narrative requirements of the RFP.

Additionally, the Legislature wanted information in as much detail as was prepared for the San Francisco Civic Center Complex that covered the quality of materials, equipment, and workmanship to be used in the facilities. The Legislature was provided with the “look and feel” of the exterior of the complex, through the use of renderings, a three-dimensional model, and material samples. The Legislative Analyst noted in her report that “the detailed design of the exterior building facades and the adjacent land (such as walkways and landscaping) have been established by the DGS. According to DGS staff, only minor changes could be made to these aspects of the project by the design-build team.”

Bridging Documents. The design-builders believed that the “bridging” documents were too restrictive, limiting the opportunities for innovation and best value. A clear understanding of the Master Architect’s design intent was not well communicated. The criteria and requirements ranged from very prescriptive specifications to very loosely defined performance criteria.

System Confirmation. The process and goals for system confirmation need to be more clearly defined. Again, a clear delineation of the design intent whether it be aesthetic or technical needs to be conveyed to the design-build team during the RFP response period.

Construction Documents. The state needs to develop a more structured protocol for accepting receipt of final construction documents. This will minimize the misunderstandings and erroneous assumptions as to what the design-build team intends to provide and lead to required scheduled reviews.

Timely Reviews. All parties need to have a clearer understanding of their scope and responsibilities in order to provide timely reviews. The immediacy of the process from design to construction was not always appreciated by persons responsible for timely reviews.

Corporate Culture. The success of design-build is often determined by the depth and commitment of trust and cooperation between owner and design-builder. Too often the corporate “low bid” attitude can rise up resulting in adversarial posturing. The design-build process requires a team approach. While this retreating to “low bid” or design-bid-build corporate attitudes was not the norm, there were significant instances sufficient to warrant a caution. The process requires a very high level of cooperative skills and team chemistry. This element is best defined and screened during the pre-qualification and selection process.

Green Team – Problems that have been encountered from the use of a design-build approach. The Green Team cannot identify any. Given that the Green Team became involved after the exterior of the building was designed, it was extremely beneficial that a design-build process was used allowing the further refinement of the design to incorporate additional green and sustainable measures. Some additional green and sustainable measures would have been possible had the Green Team been involved in the exterior building design process.

4. Lessons Learned From Design-Build

As the DGS celebrates the success of the East End Project, each project is unique and, in hindsight, there is always something that could have been done differently or better. Listed below are a few lessons learned that were submitted by individuals that participated on the project and compiled into categories.

Administration.

- Outreach and public relations should be the responsibility of the state team not the design-builder.
- Establish the scope of involvement of the Master Architect's consultant team in the Master Architect's contract.
- Use of designated subcontractors allows the design-builder to build a team early in the process.
- Establish a protocol for the communication and interaction between the state's Master Architect and the design-builder and the design-builder's Architect of Record. Include this requirement in the management plan.
- Internet based project management programs can be an excellent communication tool provided all parties agree early on as to the ground rules for access and levels of access. Misunderstanding breeds mistrust and defeats the openness of such systems.
- Retention of the services of the Master Architect and/or a Project Consultant will provide the owner the expertise to protect the owner's rights and interests. This role was traditionally provided by the design architect who has now joined with the builder. Much of the potential for adversarial situations can be mitigated by teamwork built on trust and understanding.

Art Program. An allowance of one percent of the estimated construction cost was set aside for the Art Program. The program was overseen by a committee appointed by the Secretary of the State and Consumer Services Agency. This committee developed the RFQ and commissioned the art work for the project. This activity occurred after the design-build contracts had been awarded and well into their development of final construction documents. While the design-build process can better accommodate late scope changes, this late development presented a myriad of coordination problems.

The artists' contracts were assigned to the design-build teams to manage. Many of the artists failed to appreciate the importance of schedules and the need to integrate into an ongoing construction project.

- The art program should be integrated as early as possible into the design of the project.
- The selection process should involve the State Management Team as well as the Master Architect and the Architect of Record.

- Selection qualifications should emphasize experience with public art and their execution within the larger context of a construction project.
- Clearly define the roles and responsibilities of the artist and the art coordinator or consultant especially as to construction scheduling, integration into structural and other systems, and code compliance.
- Fully integrate the Art Program into the project's QA/QC plan as well as the commissioning plan. The latter is critical when the art work requires interface with any building systems such as water, drainage, electricity, electronics, etc.

Budget/Stipulated Sum. After review of estimates provided by the Master Architect and the Project Consultant, a stipulated sum was established. Each short-listed design-build team was asked to agree to complete the design and construct the project for this stipulated sum. The selection process then included evaluation of each team's list of enhancements and other criteria in the RFP.

- Provide reconciliation of the estimates during early design development.
- Identify market contingencies in the estimate. This may be especially critical for materials with volatile pricing. The current crisis in steel pricing was cited.
- Several teams expressed a preference for a stipulated sum performance based RFP. The design competition among the short-listed teams will maximize the best value by providing teams the flexibility to develop the best solutions.
- Segregation of core and shell costs from tenant improvement costs would help stabilize the cost associated with core and shell. Tenant improvement scopes have a tendency to change often and the isolation will allow a segregated cost control process.

Design and Construction Document Review. The Master Architect and/or the Project Consultant and their respective engineering consultants must include in their scope of services responsibility to provide design reviews with the Architect of Record. Careful attention must be given to conformance to or deviations from the RFP criteria and requirements. The design role for the design-build team is the responsibility of the Architect of Record. As with the traditional design-bid-build process, the Architect of Record is responsible to design the project in conformance with the agreed scope and in accordance with applicable codes and ordinances. Projects with special plan check requirements such as hospitals, schools, and essential service facilities require a plan check process through agencies charged with these special reviews. All other projects are essentially self-certified except for access compliance and SFM requirements. It is vitally important that the Architect of Record understand this responsibility and accept and attest to compliance of the design.

