DEPARTMENT OF TRANSPORTATION

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November 3, 2016

Ms. Diane Boyer-Vine Legislative Counsel State Capitol, Room 3021 Sacramento, CA 95814

Mr. Daniel Alvarez Secretary of the Senate State Capitol, Room 3044 Sacramento, CA 95814

Mr. E. Dotson Wilson Chief Clerk of the Assembly State Capitol, Room 3196 Sacramento, CA 95814

Dear Ms. Boyer-Vine and Messrs. Alvarez and Wilson:

I am pleased to transmit the California Department of Transportation's (Caltrans) "Annual Progress Report - Assembly Bill No. 2498 - Construction Manager/General Contractor Pilot Program," as required by Section 6700 of the Public Contract Code.

Caltrans has made distribution to the Legislature pursuant to section 9795 of the Government Code. This report can be found at http://www.dot.ca.gov/reports-legislature.htm.

Sincerely,

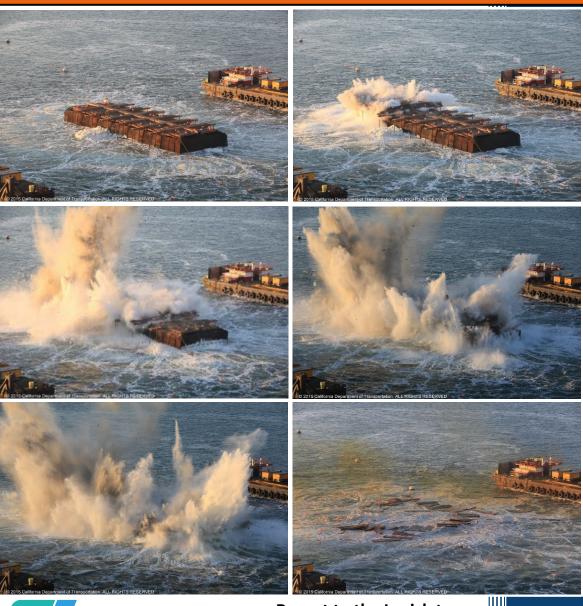
MALCOLM DOUGHERTY

Director

Attachment:

Report to the Legislature – Assembly Bill No. 2498 – Construction Manager/General Contractor Pilot Program

Annual Progress Report Assembly Bill No. 2498 Construction Manager/General Contractor Pilot Program





