

## Department of General Services

The Division of the State Architect Lacks Enforcement Authority and Has Weak Oversight Procedures, Increasing the Risk That School Construction Projects May Be Unsafe

December 2011 Report 2011-116.1



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The Governor of California  
President pro Tempore of the Senate  
Speaker of the Assembly  
State Capitol  
Sacramento, California 95814

Dear Governor and Legislative Leaders:

As requested by the Joint Legislative Audit Committee, the California State Auditor presents this audit report concerning the Department of General Services, Division of the State Architect's (division) oversight and certification of school construction projects.

This report concludes that the division is unable to certify that a large number of completed school construction projects meet requirements in the Field Act, a law designed to protect the safety of pupils, teachers, and the public. The division reports that over 16,000 projects remain uncertified. Elements of the act hamper the division's ability to enforce the certification requirements. For example, the act allows school districts to occupy uncertified projects and does not give the division the express authority to penalize school districts that do not comply with certification requirements. Further, the division infrequently uses its authority to stop construction of projects when it determines there is a risk to public safety. In addition, the division lacks a clear system for classifying uncertified projects, increasing the risk that it will miscommunicate the true risks associated with uncertified projects and that efforts to strategically follow up on these projects will be impeded.

We also found that the division's oversight of project construction is not effective. The division lacks a process for planning oversight it will perform, and in some cases could not demonstrate that it provided adequate field oversight. We found examples of projects with an estimated cost of up to \$2.2 million that had no evidence of a visit by the division's field staff. Further, the division relies on project inspectors to ensure that projects are constructed according to approved plans, but these inspectors are employees or contractors of the school districts, which increases the risk of them being improperly influenced and the division has not implemented robust strategies to mitigate this risk. Additionally, the division is not always able to approve project inspectors for work before the beginning of construction as the Field Act requires. Also, the division does not complete field oversight of school construction in the areas of fire and life safety and accessibility, raising the risk that safety issues in these areas will go uncorrected. Finally, the division lacks performance measures that could help it to improve its field oversight and certification efforts.

Respectfully submitted,



ELAINE M. HOWLE, CPA  
State Auditor

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# **Department of General Services**

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## Summary

### Results in Brief

As mandated by a state law known as the Field Act, the Division of the State Architect (division), part of the Department of General Services (department), supervises design and construction for K-12 schools and community colleges. The Field Act requires the department—which delegates its responsibilities to the division—to certify school construction projects when they comply with requirements in the act and with the building standards in Title 24 of the California Code of Regulations (building standards). However, a significant number of the State's school construction projects remain uncertified. Twenty-three percent of the projects that the division closed in the last three fiscal years remain uncertified. Statewide, the division closed more than 2,000 projects out of nearly 8,800 without certifying them during the last three fiscal years. As of December 2010 the division estimated there were approximately 16,400 uncertified projects in the State.

The number of uncertified projects may be in part due to the Field Act, which hampers the division's ability to ensure that projects comply with certification requirements. The act expressly allows school districts<sup>1</sup> to occupy projects regardless of whether the division has certified them, and it does not grant the division sufficient authority to penalize school districts for noncompliance. The act does grant the division certain limited tools it could use to encourage districts to pursue certification; however, the division has used these tools infrequently and inconsistently. For example, the division has inconsistently used its authority to order districts to stop work on projects in situations where the division has identified a potential threat to public safety.

In addition, the division has failed to effectively document its determinations about the risk level of uncertified projects or to use these determinations to guide its approach to following up on those projects. Without well-documented decisions and a meaningful classification system, the division risks miscommunicating the true risks associated with uncertified projects. Moreover, by not using its classification system to drive its follow-up efforts regarding projects with outstanding issues, the division may miss an opportunity to encourage districts to address serious safety concerns. In recent years, the division has made infrequent attempts to complete such

<sup>1</sup> The Field Act, building standards, and the division's interpretation of regulations use terms including *school district*, *school board*, and *governing board of a school district* to refer to local entities with responsibilities under the act. In our report, we use the term *school district(s)* or *district(s)*.

### Audit Highlights . . .

*Our review of the Department of General Services' implementation of the Field Act (act), revealed the following about the Division of the State Architect (division):*

- » *While the division must certify school construction projects when they comply with the act, as of December 2010 approximately 16,400 projects statewide remained uncertified.*
- » *Statewide, 23 percent of projects closed in the last three fiscal years remain uncertified.*
- » *The division inconsistently used its authority to order districts to stop work on projects after identifying a potential threat to public safety.*
- » *The division did not effectively document its determinations about the risk level of uncertified projects or to use these determinations to guide its approach to following up on those projects.*
- » *The division's level of oversight of school construction processes is not comprehensive—of 24 projects we reviewed, three did not have evidence of any site visits by its field engineers and eight had evidence of only one site visit.*
- » *Although districts must submit inspectors for approval prior to construction, for 22 of 34 projects we reviewed, the division did not approve the inspectors until after construction began.*
- » *The division does not provide the same level of construction oversight for fire and life safety and accessibility as it does for structural safety even though it reviews plans for all three disciplines.*

follow-up with school districts regarding uncertified projects. Since 2008 it has only performed such follow-up three times and can only speak to the success of one of those efforts.