- Schedule periodic "over-the-shoulder" reviews with the design-builder's Architect of Record. Primary focus should be the clarification of RFP criteria and requirements.
- Mutually agreed upon schedule must include design review milestones.
- Require a formal peer review process for disputed design issues and RFP interpretations.
- The State Management Team must participate in all design review meetings.
- The state inspectors must be included in the design review process.
- Construction documents must be submitted to the State Management Team prior to construction of that portion or element of the work. There is a tendency to "design" by shop drawings or submittals. This circumvents the review process and can result in faulty or noncompliant designs.

- A formal and process-defined review protocol must be established and adhered to.
- The design-builder must submit annotated specifications and criteria referencing and defining deviations from the contracted RFP. All such changes, substitutions, and deviations must be included in a change order.
- Confirm the processes and protocols described in the design-builder's management plan within 30 days of the Notice to Proceed.
- The RFP should emphasize the design-build team's responsibility to provide a complete set of construction documents.

Energy Modeling. The RFP required the design-builder to demonstrate the required energy consumption performance of the project utilizing the DOE's DOE-2 modeling software.

- Energy modeling should be included as major milestones in the master schedule. The extent and frequency of the modeling is dictated by the particular circumstances of the systems involved.
- The criteria documents should clearly define the level of design completion required for the modeling(s).
- Major changes to the design and/or construction of MEP systems should be reviewed for possible additional modeling.

QA/QC. The RFP required the design-builder to develop a QA/QC Plan. It is important to caution that the plan must not inhibit innovation in design and/or construction. The plan should also promote cross-discipline collaboration between various trades and specialties. This same cooperative approach should be the basis for a plan that promotes the concept that QA/QC is everyone's responsibility.

- The QA/QC plan must be submitted and approved prior to beginning any construction.
- The state's inspection team must be a major contributor towards the development of the plan. It is suggested that the state's lead inspector be designated as chairing the QA/QC team meetings.
- The plan must be developed in conjunction with the commissioning plan.
- The reporting and authority hierarchy must be consistent with the approved management plan and avoid any perception of a conflict of interest.
- It is strongly suggested that the designated QA/QC Officer report directly to the corporate or regional headquarters, bypassing the jobsite chain of command. This officer must be given the autonomy and authority for independent decisions when dictated by QA/QC issues.

Schedule. A fully detailed schedule is paramount to the success of a project. This is even more critical in the design-build delivery method because the constricted time allotment and the task of finalizing the design and completing construction documents occurs during what is often perceived as the construction phase. The danger here is to prioritize or begin construction before the design and construction process is fully developed and committed to. The schedule must be required and updated on a regular basis.

- During the design phase, weekly design meetings are essential. A detailed schedule for the design process should be required within 30 days after the Notice to Proceed.

- The design schedule should also include all coordination tasks and the allotted time for review and approvals. This coordination should include tasks for the Architect of Record and his consultants as well as the state's management team, its consultants, and other agencies as required.
- It is suggested that the schedule be divided initially into design activities and construction activities. These baselines should then be merged into a single schedule as construction activities firm up.
- Contract requirements must include required intervals for updates.
- The baseline schedule should be augmented by a two or three week look ahead schedule to be reviewed and discussed at the weekly Owner/Architect/Contractor meetings.

Scope of Work.

- The role of the state's goal teams, i.e., "Green Team", "Art Panel", "Excellence in Public Buildings", needs to be defined in the development of the original scope of work. A hierarchy and final resolution plan in implementing these goals needs to be part of the criteria documents.

Systems Confirmation. After award of the contracts, each design-build team was responsible to review their system responses to the RFP with the State's Management Team and their consultants. Each system, i.e., mechanical, electrical, structural, etc., was required to be presented as to its response to the RFP criteria documents and performance criteria.

- The system confirmation process must assure that the design-builder's system and architecture met the design criteria in both specifics and design intent.
- The review of systems must be included in the Master Architect's scope of services.
- Hold progress meetings in order to bring all team members up to date rather than wait for an "all or nothing" presentation.
- All modifications must be recorded in an annotated specification as well as issued in a change order.
- Require fully developed construction documents. Do not allow design and construction via submittal or shop drawings.

Utilities.

- The design-builder should be contractually responsible for coordination of utility services and connection fees.

Green Team – Lessons learned that may be applied to a future project.

- **Having a multi-agency Green Team was important for oversight.** In this multi-agency group setting, project goals were sufficiently evaluated, the pros and cons of design and construction alternatives were discussed, and solutions were negotiated when one agency's interest conflicted with another agency's. The Green Team recommends that the state continue this approach in large state projects, especially those large enough to encourage market transformation. Furthermore, we recommend that the state identify a single person from the project's management team to be responsible for coordinating and overseeing all the green issues from the very early stages of the design process through construction and until the early phases of occupancy. This person should have training on all aspects of sustainable construction and access to expertise in various state agencies.

- **Sustainable design and construction does not always imply higher first costs**, and even when additional funds are needed, they are usually only a few percent of the total building costs. The design-build process allows teams to offer enhancements and innovation to a project that the low-bid process cannot accommodate which, in this case, was accomplished without extra cost to the state. For additional information, refer to *Costs and Financial Benefits of Green Buildings – A Report to California’s Sustainable Building Task Force, October 2003*, at www.ciwmb.ca.gov/greenbuilding/Design/CostBenefit/Report.pdf.
- **The design-build process allows the builder to develop their own specifications** based on general performance guidelines set forth by the state. It also allows the builders to conduct their own market research, bring their own innovation ideas to the table, and utilize the best practices available at the time the building is designed and constructed. This cannot be accomplished during a low-bid process where specifications may be out of date by the time a building is constructed or the state may have to pay for costly change orders to accommodate innovation.
- **Retaining teams with proven record of sustainable building experience was extremely important.** Also having Green Team participants involved in the selection process for hiring the teams was equally important and helped assure the design teams had actual green building experience (some firms are quite adept at overstating their experience).
- **Allocating 20 percent of the scoring for experience in sustainable construction** during the selection of the design-build teams sent a strong message to the building industry that the State of California was putting great emphasis on sustainability.
- **Team building exercises were beneficial** for developing a rapport among the various players.
- **The fact that there was legislative oversight and cabinet level support for green building issues was very important.** Furthermore, technical staff had direct communications with cabinet level staff, greatly facilitating the implementation of sustainable features into the project. This high-level support and accountability was essential for the success of “greening” this project and should be including in future large capital projects like the West End.
- **Future legislation for large state projects should explicitly state the sustainable goals** of each project and should allocate sufficient funding for its implementation to provide long-term cost savings to taxpayers. It would have been better to have had a set of green building goals stated up front at the very beginning. We recommend that in future projects, the state clearly describe these goals in the beginning. This can be accomplished by specifying a LEED™ silver rating (or higher) and using the California LEED™ supplement, which is designed to enhance sustainability beyond the basic requirements of LEED™ and identify California laws and guidelines that may pertain to the implementation of LEED™.
- **In the future, the bond language should include performance goals for the project.**