Report to the Legislature July 1, 2016

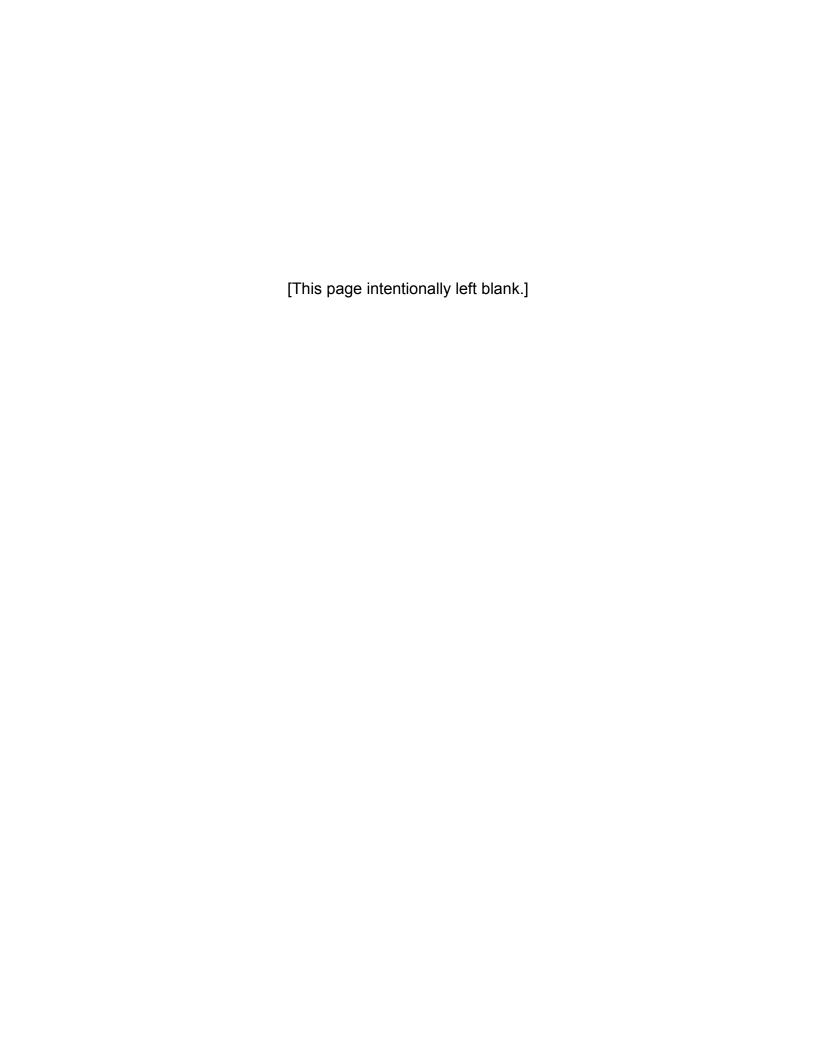


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Executive Summary

Under traditional means of contracting for the construction of highway improvement projects, construction of any portion of the project cannot begin until the implementing agency has developed complete plans and specifications for the entire project, placed the contract out for bid, and awarded the contract. As a result, the contractor who will be constructing the project has no involvement during development of the project.

Construction Manager/General Contractor (CMGC) is a project delivery method that allows the implementing agency to engage a construction manager to provide input during the design process. The construction manager is selected based on qualifications, past experience or a best-value basis. During the design phase, the construction manager provides input regarding scheduling, pricing, phasing and other input that helps the implementing agency design a more constructible project. At an agreed upon point (typically at 90 percent design completion), the implementing agency and the construction manager negotiate a guaranteed maximum price (GMP) for the construction of the project based on the defined scope. If this price is acceptable to both parties, they execute a contract for construction services, and the construction manager becomes the general contractor. If an agreed upon price cannot be negotiated, the construction contract will be let via the typical design-bid-build contracting process.

The CMGC Pilot Program was established in Chapter 6.3 (commencing with Section 6700) of Part 1 of Division 2 of the Public Contract Code, as added by Assembly Bill (AB) 2498 (Chapter 752 of the Statutes of 2012). The CMGC Pilot Program authorizes the use of the CMGC method of procurement by California Department of Transportation (Caltrans) on or after January 1, 2013 and on no more than six projects, at least five of which shall have construction costs greater than \$10 million. The CMGC Pilot Program has no sunset by statute.

This report is the annual progress report on the CMGC Pilot Program and provides the locations, descriptions, cost, status, stage of completion, and estimated time to completion for each project in the program as required.

Cover photographs are from the San Francisco-Oakland Bay Bridge Foundation Removal Project. Pier E-3 was successfully removed through implosion on November 14, 2015. The remaining piers will be removed utilizing the same method over the next three years.

Background

Statutory Reference & Purpose

This report fulfils the requirement of the annual report and reflects activities through June 30, 2016. The report is prepared in accordance with Public Contract Code Section 6700 (see Exhibit A) and Chapter 752 of the Statutes of 2012, which states in pertinent part:

(d) (1) The department shall prepare and submit to the Legislature, no later than July 1 of each year during which any project using the Construction Manager/General Contractor method is ongoing, a report that describes each project and provides relevant data, including, but not limited to, the stage of completion, district, cost, description, status, and estimated time to completion.

Program Background

The CMGC Pilot Program was established in Chapter 6.3 (commencing with Section 6700) of Part 1 of Division 2 of the Public Contract Code, as added by Assembly Bill (AB) 2498 (Chapter 752 of the Statutes of 2012). The CMGC Pilot Program authorizes use of the CMGC method of procurement by California Department of Transportation (Caltrans) on or after January 1, 2013 and on no more than six projects, at least five of which shall have construction costs greater than \$10 ten million.

