

Third Annual Status Report to the Legislature

Assembly Bills 405 & 2607

Design Sequencing

I. Purpose

This is the third annual report and reflects activities through the end of March 2003. The report is prepared in accordance with Chapter 378, Statutes of 1999 and Chapter 340, Statutes of 2000, {revising the Streets and Highways Code – Section 217.4(a)}, which states in pertinent part:

Not later than July 1 of each year for which the design-sequencing contracts are underway, the Department shall prepare a status report on its contracting methods, procedures, costs, and delivery schedules. Upon completion of all design-sequencing contracts, notwithstanding Section 7550.5 of the Government Code, the department shall establish a peer review committee to prepare a report for submittal to Legislature that describes and evaluates the outcome of the contracts provided for in this article, stating the positive and negative aspects of using Design-Sequencing as a contracting method.

II. Background

Assembly Bill 405 (Knox), Chapter 378, Statutes of 1999, authorized the California Department of Transportation (Department) to conduct a pilot program to use design-sequencing contracts, for the design and construction of no more than six transportation projects, to be selected by the Director of Transportation.

Under traditional means of contracting for the construction of highway improvement projects, construction of any portion of the project cannot begin until the Department has developed complete plans and specifications for the entire project, placed the contract out for bid, and awarded the contract.

Design-sequencing is a method of contracting that enables the sequencing of design activities to permit each construction phase to commence when design for that phase is complete, instead of requiring design for the entire project to be completed before beginning construction. For this pilot program, the Department is responsible for providing the contract plans. The contract for the entire project is awarded to one contractor with as little as 30 percent complete plans. This process allows for the successful contractor to work with the designers to incorporate innovative designs and construction methods to improve delivery. With design-sequencing, there is a potential for faster performance, cost savings, and earlier delivery of the project to the public.

Design-sequencing should not be confused with the design-build method of contracting. Design-build is a project delivery method that combines the design and construction into one contract where the design firm and the construction contractor are a team, working together to design and construct phases of a project concurrently. The contracting agency identifies the end result parameters and establishes the design criterion.

Assemble Bill 2607 (Knox), Chapter 340, Statutes of 2000, increased the number of transportation projects permissible under the Design-Sequencing Pilot Program from six to 12.

III. Program Objectives & Guidelines

The goal of this pilot program is to test whether the design-sequencing form of contracting is beneficial to California in the administration of its highway improvement program.

In selecting the projects for the pilot program, the Director of the Department has attempted to balance geographical areas among the pilot projects as well as pursue diversity in the types and complexity of projects undertaken.

The Department has developed general procedures with the assistance of the Federal Highway Administration (FHWA). Once a project has been selected as a design-sequencing project, care has been taken to minimize risks associated with the additional flexibility allowed through this legislation. The following is a list of key factors that apply to design-sequenced projects:

- The environmental document must be approved for the entire project prior to awarding any portion of the construction project.
- Right-of-way must be cleared for each segment of the project prior to beginning construction on that segment. There should be no hidden problems or risks associated with any right-of-way needed for the overall project. It is the intent of the Department to conform to the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 (Uniform Act) for right-of-way acquisitions needed for design-sequenced projects. The Uniform Act sets minimum standards of assistance and compensation for relocation advisory and financial assistance, and established basic standards and requirements for appraisal and acquisition to be followed in acquiring real property.
- Changes in the scope of work will not be allowed once the Project Approval and Environmental Document (PA&ED) is approved.
- The plans for the first sequence of the overall project can be put out to bid at 30 percent complete (100 percent contract plans for the first sequence and any subsequent sequences are guaranteed to the contractor on specified dates). All contract items and the corresponding specifications for the overall project are to be included with these initial plans.

- A dispute resolution process will be included in the project special provisions.
- It is understood that delays that result from the Department's inability to provide deliverables to the contractor, for reasons other than natural events, will be the financial responsibility of the State. The FHWA will not participate in any costs or claims that result from such delays.

IV. Project Information

Eleven of the 12 pilot projects have been selected. Eight projects are in the construction phase. Three of these eight projects are opened to the traveling public and are in the process of administratively closing out the contracts. Once the projects are closed out, performance and cost analyses can be completed. The estimated costs for these projects are shown in the table on page 4.

Since the 2002 Design Sequencing Annual Report, two projects have been added to the pilot program, which brings the total number of selected projects to 11. The first project is on Interstate 15, in San Diego County, and will manage congestion and reduce delays within the corridor by increasing freeway capacity and enhancing transportation alternatives. The project proposes four managed lanes within the median over a 32.2-kilometer corridor. The lanes are bi-directional and configured with a movable barrier to handle peak directional traffic, incidents, and special events. The project also includes a Bus Rapid Transit System of routes, which provide connectivity to residential and employment areas. By using Design-Sequencing to construct this project, the Department anticipates accelerating project completion by one year, saving motorists approximately 1-½ hours per week that much sooner.

The second project is located in Sonoma County and proposes to widen Route 101, from Route 12 to Steele Lane, from 4 to 6 lanes for High Occupancy Vehicle (HOV) lanes to alleviate traffic congestion during peak periods. The Department anticipates that utilizing Design-Sequencing to construct this project will accelerate project completion by one year.