Capitol Area East End Complex, Blocks 171-174 and Block 225

III. JOINT RULES COMMITTEE RECOMMENDATIONS – SUMMARY

This section provides a summary of recommendations the JRC submitted in its March 25, 1999, report. The quarterly progress report was a cumulative report where items that were active were reported and carried throughout the report and those items that no longer required reporting were retired, reducing the size of the report. To view the entire section of the report, access the DGS web site at: <http://www.legi.dgs.ca.gov/Publications>, select the appropriate year (i.e., 2000) and the appropriate report (i.e., Quarterly Report on Capitol Area East End Complex--April, 2000). Each section is noted with the month and year retired.

1. Design-Build Method

The Joint Rules Committee finds that use of the design-build method for the East End Project was authorized by the enabling legislation. It is incumbent upon DGS to meet the efficiency and sustainability criteria outlined below to offset concerns about design-build. The Committee, therefore, will periodically review progress of the East End Project in order to ensure these goals are met.

Beginning July 1999, the DGS submitted quarterly progress reports to the JRC, as required by GC Section 8169.5/1999. The last quarterly progress report submitted was the July 2003 report.

2. RFP and RFQ Evaluation Criteria

Retired April 2000

The Committee finds DGS should continue to work with the LAO to make the proposed evaluation criteria for the issuance of RFQs and RFPs more objective. The Committee will periodically review the RFP and RFQ criteria to ensure that the agreed upon specifications related to green construction, energy efficiency and sustainable design suggested by the CIWMB, CEC, [DHS, and ARB] and others are incorporated and meet the articulated goals.

In July 1999, agreement was reached for the RFQ selection criteria. The DGS met on five occasions with the LAO and reached final accord with the RFP evaluation and selection process and criteria that included the CEC, CIWMB, DHS, and ARB's desired weighting of the scores and criteria, which represented approximately 20 percent of the total scoring.

The evaluation criteria included the following categories:

- Certification of the Stipulated Sum as prerequisite to further evaluation of the proposal;
- Designated Subcontractors;
- Design and Construction Management Plan;
- Small Business/DVBE Utilization Plan;
- Building Systems Description; and
- Quality Enhancements.

In November 1999, proposals were received and distributed to the TEC for evaluation and consensus scoring. With a briefing from the TEC on their findings and the evaluation report in hand, the Selection Committee conducted interviews with the design-build teams. At the conclusion of the final interview, the Selection Committee deliberated the presentations, reviewed the submitted proposals and TEC evaluations, and formed a consensus choice as to which design-build team represented the best value to the State of California.

3. Periodic Updates

Retired January 2000

The Committee requests DGS provide the Committee with quarterly updates to assist in monitoring the development of the RFP and RFQ selection criteria.

Beginning July 1999, the DGS submitted quarterly progress reports to the JRC, as required by GC Section 8169.5/1999. The last quarterly progress report submitted was the July 2003 report.

4. Coordination with State Environmental Agencies

Retired April 2000

The Committee recommends that DGS implement appropriate energy efficiency and sustainability measures throughout the design and building process, including, but not limited to adherence to the RFP and RFQ guidelines supplied by CEC, CIWMB, ARB and DHS.

Between March 18, 1999, and November 16, 1999, during the RFQ and RFP phases, the DGS, CEC, CIWMB, DHS, and ARB met on approximately 20 occasions to review the design's sustainable features and finalize suggested modifications to the Criteria Documents. This included finalizing the RFQ documents and focusing on the commissioning process. During the RFP phase, the team evaluated each proposal's waste management plan and building performance assurance plan. The evaluation also included: building systems descriptions,

energy efficiency and sustainable design measures for overall performance of the systems in energy efficiency, sustainable measures including recycling and resource conservation, indoor air quality, alternative energy technologies, other factors, and the proposed quality enhancements for sustainable design measures.

The contract documents included energy efficient and sustainability measures as discussed with and recommended by the CEC, CIWMB, DHS, and ARB.

5. SMUD Proposal

Retired April 2000

The Committee recommends DGS give full consideration to the SMUD proposals for a heating and cooling system within the project, in keeping with energy efficiency goals.

The DGS received a proposal from SMUD in April 1999, to provide a district heating and cooling plant to serve the East End Complex. This plant was to provide heated and chilled water for the HVAC systems for the project. This proposal was reviewed with the project's design engineers and SMUD over several meetings through the spring and summer of 1999. On August 19, 1999, a final meeting was held to respond to and evaluate SMUD's comparison to the DGS analysis. On September 29, 1999, SMUD notified the DGS by letter that the respective positions on the items at issue could not be resolved and SMUD was withdrawing their proposal.

6. Life-Cycle Costs of Energy Efficiency Measures

Retired July 2003

The Committee recommends that when reviewing the costs of energy efficiency measures, DGS review them in terms of savings over the life of the building, and measures, rather than in terms of up-front costs. The Committee further recommends participants explore and identify other appropriate funding sources to augment the project funds. Among other things, these sources could include both public and private funds that are available for green building construction and sustainable design features.

The DGS is required by law (GC Section 15814.30(c)), to determine what is "cost effective" by evaluating the savings over the life of the building or measure being considered. To ensure a consistent evaluation process, Part 3, Chapter L – Design Requirements of the construction documents included the following cost-benefit analysis methodology that requires results to be shown in terms of present value and simple payback life-cycle costs.