On at least four of the projects utilizing the CMGC method provided by this chapter, Caltrans shall use Caltrans employees or consultants under contract with Caltrans to perform all project design and engineering services related to design required for CMGC project delivery consistent with Article XXII of the California Constitution. On all six projects, Caltrans shall use Caltrans employees or consultants under contract with Caltrans to perform all construction inspection services required for CMGC project delivery consistent with Article XXII of the California Constitution

Under traditional means of contracting for the construction of highway improvement projects (typically referred to as design-bid-build), construction of any portion of the project cannot begin until the implementing agency has developed complete plans, specifications and estimates (PS&E) for the entire project, placed the contract out for bid, and awarded the contract. Section 10120 of the Public Contract Code states the following:

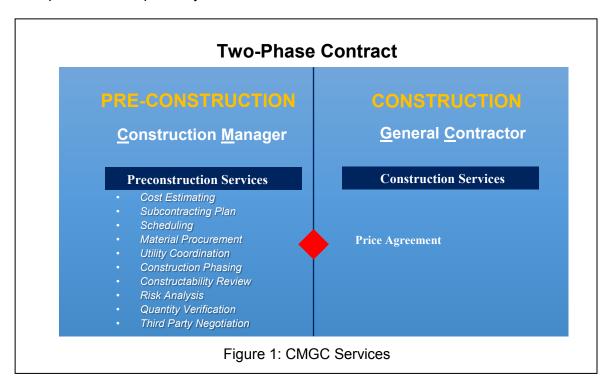
"Before entering into any contract for a project, the department shall prepare full, complete, and accurate plans and specifications and estimates of cost, giving such directions as will enable any competent mechanic or other builder to carry them out."

This requirement puts the full burden of complete and accurate plans and for constructability of the project on the implementing agency. The process does not allow for input by the construction contractor.

CMGC is a project delivery method that allows the implementing agency to engage a contractor (the construction manager) to provide input during the design process. The construction manager is selected on the basis of qualifications, past experience or on a best-value basis. The CMGC process is essentially a two-phase contracting method where the construction manager provides

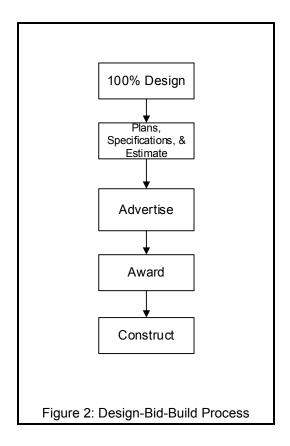
preconstruction services and construction services (Figure 1). During the design phase, the construction manager provides input regarding scheduling, pricing, phasing and other input that helps the implementing agency design a more constructible project.

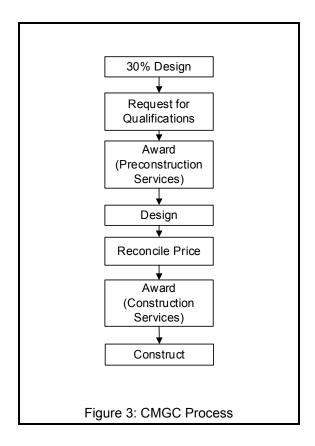
At an agreed upon point (typically at 90 percent design completion), the implementing agency and construction manager negotiate a Guaranteed Maximum Price (GMP) for the construction of the project or a portion of the project based on the defined scope. If this price is acceptable to both parties, they execute a contract for construction services, and the construction manager becomes the general contractor. Under the CMGC process, the contractor accepts much of the risk for accuracy and constructability of the project. Figures 2 and 3 show the design-bid-build and CMGC processes, respectively.



Previous Report

The first progress report on the CMGC Pilot Program was submitted to the Legislature on July 1, 2015. Since the last report, one construction contract has been completed (SFOBB Foundation Removal - package 1) and two new construction contracts have been awarded (SFOBB Foundation Removal - final package and Fresno 99 Realignment – final package).





Program Status/Program Accomplishments

The goal of the CMGC Pilot Program is described in Section 6700 of the Public Contract Code:

"It is the intent of the Legislature in enacting this chapter to establish a pilot program to test the utilization of a Construction Manager/General Contractor method as a cost-effective option for constructing transportation projects, including the potential for partnering with local entities to deliver projects on the state highway system."

"The Construction Manager/General Contractor method provided by this chapter may be used by the Department, but is not limited to, when it is anticipated that it will reduce project costs or expedite project completion in a manner that is not achievable through the design-bid-build method."