The Department has been very strategic in evaluating the existing projects before pursuing additional projects. This allows the Department to take advantage of "lessons learned" from the initial projects. The Department is currently in the process of pursuing an additional project to utilize design sequencing.

It should be noted that of the 11 projects selected for this pilot program, the range of anticipated timesavings varies from one month to one year or more.

Selected Design-Sequenced Pilot Projects

Stage	District-Co-Route-KP	EA	Cost (Million)	Project Description	Project Status	Time Savings
Completed	07-LA-405 59.6/62.8	191004	\$8.0	405/101 Interchange, construct northbound auxiliary lane from Mulholland Dr to Ventura Blvd.	Facility was opened to the traveling public in 01/03. Project was delivered six months ahead of the projected design-sequenced schedule.	11 mos
	03-Sac-80 18.3 03-Sac-51 12.7/13.7	2A8604	\$7.6	Construct westbound lane from I-80 to near the Watt Ave OC on southbound SR-51.	Facility was opened to the traveling public in 09/02, and is currently in the plant establishment phase. Project was delivered seven months ahead of the projected design-sequenced schedule.	19 mos
	04-Ala-680 M0.0/R21.9 04-Scl-680 M7.6/M9.9	253714	\$25.9	Construct interim southbound HOV lane on Rte 680 from Rte 84 in Alameda Co to Rte 237 in Santa Clara Co.	Facility was opened to the traveling public in 12/02.	None
Design	04-Son-101 31.4/34.8	245400	\$57	Construct HOV lanes from Route 12 to Steele Lane.	The Environmental Document is under review from FHWA. PA&ED is targeted for December 2003.	12 mos
	11-SD-905 9.2/19.3 (Phase II)*	093160	\$166	Construct freeway, I-905 to Otay Mesa Border.	This project is currently under environmental review and is targeted for Advertisement in July 2004.	12 mos.
	08-Riv- 215/60/91	334841	\$261.6	Realign and widen I-215, SR-60 and SR-91.	Plans, specifications, and Estimate package was submitted to Office Engineer in 03/03. Target date for Advertisement is 06/03. Targets to begin and end construction are 10/03 and 10/06, respectively.	12 mos min.
	11-SD-15 M30.0/M44.8 Middle Segment (Phase I)	080901	\$54.9	Work involves constructing lanes within the existing median. Installation of a movable barrier to manage congestion and reduce delays.	The Environmental Document is currently under final review from Federal Highway Administration. Target approval date is 03/03. Target date for Advertisement is 04/03.	12 mos
Construction	04-Sol-80 15.4/18.0	259014	\$9.4	Stabilize landslide near Red Top Road.	This project is currently in construction. The target completion date is 03/04.	3 mos
	04-CC-680 KP 25.1/39.1	228564	\$47.5	Add HOV lane in each direction of traffic within the existing median.	Construction began in 03/03, and target completion date is 07/05.	14 mos
	08-SBd-15 67.4/113.6	3555U4	\$108.0	Widen northbound and southbound freeway from Victorville to Barstow.	This project is currently in construction. Target date for completion is 11/03.	2 mos.
	07-LA-210 62.1/64.1	053384	\$6.2	Construct soundwalls in Azusa County.	Construction began in 12/02, and target completion date is 01/04.	1 mos
	11-SD-905 9.2/19.3 (Phase I)*	091804	\$20.9	Construct 905/125 Siempre Viva Interchange.	This project is currently under construction and has a target completion date of 11/04.	20 mos

* Denotes one corridor pilot project.

V. Peer Review Committee

The provisions of the bills will be repealed as of January 1, 2005, which means that the contracts must be awarded prior to this date. The provisions also require that upon completion of all design-sequencing contracts, a Peer Review Committee (hereinafter committee) be established to prepare a report for submittal to Legislature that describes and evaluates the outcome of the contracts; examines the contracting methods used; the procedures for design-sequencing, costs and delivery schedules; and states the positive and negative aspects of using design-sequencing as a contracting method.

Several of the design-sequenced projects are large, complex projects. It is fully expected that their completion dates will fall beyond January 1, 2005. Although all projects have not been completed, initial contact has been made to enlist potential committee members. This will allow the committee sufficient time to determine the criterion for measuring the success of the pilot program. This includes assisting in the finalization of guidelines and procedures to be used in the delivery of design-sequenced projects and to determine the points on which to evaluate the pilot program. The committee will also assist in the development of the annual report to Legislature, and will remain intact until all design-sequenced projects have been completed.

VI. Summary

The Design-Sequencing Pilot Program offers the Department a great opportunity to evaluate the effectiveness of this contracting method as applied to transportation improvement projects. Implementation of the program has begun with the selection of 11 of the 12 pilot projects. The Department is currently pursuing an additional project to include in this pilot program.

As the projects move through the design-sequencing contract process and information on delivery schedules and cost become available, the information will be included in the annual reports to the Legislature.

The evaluation phase of the pilot will begin shortly as the committee is currently being assembled. The committee will be tasked with determining the points on which to evaluate the pilot program, stating the positive and negative aspects of using design-sequencing, and the development of the final guidelines that can be used for future design-sequenced contract applications.

Appendix 1 provides a summary of AB 405, which became law in 1999. Appendix 2 summarizes AB 2607, legislation enacted in 2000.