Cost-benefit Analysis

1. This is intended as a guide for the design-builder to justify a system where the design requirements give multiple choices with a stipulation that the decision be based on a cost-benefit analysis.
2. First cost: Provide accurate cost estimate, break out all major components, labor and materials, markup, and contingencies.
3. Energy cost: Include utility rate schedules used. Provide all supporting calculations for energy use results including equipment efficiencies, operational schedules, weather data, temperature setpoints, load calculations, and all input and output data from any computer simulations.
4. Other costs: Maintenance costs, replacement costs, salvage costs, and additional operational costs (personnel or materials) shall be included if they vary between the options considered.

Single Ply Roofing

SMUD

Rebate = \$50,000

The SMUD Cool Roof program provided a rebate to encourage growth in the new construction roofing marketplace for cool, highly reflective, and emissive roof coatings and materials like those applied to the East End Complex buildings roof surfaces. The Cool Roof program formed alliances with the Sacramento roofing contractor community and state and local governments by providing \$0.20 per square foot (of cool roof surface) incentive to install products that are on the U.S. Environmental Protection Agency's Energy Star® Roofing product list. The Cool Roof program goal is to reduce SMUD's electricity peak demand and air conditioning energy load associated with high solar energy absorbed on the surface of roofs and rooftop ducts during the summer months, as well as to mitigate the overall urban heat island effect.

Electric Vehicle Charging Stations

SMUD

Grant = \$15,000

To support the use of zero emission vehicles, SMUD provided a grant to install electric vehicle charging stations in preferred parking locations in the basement level parking areas.

Commissioning Plan

SMUD

Incentive = \$5,000

To support the commissioning process, SMUD provided an incentive to create a commissioning plan. The commissioning plan included procedures and information necessary for each system/piece of equipment detailing pre-start, start-up and functional tests. Test and balance, controls checkout and calibration, and pre-start, start-up, and functional tests were performed and recorded. Non-conformance and deficiencies were documented, noted, and addressed. IAQ multi-test data prepared during the commissioning phase was included. Sustainable materials/products/systems certifications were reviewed and compiled. Operations and Maintenance Manuals and warranties were compiled and organized. At the end of this phase, the updated commissioning report was prepared and issued to the state and subsequently transmitted to the utility company sponsoring the incentive.

LEED™ Registration

SMUD

Incentive = \$5,000

This incentive was intended to encourage the use of the U.S. Green Building Council's LEED™ Rating System. All five office buildings in the East End Complex are now LEED™ Certified, with the Block 225 Office Building earning a LEED™ Gold rating.

Underfloor Air Distribution Design

SMUD

Incentive = \$5,000

Delivering air from below the floor is designed to provide increased energy savings, improve indoor air quality, and give the occupant the ability to personally adjust their surrounding air distribution. An evaluation of this system is under study by the CBE (see Underfloor Air Distribution Study above).

7. Sustainable Design and Green Building Construction in the Issuance of RFQs and RFPs

Retired April 2000

The Committee recommends that DGS consult with CEC, CIWMB, ARB and DHS throughout the design-build process, in order to ensure compliance with articulated project goals, existing regulations, and the guidelines supplied by CEC and CIWMB.

Beginning in March 1999, weekly general meetings were held with the CEC, CIWMB, DHS, and ARB and continued through the design-build selection period, which was completed in January 2000. The CEC, CIWMB, DHS, and ARB continued in an oversight role during the subsequent development of the construction documents and through construction and occupancy (see No. 4, Coordination with State Environmental Agencies, of this chapter).

8. Green Oversight Mechanism

Retired July 2003

The Committee recommends that DGS, CIWMB, CEC, ARB and DHS develop an effective green enforcement mechanism of oversight and incentives to ensure compliance with articulated goals. This oversight mechanism would apply to the design-builder and DGS.

This mechanism should provide for review and input by the Department of Finance, the Legislative Analyst, the CEC and CIWMB to the Legislature through the budget process.

The project Green Team, which included representatives of the CEC, CIWMB, DHS, and ARB provided input and oversight to the project. Their participation in the development of the RFP requirements and subsequent evaluation reviews provided the sustainable practices expertise to the project. The Green Team continued their review and comment role during the development of the final design documents, including submittals and other inquiries. This oversight participation included access to the web based management system, attendance at regular progress meetings, focus groups, partnering sessions, and milestone celebrations. The Green Team continued their participation during the construction phase by providing input on materials and systems submittals, substitution requests, and commissioning.

The Green Team also participated in advising the DGS on the pre-occupancy testing procedures as they relate to the building and indoor air quality commissioning. The Sustainable Building Task Force through the DHS and Public Health Institute received a grant from the U.S. Environmental Protection Agency for long-term IAQ sampling at the East End Complex. Pre-occupancy IAQ sampling took place in March, April, June, and October 2003. Additional post-occupancy IAQ sampling took place in Spring 2004.

The CIWMB produced both five and 30-minute videos in Spring 2003. The five minute video is available at: www.ciwmb.ca.gov/Video/2002/EastEnd100.aspx. Several architects, engineers, project managers, and green team participants describe the project, process, and features of the Block 225 building.

9. DGS, CIWMB, CEC, DHS and ARB Agreements

Retired January 2000

The Committee finds that DGS, CIWMB and CEC [DHS and ARB] agreed to the following:

- a. All participants will be actively involved in the tasks to establish the underlying qualification and proposal requirements to maximize the opportunities to incorporate sustainability and energy efficient measures, in the requirements for RFQs and RFPs.*
- b. All participants will be actively involved in the development of criteria for the evaluation of RFQs and RFPs.*
- c. All participants will be represented on the RFQ Evaluation Team(s), Procurement Team(s), and Technical Proposal Evaluation Team(s).*
- d. DGS will provide the CIWMB and CEC [DHS and ARB] with all requisite materials and timetables involved in the RFP and RFQ process according to the schedule discussed.*
- e. All participants will work together to develop a process to institutionalize a cooperative working arrangement for use in future state construction and design projects. SB 280 (Bowen) may be a mechanism for the institutionalization of this cooperative process.*

The DGS, CEC, CIWMB, DHS, and ARB agreed to work together for the betterment of the East End Complex project. All parties were actively involved in establishing the criteria for qualifications and proposal requirements to maximize the opportunities to incorporate sustainable and energy efficient measures in the requirements of the RFQs and RFPs. In addition, all parties were actively involved in the development of the criteria for the evaluation of the RFQs and RFPs and participated in the RFQ evaluation process.