A call for project nominations was sent to all Caltrans districts on April 15, 2013. Eleven projects were nominated for inclusion in the Pilot Program. A Selection Committee composed of the Deputy Director of Project Delivery, the Project Delivery Division Chiefs and the Programming Division Chief met on June 17, 2013, and selected the six projects shown in Table 1.

The selection was based on project complexity, size, location, scope, funding, and design stage of completion.

Caltrans is required to report on the following each year during which any project using CMGC method is underway:

- (1) District
- (2) Description
- (3) Cost
- (4) Status
- (5) Stage of completion; and
- (6) Estimated time to completion.

Table 1 lists the six selected projects and their current status. Items (1) through (6) are included in the table.

Each of the project teams is tracking potential innovations and cost savings identified by the contractor during the design phase. Now that one of the initial construction contracts is complete (SFOBB Foundation Removal – Package 1), Caltrans is able to quantify some of the benefits of the CMGC delivery method on that project. Caltrans estimates that cost savings of about \$15 million were achieved due to input from the contractor during the design process on this first contract. In addition, the contract was completed on time and under the construction budget allocation on a project utilizing a new method of demolition on which Caltrans had no prior experience.

The Fresno 99 Realignment project experienced a cost increase of about \$35 million. The cost increase was due primarily to scope changes during design and unrelated to the CMGC delivery method.

Challenges/Conclusions

A challenge faced when implementing a new delivery method is the need to develop new processes and contract documents. Caltrans developed its CMGC processes and contract documents based on best practices from other state departments of transportation with mature CMGC programs. Caltrans also solicited industry comments on the contract documents and processes. After each procurement, Caltrans provides debriefings for each proposing team. This provides an opportunity to share with each team the strengths and weaknesses of their submittals as well as providing an opportunity for Caltrans to obtain feedback on the selection process. To date, comments from industry have been extremely positive and supportive of the CMGC Pilot Program.

Another challenge identified to date is the reconciliation of differences in estimates between Caltrans using historical bid-based data and the contractor using a production-based approach in their respective estimates. Consequently, Caltrans has hired an Independent Cost Estimator (ICE) to assist in the reconciliation process of the non-binding "Opinion of Probable Construction Costs" submitted at different design stages of the project and of the GMP. Based on our experience to date, Caltrans considers the use of an ICE as a best management practice for the CMGC process.

Caltrans will continue to identify challenges and best practices as the projects progress towards completion.

TABLE 1 CONSTRUCTION MANAGER/GENERAL CONTRACTOR PILOT PROGRAM SELECTED PROJECTS

(as of 6/30/16)

Project (1)	Description (2)	Cost (\$ millions) (3)	Status (4)	Stage of Completion (5)	Estimated Date of Completion (6)
04-013531 PM 0.5 SF/Ala 80 SFOBB Foundation Removal	Remove existing marine foundation	\$130	Awarded to Kiewit/Manson A Joint Venture	One construction package completed. The second and final construction package awarded and under construction.	December 2018
06-2HT10 PM 23.5/26.6 Fre 99 Realignment	Realign Route 99 to accommodate High Speed Rail	\$111	Awarded to Granite Construction Company	One construction package awarded and under construction. The second and final construction package awarded.	March 2018
08-0J070 PM 0.6/2.0 SBd 215 Reconstruct Interchange	Reconstruct Barton Road Interchange	\$79	Awarded to Myers-Rados, A Joint Venture	Preconstruction Phase	Mid 2018
08-34770 Kern 143.5/143.0 SBD 0.0/12.9 SBd 58 Upgrade	Convert 2-lane conventional highway to 4-lane expressway	\$158	Awarded to Kiewit Infrastructure West Co.	Preconstruction Phase	Mid 2020
10-0P920 PM 42.0/42.7 MPA 140 Ferguson Slide Restoration	Construct 2-lane highway on new alignment	\$52	Awarded to Myers and Sons/RL Wadsworth Joint Venture	Preconstruction Phase. One construction package awarded and under construction.	Fall 2018
11-2T170, 11-2T171, 11-2T172 I-5 North Coast Corridor (27 miles)	Improve I-5, Rail, and Transit in the North Coast Corridor	\$606	Awarded to Flatiron-Skanska- Stacy and Whitbeck (FSSW) a Joint Venture	Preconstruction Phase	Summer 2020

Appendix A. Statutory Reporting Reference

Assembly Bill No. 2498

CHAPTER 752

An act to add Chapter 6.3 (commencing with Section 6700) to Part 1 of Division 2 of the Public Contract Code, relating to public contracts.