The evaluation criteria were grouped into categories with the CEC, CIWMB, and DHS agreeing to evaluate submittals in the category of energy efficiency and sustainable building measures (this category represented approximately 20 percent of the total RFQ scoring). This evaluation was combined with the other scores to determine the short-list for interviews. Similar evaluations by specific categories were utilized for the RFP evaluation. At their request, representation on the RFQ Evaluation Team, Procurement Team, and Technical Proposal Team was left to the individual agencies to determine.

Project directors experienced in major construction and the design-build process represented the DGS. During technical evaluations, the design team, on a consultative basis, assisted the project directors. As stated above, the energy efficiency and sustainable building measures category was evaluated by the Green Team. All parties were provided with the Evaluator's Handbook developed in agreement with the LAO. The DGS provided all parties with the RFQ and RFP documentation and schedules.

10. Executive Complex

Retired January 2000

The Committee evaluated the feasibility of adding an Executive residence complex to the East End Project, noting the inadequacy of the current Executive residence and office spaces. The Committee found that the East End Project has progressed too far, in terms of both time and money spent, to delay the project for land use re-assessment.

The Committee recommends, therefore, the Legislature and DGS consider alternate sites for assessment as a possible Executive complex, including the California Department of Food and Agriculture Building on "N" Street, among other locations.

Although the State Management Team was not involved in the assessment of possible sites for an Executive complex and this item was not addressed in the quarterly progress reports, herein are the results of the Governor's Permanent Residence Commission. The Commission was created by Senate Bill 1091 (Ortiz) (Chapter 732, Statutes of 1999) to provide the Governor and the Legislature with recommendations for the location and construction of a suitable and permanent residence for future Governors and first families of California. The Commission met between November 1999 and July 2000. The Commission recommended the following two sites on state-owned land in the Capitol Area for further consideration by the Legislature:

- Legislative Office Building site – between 10th/11th Streets and N/O Streets.
- Employment Development Department Headquarters site – between 8th/9th Streets and Capitol Mall and N Street.

The Commission's existence ended on June 30, 2000, per the enabling legislation. No further action has been taken by the Legislature regarding the Commission's findings. In the meantime, the City of West Sacramento has offered a 43-acre site to the State of California for the development of a Governor's Residence. A private foundation is being formed to oversee development of the residence. The state has until June 2005 to accept the West Sacramento site.

11. Transportation and Parking

Retired July 2003

The Committee finds that DGS should continue to reduce the negative transportation impacts and parking shortages created by the East End Project.

At the beginning of the project, both design-builders initiated traffic management plans with the City of Sacramento, which address the impacts and mitigations on traffic during construction.

In April 2001, the Capitol Area Commuter Survey ("State Your Mode") was completed and the results were compiled in July 2001. The survey targeted all state employees, including the Legislature, in the downtown area. The DGS finalized the TSMP as identified in the EIR for the Capitol Area Plan and the East End Complex. The TSMP included strategies to promote state employee commute alternatives such as carpool and vanpool use, public and commuter transit and shuttle services, and flextime/alternative work schedules. It was developed in conjunction with the recent assessment of the overall existing and future parking demand for state office facilities in the Capitol Area. The assessment considered the cumulative parking demand for other state-owned/leased facilities in downtown Sacramento and potential improvements in transit

services to the area. The TSMP identified specific measures that were included in the East End Complex, namely, automated teller machines in each building, on-site retail, an on-site childcare center, a 300 seat auditorium, food service, state shuttle service during peak commute periods, electric vehicle charging stations, available employees showers and lockers, bicycle parking and storage, and design features along Capitol Avenue incorporating bike lanes, drop off lanes, covered arcades along building facades, landscaping, and seating areas.

In April 2003, the DOF gave its approval to proceed, upon execution of the site lease with the Department of Transportation, with the construction of the peripheral parking lot located at 18th/19th and W/X Streets providing an additional 329 spaces. The construction was completed in November 2003.

12. Francis House Relocation

Retired April 2000

The Committee finds that Francis House performs a vital service to midtown Sacramento, as well as the county and the state, and has not previously requested public funding or taxpayer support. Given the unique situation of Francis House, the Committee recommends that every possible avenue to assist them in their relocation be explored by DGS, CADA and the City of Sacramento, including, but not limited to:

- a. DGS has agreed to provide the Community with a report regarding DGS's ability to use bond expenditures to assist Francis House in their relocation efforts. Should DGS be legally permitted to do so, DGS should provide Francis House with funding to relocate.*
- b. If it is found that DGS cannot expend bond monies to fund the Francis House relocation, DGS should provide Francis House with a suitable space in which to relocate. Those efforts should be detailed in the quarterly reports issued by DGS to the Committee.*

On October 5, 1999, Assembly Bill 883 (Chapter 625, Statutes of 1999) was approved by the Governor, providing project funds not to exceed \$120,000 to the Francis House for actual moving and related expenses. On November 15, 1999, the DGS approved the release of funds to the Francis House in the amount of \$100,000 to assist in the relocation to their new quarters at 1422 C Street, Sacramento. On December 13, 1999, the Francis House moved into their new quarters. The remaining \$20,000 authorized by the legislation was released in December 2000, after the completion of parking and other improvements to the new facility.

13. Neighborhood Impacts

Retired July 2003

The Committee finds that projects of this magnitude when introduced into an existing neighborhood, should make efforts to maintain a pedestrian-friendly atmosphere, and directly in line with the ULI's recommendations, include consideration of after hours activities (and the potential lack of them) when formulating a design. Further, the Committee finds that mixed-use is a valuable means to maintain such an atmosphere, and recommends DGS continue to consider ways to include mixed uses in the project.