[Approved by Governor September 29, 2012. Filed with Secretary of State September 29, 2012.]

LEGISLATIVE COUNSEL'S DIGEST

AB 2498, Gordon. Department of Transportation: Construction Manager/General Contractor project method.

Existing law sets forth the requirements for the solicitation and evaluation of bids and the awarding of contracts by state agencies for the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement.

This bill would authorize the Department of Transportation to engage in a Construction Manager/General Contractor project delivery method, as specified, for projects for the construction of a highway, bridge, or tunnel.

This bill would require the department to submit a report, as specified, no later than July 1 of each year during which any project using the Construction Manager/General Contractor method is underway and no later than July 1 of the year after any project using the Construction Manager/General Contractor method has been completed.

This bill would require the Department of Transportation, on or after January 1, 2013, to use department employees or consultants under contract with the department to perform project design and engineering services, project development services, and construction inspection services, as provided.

This bill would require specified information provided to the department to be verified under oath, thus imposing a state-mandated local program by expanding the scope of an existing crime.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. Chapter 6.3 (commencing with Section 6700) is added to Part 1 of Division 2 of the Public Contract Code, to read:

CHAPTER 6.3. CONSTRUCTION MANAGER/GENERAL CONTRACTOR

AUTHORITY: DEPARTMENT OF TRANSPORTATION

- 6700. (a) This chapter provides for an alternative procurement procedure for certain transportation projects performed by the Department of Transportation.
- (b) (1) It is the intent of the Legislature in enacting this chapter to establish a pilot program to test the utilization of a Construction Manager/General Contractor method as a cost-effective option for constructing transportation projects, including the potential for partnering with local entities to deliver projects on the state highway system.
- (2) The Construction Manager/General Contractor method allows the department to engage a construction manager during the design process to provide input on the design. During the design phase, the construction manager provides advice including, but not limited to, scheduling, pricing, and phasing to assist the department to design a more constructible project.
- (c) The Legislature finds and declares that utilizing a Construction Manager/General Contractor method requires a clear understanding of the roles and responsibilities of each participant in the process. The Legislature also finds and declares that cost-effective benefits are achieved by shifting the liability and risk for cost containment and project schedule to the construction manager and by permitting the coherent phasing of projects into discrete contract increments.
- 6701. (a) The Construction Manager/General Contractor method provided by this chapter may be used by the department, but is not limited to, when it is anticipated that it will reduce project costs or expedite project completion in a manner that is not achievable through the design-bid-build method. Notwithstanding any other law, for projects utilizing the Construction Manager/General Contractor method provided by this chapter, the department shall advertise, award, and administer the Construction Manager/General Contractor contract. The department shall not delegate the contracting authority.
- (b) The department may use the Construction Manager/General Contractor method on no more than six projects, at least five of which shall have construction costs greater than ten million dollars (\$10,000,000).
- (c) On at least four of the projects utilizing the Construction Manager/General Contractor method provided by this chapter, the department shall use department employees or consultants under contract with the department to perform all project design and engineering services related to design required for Construction Manager/General Contractor project delivery consistent with Article XXII of the California Constitution. On all six projects, the department shall use department employees or consultants under contract with the department to perform all construction inspection services required for Construction Manager/General Contractor project delivery consistent with Article XXII of the California Constitution. Department resources, including personnel requirements, necessary to perform all services described in this subdivision shall be

included in the department's capital outlay support program for workload purposes in the annual Budget Act.

- (d) (1) The department shall prepare and submit to the Legislature, no later than July 1 of each year during which any project using the Construction Manager/General Contractor method is ongoing, a report that describes each project and provides relevant data, including, but not limited to, the stage of completion, district, cost, description, status, and estimated time to completion.
- (2) The department shall prepare and submit to the Legislature, no later than July 1 of the year after any project using the Construction Manager/General Contractor method has been completed, a report that includes, in addition to the data in paragraph (1), all of the following:
- (A) Data on initial cost estimates, actual cost upon completion, and the reasons for any difference.
- (B) Estimated time for completion, actual time of completion, and the reasons for any difference.
- (C) The number and dollar value of any change orders for all projects completed using the Construction Manager/General Contractor method.
- (e) (1) A report to be submitted pursuant to subdivision (d) shall be submitted in compliance with Section 9795 of the Government Code.
- (2) Notwithstanding Section 10231.5 of the Government Code, the requirement for submitting a report imposed under subdivision (d) is inoperative on July 1 of the year following the submission of the final report upon completion of the fourth project of the department that uses the Construction Manager/General Contractor method.
- 6702. As used in this chapter, the following terms have the following meanings:
- (a) "Construction manager" means a partnership, corporation, or other legal entity that is able to provide appropriately licensed contracting and engineering services as needed pursuant to a Construction Manager/General Contractor method contract.
- (b) "Construction Manager/General Contractor method" means a project delivery method in which a construction manager is procured to provide preconstruction services during the design phase of the project and construction services during the construction phase of the project. The contract for construction services may be entered into at the same time as the contract for preconstruction services, or at a later time. The execution of the design and the construction of the project may be in sequential phases or concurrent phases.
- (c) "Department" means the Department of Transportation as established under Part 5 (commencing with Section 14000) of Division 3 of the Government Code.
- (d) "Preconstruction services" means advice during the design phase including, but not limited to, scheduling, pricing, and phasing to assist the department to design a more constructible project.
- (e) "Project" means the construction of a highway, bridge, or tunnel.
- 6703. Construction Manager/General Contractor method projects shall progress as follows:
- (a) (1) The department shall establish a procedure for the evaluation and selection of a construction manager through a request for qualifications (RFQ). The RFQ shall include, but not be limited to, the following:

- (A) If the entity is a partnership, limited partnership, or other association, a list of all of the partners, general partners, or association members known at the time of the bid submission who will participate in the Construction Manager/General Contractor method contract, including, but not limited to, subcontractors.
- (B) Evidence that the members of the entity have completed, or demonstrated the experience, competency, capability, and capacity to complete projects of similar size, scope, or complexity, and that proposed key personnel have sufficient experience and training to competently manage and complete the construction of the project, as well as a financial statement that assures the department that the entity has the capacity to complete the project, construction expertise, and an acceptable safety record.
- (C) The licenses, registration, and credentials required to construct the project, including information on the revocation or suspension of any license, registration, or credential.
- (D) Evidence that establishes that the entity has the capacity to obtain all required payment and performance bonding, liability insurance, and errors and omissions insurance.
- (E) Any prior serious or willful violation of the California Occupational Safety and Health Act of 1973, contained in Part 1 (commencing with Section 6300) of Division 5 of the Labor Code, or the federal Occupational Safety and Health Act of 1970 (Public Law 91-596), settled against any member of the entity, and information concerning workers' compensation experience history and worker safety program.
- (F) Information concerning any debarment, disqualification, or removal from a federal, state, or local government public works project. Any instance in which an entity, its owners, officers, or managing employees submitted a bid on a public works project and were found to be nonresponsive, or were found by an awarding body not to be a responsible bidder.
- (G) Any instance in which the entity, or its owners, officers, or managing employees, defaulted on a construction contract.
- (H) Any violations of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code), excluding alleged violations of federal or state law including the payment of wages, benefits, apprenticeship requirements, or personal income tax withholding, or of the Federal Insurance Contributions Act (26 U.S.C. Sec. 3101, et seq.) withholding requirements settled against any member of the entity.
- (I) Information concerning the bankruptcy or receivership of any member of the entity, including information concerning any work completed by a surety.
- (J) Information concerning all settled adverse claims, disputes, or lawsuits between the owner of a public works project and any member of the entity during the five years preceding submission of a bid pursuant to this section, in which the claim, settlement, or judgment exceeds fifty thousand dollars (\$50,000). Information shall also be provided concerning any work completed by a surety during this period.
- (K) In the case of a partnership or other association that is not a legal entity, a copy of the agreement creating the partnership or association and specifying that all partners or association members agree to be fully liable for the performance under the contract.