At the beginning of the project, the DGS, the City of Sacramento, and CADA met regularly to discuss joint-use operating arrangements for the shared facilities of the project. At the completion of the project, the operating arrangements were still being finalized.

The Joint Use Task Force met seven times between June 1999 and January 2000. The Committee consolidated a number of issues into categories, but lacking a decision from the BEP,

the Committee determined the efforts to identify possible retail uses and opportunities within the Complex would not be effective.

No additional amenities were added to the project other than those that were designed into the project. The biggest concern was over the possible effects of adding additional mixed-use opportunities on the tax-exempt status of the funding bonds.

On April 3, 2000, a general project introduction meeting was held at the job site. Over 300 invitations were sent or delivered to residents and businesses adjacent to or near the project. Approximately 55 neighbors attended the meeting. Other neighborhood meetings were held in July 2000 and April 2001.

A project website, the "East End Home Page" (www.eastend.dgs.ca.gov), was developed so that the community could learn about the project and follow the progress of its construction activities. There were also three neighborhood newsletters issued to the surrounding community on June 2000, September 2000, and April 2001, with contact information and project updates.

In January 2001, the BEP submitted its letter of intent to the DGS for occupying the retail space in the complex. In April 2003, the DOF approved funds for construction of the 6,800 square foot retail space in Block 173 located at 17th Street and Capitol Avenue. In September 2003, the DGS and DOR signed the Memorandum of Agreement and Vending Facility Permit for the operation of the restaurant. The opening of "Joey B's Place", a full service public restaurant that provides breakfast, lunch, and dinner occurred on March 15, 2004. The agreement waives the priority to the Block 225 retail space located at the corner of 14th and O Streets, but if food service is proposed for the Block 174 retail space located at 17th and Capitol Avenue, the DOR/BEP shall have 90 days in which to exercise its priority option. Additionally, the DOR/BEP is providing coffee-cart/coffee-counter and vending machines in all five buildings.

14. Periodic Monitoring of Recommendations

Retired January 2000

The Committee requests DGS to submit quarterly reports to assist in monitoring the progress of East End Project plans for the issues articulated above, including the issuance of RFPs and RFQs, measures to encourage energy efficiency and sustainability, the development of sufficient parking areas, the encouragement of alternative transportation, and to evaluate the use of the design-build process in order to learn from DGS' experience with its use on this project.

Beginning July 1999, the DGS submitted quarterly progress reports to the JRC, as required by GC Section 8169.5. The last quarterly progress report submitted was the July 2003 report.

15. Project Enhancements

Retired October 2001

The Committee recommends that the Legislature consider a further augmentation for the East End Project to provide for additional housing, higher quality materials, enhancements to make the neighborhood more pedestrian friendly, and other mitigation measures.

No additional enhancements were identified that the DGS could bring to the Legislature and other affected parties that would have required augmentation to the project.

16. Significant Accomplishments and Schedule

The Letter of Understanding between the DGS, CEC, CIWMB, DHS, and ARB recommended this addition to the report.

This section was added to the quarterly progress report in January 2000, in order to report on the progress of design and construction related activities as well as project schedule milestones. This section was carried for one quarter after the initial reporting period.

Project Schedule

Major milestones are as follows:

Jan/98	Selection of Primary Consultants	Complete
Jul/98	PWB Approval of Block 224 Garage PPs	Complete
Nov/98	Award Design-Build Contract for Block 224 Garage	Complete
Nov/98	Complete PPs for Blocks 171-174 and 225	Complete
Dec/98	Submit Mandated Package to Legislature	Complete
Dec/98	Start Construction, Block 224 Garage	Complete
May/99	PWB Approval of PPs, Blocks 171-174 and 225	Complete
Jan/00	Award Design-Build Contracts for Blocks 171-174 and 225	Complete
Jan/00	Block 224 Garage – Complete Construction	Complete
Feb/00	Start Construction, Blocks 171-174 and 225	Complete
Jul/02	Block 225 – Complete Construction	Complete
Jun/03	Blocks 171-174 – Complete Construction	Complete

EXHIBIT A

Government Code Section 8169.5

GOVERNMENT CODE

SECTION 8169.5

(a) In furtherance of the Capitol Area Plan, the objectives of Resolution Chapter 131 of the Statutes of 1991, and the legislative findings and declarations contained in Chapter 193 of the Statutes of 1996, relative to the findings by the Urban Land Institute, the director may purchase, exchange, or otherwise acquire real property and construct facilities, including any improvements, betterments, and related facilities, within the jurisdiction of the Capitol Area Plan in the City of Sacramento pursuant to this section.

The total authorized scope of the project shall consist of up to approximately 1,470,200 gross square feet of office space and approximately 742,625 gross square feet of parking structures for use by the State Department of Education, the State Department of Health Services, and the Department of General Services as anchor tenants on blocks 171, 172, 173, 174, and 225, along with related additional parking on block 224, within the Capitol area. The acquisition and construction authorized pursuant to this section may not cause the displacement of any state or legislative employee parking spaces in the blocks specified in this subdivision unless the Department of General Services makes available existing state-owned parking spaces, acquires parking spaces, or constructs replacement parking that results in the affected employees' parking spaces being located at a reasonable distance from their place of employment.

(b) Subject to paragraphs (2) and (3) of subdivision (c), the department may contract for the lease, lease-purchase, lease with an option to purchase, acquisition, design, design-build, construction, construction management, and other services related to the design and construction of the office and parking facilities authorized to be acquired pursuant to subdivision (a).

(c) (1) The State Public Works Board may issue revenue bonds, negotiable notes, or negotiable bond anticipation notes pursuant to Chapter 5 (commencing with Section 15830) of Part 10b of Division 3 to finance all costs associated with acquisition, design, and construction of office and parking facilities for the purposes of this section. The State Public Works Board and the department may borrow funds for project costs from the Pooled Money Investment Account pursuant to Sections 16312 and 16313. In the event the bonds authorized by the project are not sold, the State Department of Education, the State Department of Health Services, and the Department of General Services, as determined by the Department of Finance, shall commit a sufficient amount of their support appropriations to repay any loans made for the project from the Pooled Money Investment Account. It is the intent of the Legislature that this commitment shall be included in future Budget Acts until all outstanding loans from the Pooled Money Investment Account are repaid either through the proceeds from the sale of bonds or from an appropriation.

(2) (A) If the department proposes to acquire the facilities on a design-build basis, prior to the department entering into an agreement pursuant to subdivision (b) to design and build the facilities on blocks 171, 172, 173, 174, and 225, as specified in subdivision (a), the department shall submit to the Legislature a copy of all documents that shall be the basis upon which bids will be solicited and awarded to design and build the facilities. The documents shall include the following:

- (i) The request for qualifications.
- (ii) Site development guidelines.
- (iii) Architectural and all system design requirements for the facilities.

(iv) Notwithstanding any other provision of law, the recommended specific criteria and process by which the contractor shall be selected.

(v) The performance criteria and standards for the architecture and all components and systems of the facilities.

(B) The information in the documents shall be provided in at least as much detail as was prepared for the San Francisco Civic Center Complex project and shall cover the quality of materials, equipment, and workmanship to be used in the facilities. These documents shall also include a detailed and specific space program for the facilities that identifies the specific spatial needs of the state agencies.

(C) If the department proceeds to acquire the facilities on a design-build basis, in addition to any other requirements imposed pursuant to this section, notwithstanding Section 7550.5, the department shall provide the Legislature, beginning on July 1, 1999, and every three months thereafter until the facilities are completed, with a status report that includes information regarding any benefits that the state may have realized from use of the design-build approach, any problems that have been encountered from the use of a design-build approach, and lessons learned that may be applied to a future project. The department shall issue a final report when the facilities are completed.

(D) If the department proposes to contract for construction separate from design, the department shall, prior to commencing work on working drawings for the facilities on blocks 171, 172, 173, 174, and 225, submit to the Legislature a copy of the preliminary plans for the facilities and a detailed and specific space program for the facilities that identifies the specific spatial needs of the state agencies.

(E) Regardless of how the department proposes to acquire the facilities, the department also shall submit all of the following information, which may be included in the bid documents:

(i) A final estimated cost for design, construction, and other costs.

(ii) How the department would manage the contracts entered into for this project to ensure compliance with contract requirements and to ensure that the state receives the highest level of quality workmanship and materials for the funds spent on the project.

(3) Except for the reports specified in subparagraph (C) of paragraph (2), the department shall submit to the Legislature the information required to be submitted pursuant to paragraphs (2) and (6) on or before December 1, 1998. Except for those contracts and agreements necessary to prepare the information required by paragraphs (2) and (6), the department shall not solicit bids to enter into any agreement to design and build or otherwise acquire the facilities or commence work on working drawings on block 171, 172, 173, 174, or 225 sooner than the later of April 1, 1999, or 120 days after the department submits to the Legislature the information required to be submitted pursuant to paragraphs (2) and (6). The Legislative Analyst shall evaluate the information submitted to the Legislature and shall prepare a report to the Joint Committee on Rules within 60 days of receiving the documents submitted to the Legislature. It is the intent of the Legislature that the Joint Committee on Rules meet prior to the date the department is authorized to solicit bids to design and build or otherwise acquire the facilities or commence work on working drawings for the purposes of discussing the report from the Legislative Analyst and adopting a report with any recommendations to the department on changes to the site design criteria, performance criteria, and specifications and specific criteria for determining the winning bidder. If the Joint Committee on Rules adopts a report prior to the date the department is authorized to solicit bids to design and build or otherwise acquire the facilities or commence work on working drawings, the department may solicit the bids or commence the work when the report is adopted by the Joint Committee on Rules. The Senate Committee on Rules and the Speaker of the Assembly may designate members of their respective houses to monitor the progress of the preparation of the documents to be submitted

pursuant to paragraph (2). The department shall prepare periodic progress reports and meet with the designated members or their representatives, as necessary, while preparing the documents.

(4) The amount of revenue bonds, negotiable notes, or negotiable bond anticipation notes to be sold may equal, but shall not exceed, the cost of planning, preliminary plans, working drawings, construction, construction management and supervision, other costs relating to the design and construction of the facilities, and any additional sums necessary to pay interim and permanent financing costs. The additional amount may include interest and a reasonable required reserve fund.

(5) Authorized costs of the facilities for preliminary plans, working drawings, construction, and other costs shall not exceed three hundred ninety-two million dollars (\$392,000,000). Notwithstanding Section 13332.11, the State Public Works Board may authorize the augmentation of the amount authorized under this paragraph by up to 10 percent of the amount authorized.

(6) The net present value of the cost to acquire and operate the facilities authorized by subdivision (a) may not exceed the net present value of the cost to lease and operate an equivalent amount of comparable office space over the same time period. The department shall perform this analysis and shall obtain interest rates, discount rates, and Consumer Price Index figures from the Treasurer and submit its analysis with the documents submitted pursuant to paragraph (2) of subdivision (c). For purposes of this analysis, the department shall compare the cost of acquiring and operating the proposed facilities with the avoided cost of leasing and operating an equivalent amount of comparable office space that will no longer need to be leased because either (A) agencies will no longer occupy currently leased facilities when they occupy the proposed facilities, or (B) agencies will no longer occupy currently leased facilities when they occupy state-owned space being vacated by state agencies occupying the proposed facilities. The analysis shall also include the cost of any unique improvement associated with the moving of an agency into any state-owned space that would be vacated by agencies moving into the proposed facilities. However, these costs shall not include the cost of renovating or modernizing vacated state-owned space that is necessary to accommodate state agencies in general purpose office space. This paragraph shall not be construed as authorizing any renovation of state-owned space.

(d) The director may execute and deliver a contract with the State Public Works Board for the lease of the facilities described in this section that are financed with the proceeds of the board's bonds, notes, or bond anticipation notes issued in accordance with this section.