- (L) For the purposes of this paragraph, a construction manager's safety record shall be deemed acceptable if his or her experience modification rate for the most recent three-year period is an average of 1.00 or less, and his or her average total recordable injury/illness rate and average lost work rate for the most recent three-year period does not exceed the applicable statistical standards for its business category or if he or she is a party to an alternative dispute resolution system as provided for in Section 3201.5 of the Labor Code.
- (2) The information required pursuant to this subdivision shall be verified under oath by the entity and its members in the manner in which civil pleadings in civil actions are verified. Information that is not a public record pursuant to the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) shall not be open to public inspection.
- (b) For each RFQ, the department shall generate a final list of qualified persons or firms that participated in the RFQ prior to entering into negotiations on the contract or contracts to which the RFQ applies.
- (c) (1) For each contract included in the RFQ, the department shall enter into separate negotiations for the contract with the highest qualified person or firm on the final list for that contract. However, if the RFQ is for multiple contracts and specifies that all of the multiple contracts will be awarded to a single construction manager, there may be a single negotiation for all of the multiple contracts. The negotiations shall include consideration of compensation and other contract terms that the department determines to be fair and reasonable to the department. In making this decision, the department shall take into account the estimated value, the scope, the complexity, and the nature of the professional services or construction services to be rendered. If the department is not able to negotiate a satisfactory contract with the highest qualified person or firm on the final list, regarding compensation and on other contract terms the department determines to be fair and reasonable, the department shall formally terminate negotiations with that person or firm. The department may undertake negotiations with the next most qualified person or firm on the final list in sequence until an agreement is reached or a determination is made to reject all persons or firms on the final list.
- (2) If a contract for construction services is entered into pursuant to this chapter and includes preconstruction services by the construction manager, the department shall enter into a written contract with the construction manager for preconstruction services under which contract the department shall pay the construction manager a fee for preconstruction services in an amount agreed upon by the department and the construction manager. The preconstruction services contract may include fees for services to be performed during the contract period provided, however, the department shall not request or obtain a fixed price or a guaranteed maximum price for the construction contract from the construction manager or enter into a construction contract with the construction manager until after the department has entered into a services contract. A preconstruction services contract shall provide for the subsequent negotiation for construction of all or any discreet phase or phases of the project.
- (3) A contract for construction services shall be awarded after the plans have been sufficiently developed and either a fixed price or a guaranteed maximum price has been successfully negotiated. In the event that a fixed price or a guaranteed maximum price is not negotiated, the department shall not award the contract for construction services.
- (4) The department is not required to award the construction services contract.

- (5) Construction shall not commence on any phase, package, or element until the department and construction manager agree in writing on either a fixed price that the department will pay for the construction to be commenced or a guaranteed maximum price for the construction to be commenced and construction schedule for the project. The construction manager shall perform not less than 30 percent of the work covered by the fixed price or guaranteed maximum price agreement reached. Work that is not performed directly by the construction manager shall be bid to subcontractors pursuant to Section 6705.
- 6704. (a) Any construction manager that is selected to construct a project pursuant to this chapter shall possess or obtain sufficient bonding to cover the contract amount for construction services and risk and liability insurance as the department may require.
- (b) Any payment or performance bond written for the purposes of this chapter shall be written using a bond form developed by the department. 6705. All subcontractors bidding on contracts pursuant to this chapter shall be afforded the protections contained in Chapter 4 (commencing with Section 4100) of Part 1. The construction manager shall do all of the following:
- (a) Provide public notice of the availability of work to be subcontracted in accordance with the publication requirements applicable to the competitive bidding process of the department.
- (b) Provide a fixed date and time on which the subcontracted work will be awarded in accordance with the procedure established pursuant to this chapter
- (c) Comply with any subcontracting procedures adopted by the department that were included in the department's RFQ. If the department has adopted procedures to prequalify public works contractors, the construction manager may use the procedures to prequalify subcontractors.
- 6706. The department may retain the services of a design professional or construction project manager, or both, throughout the course of the project in order to ensure compliance with this chapter.
- 6707. Contracts awarded pursuant to this chapter shall be valid until the project is completed.
- 6708. Nothing in this chapter is intended to affect, expand, alter, or limit any rights or remedies otherwise available at law.
- SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.