EXHIBIT B

Design-Build Discussion to the Joint Rules Committee

Submitted on March 4, 1999

Introduction

Our decision to use a design/build process rather than the traditional design/bid/build for the Capitol Area East End Complex is based on our desire to produce the highest quality project in the shortest possible time frame for the least amount of money. The design/build delivery process allows us to combine the design and construction of the project, expediting the completion of the project. Our experience with the recently completed San Francisco Civic Center project demonstrates that design/build can produce projects of the highest quality while cutting schedules. Reducing the time it takes to design and construct a building saves money.

Generally, design/build is a procurement process in which the owner (the state) contracts with one entity to perform the design and construction of a building. In design/bid/build, the owner first contracts with an architect for the design, then bids the construction, and awards the construction to the lowest bidder. Design/build provides a more collaborative working environment than design/bid/build, which is by its very nature more adversarial. Owners prefer design/build to design/bid/build because it is believed that:

- The project will cost less money.
- The project will be done faster.
- The project will be of a higher quality.
- The owner will only have one contract for design and construction.
- The owner will have less financial risk.

For the Capitol Area East End Complex we are proposing to select a design/build team that will design and construct the highest quality project for a price predetermined by the state. This design/build selection process is outlined in Government Code Section 14661. A copy of our design/build selection process manual is attached for your review.

These benefits of design/build are described more thoroughly in the following text.

Quality

The Capitol Area East End Complex, sited at the east end of Capitol Park, is a project that must make an architectural statement similar to that made by the Office Building One and the Library and Courts Building on the west end of Capitol Park. The buildings must be of the highest possible quality in terms of esthetics, using materials that will stand the test of time, and having systems that will be the highest quality while using the least amount of energy. Finally, the buildings must be places that provide a productive and safe environment for the state employees who will work in them. We believe that design/build is the only project delivery choice that will help the state meet these goals.

As part of the Request for Proposal (RFP) process the competing design/build teams will be asked to submit quality enhancements. Quality enhancements are those modifications to the project's technical requirements that improve upon the project without increasing the price of the project. Examples of quality enhancements that might be expected are in the structural design of the project, the finishes in the interior spaces, more cost-effective heating and cooling systems, and the more innovative "green" building measures. Quality enhancements will be evaluated according to a scoring system described in the RFP documents in order to determine the proposal that provides maximum value to the state.

Schedule

One of the biggest advantages of design/build is a reduction in project delivery time. The combination of the design and construction phases results in reduced completion schedules. A shortened project reduces costs that are a direct function of time such as management costs by the state, overhead costs of members of the design/build team, inflation on materials and labor, and financing costs. More recently, the Department of General Services (DGS) has completed two design/build projects, the San Francisco Civic Center Complex and the Elihu M. Harris Building in Oakland.

The San Francisco Civic Center Complex is a 1,000,000 square foot courts/office building with a design/build contract price of \$246,000,000. The total contract time for design and construction was 42 months. Although there is not a direct comparison available to design/bid/build, one approach would be to compare the total time spent by the design/builder on design and bidding the project (22 months), and the total time spent by the design/builder on construction (33 months). This sum of the two, 55 months, would be comparable to the 42 months spent to both design and construct. The difference is 13 months or 24 percent faster. A similar comparison for the Elihu M. Harris Building reveals that design/build was 35 percent faster. Finally, a recent study on project delivery systems in the United States concluded that overall design/build is 33 percent faster than design/bid/build.

Cost

Cost savings/growth on a capital improvement project can be a very subjective issue. Many variables contribute to why a project finishes within budget or why a project exceeds the budget.

We believe that design/build provides a better chance for the project to realize cost savings than does design/bid/build by greatly reducing the potential for cost overruns during construction. In design/build the owner has the benefit of the design team and the construction team working together to meet the owner's project requirements for the least amount of money. The design/builder is highly motivated to develop the most cost efficient means for performing construction. In design/bid/build, the owner does not have the benefit of having the construction contractor at the table during design and must wait until bids are in hand to determine whether or not the cost will be within budget. If a bid overrun does occur, then the owner faces having to get additional funding or redesign, with either option further delaying the project.

In design/build, mistakes made during the design phase of a project are the responsibility of the design/builder, whereas, in design/bid/build, mistakes made during the design become the owner's responsibility, resulting in change orders. Change orders that are due to design errors are often the reason that a project exceeds its budget. The Penn State study reference in our transmittal letter concluded that overall design/build costs to be 5.2 percent less than design/bid/build.

For the Capitol Area East End Complex, the design/builder is completely responsible and at financial risk to complete the project within the agreed price. If the final project cost comes in higher than the contract price, the design/builder absorbs the overrun. If the final project cost is less than the contract sum, then the savings are returned to the state. On a lease revenue bond funded project such as the Capitol Area East End Complex, any cost savings realized become more significant because interest costs are avoided. Assuming that the 5.2 percent savings

from the Penn State study are realized, that would equate to possible savings of approximately \$14,500,000 (5.2 percent of \$291,000,000 construction value of the East End project). These potential savings can then be added back to the project to improve the overall quality. It should be noted that for the Capitol Area East End Complex, the DGS agreed in the legislative authorization to limit the (augmentation) authority provided in Government Code Section 1332.11 to 10 percent rather than the 20 percent specified.

Capitol Area East End Complex – Selection Process

For the Capitol Area East End Complex, we are recommending a design/build selection process based on obtaining the best value for a predetermined price. The process consists of issuing a Request for Qualifications (RFQ) to interested design/build teams. The DGS will then evaluate the submitted RFQs, creating a short list. The short listed teams will then be interviewed. From the interview, the DGS will enter into a contract with three teams. These three teams will be given a Request for Proposal (RFP). The two teams not selected will be paid \$100,000 for their proposals. The RFP process will consist of a series of bid conferences allowing the three RFP teams to ask questions regarding the project's technical and contract requirements. The three RFP design/build teams will submit a technical proposal, which responds to the project requirements. The project selection team will evaluate the proposals and conduct another round of interviews. The selected design/build team will have demonstrated through the RFP process that their team is the most qualified and has proposed a solution that meets or exceeds the project's requirements and will provide a facility with quality enhancements that exceed the criteria set by the DGS.