Further, the division has not provided an effective, comprehensive level of oversight of school construction processes. Specifically, although the Field Act directs the division to visit sites as it deems necessary for enforcement of the act and for the safety of pupils, teachers, and the public, the division does not have a process for planning the oversight it will perform for projects of similar size and complexity. It also cannot demonstrate that it has provided adequate or consistent field oversight. For example, we found no evidence on file of site visits by its field engineers for three of 24 projects we reviewed; these projects had estimated costs of \$270,000, \$1.8 million, and \$2.2 million. Additionally, we found evidence of only one site visit for each of eight other projects, three of which had estimated values over \$500,000. This does not appear to be an adequate level of oversight given that, in a recent field pilot program, the division established criteria of a minimum of one visit by field engineers to all sites and monthly site visits for projects with construction activity lasting more than three months.

Because the division's field engineers spend a limited amount of time at each site, the division relies heavily on project inspectors—who are employees or contractors of the school districts—to ensure that districts build school projects according to approved plans. However, we noted several areas of concern related to the division's oversight of inspectors. Specifically, the relationship between inspectors and the entities involved in construction creates an inherent risk that construction may not comply with approved plans. Several of the division's regional managers indicated to us that school districts and contract managers sometimes interfere with the work of project inspectors. Nonetheless, the division has not implemented robust mitigation strategies. Moreover, in violation of regulations, school districts often start construction on projects before the division formally approves project inspectors. In our review of 34 projects, we found that the division had not approved the inspectors for 22 projects until a month after the districts had begun construction. Further, the division has sometimes excused inspectors from required trainings, has not always ensured that all inspectors have passed the current version of the inspector examination, and recently ceased its formal evaluation of inspector performance.

We noted additional problems with the division's construction oversight process as well. Although the division reviews plans for school construction projects in three disciplines—structural safety, fire and life safety, and accessibility—it does not provide a similar level of construction oversight in the latter two categories as it does for structural safety. Without conducting regular oversight

of all aspects of the construction projects, the division risks that significant issues related to public safety may not receive the attention they deserve. Further, the division lacks performance measures for the construction and close-out phases of projects. Such standards could help the division identify areas needing improvement and then evaluate its success in making sure these improvements are completed over time. According to the manager of the division's Performance Metrics Section, the division has not developed performance measures for these phases because it lacks data. However, we identified several statistics that the division could use as performance measures that we believe would enable it to better assess the adequacy of its oversight.

### **Recommendations**

To ensure public safety and to provide public assurance that school districts construct projects in accordance with approved plans, the department in conjunction with the division should pursue legislative changes to the Field Act that would prohibit occupancy in cases in which the division has identified significant safety concerns. Further, the Legislature should consider implementing additional penalties for school districts that do not provide all required documents.

To better use the enforcement tools at its disposal, the division should continue and expand its use of both orders to comply and stop work orders.

To ensure that it clearly justifies the reasons a project's noted issues merit a particular classification, the division should either modify its current policies regarding classifying types of uncertified projects or develop new policies, including requiring documentation of the rationale behind project-specific classifications. It should use its classifications to prioritize its efforts to follow up on uncertified projects based on risk and to better inform the public regarding the reasons it has not certified projects.

To reduce the number of uncertified projects, the division should implement initiatives to follow up with school districts on uncertified projects.

To ensure that it is providing adequate oversight of school construction projects, the division should develop and document an overall strategy that establishes specific expectations for conducting site visits and monitoring construction. The division should then record and compare its actual visits and monitoring efforts to its planned actions. The division should document explanations for any deviations from its plans.

To mitigate risks arising from the relationship among inspectors, school districts, and project managers, the division should develop formal procedures and explicit directions for field engineers to ensure that they establish a presence on project sites and provide adequate oversight of inspectors during construction.

To ensure that it approves inspectors before the start of project construction, the division should streamline its approval process by reviewing inspectors' workloads and past experience using the data it already maintains.

To ensure that certified inspectors are knowledgeable about current code requirements, the division should not excuse inspectors from required trainings and should improve its process for identifying expired certification exam scores.

To ensure that it formally monitors inspectors' performances, the division should reestablish a process for evaluating inspectors that provides consistent documentation of performance. The division should make this information accessible to appropriate staff.

To address areas in which its staff do not currently have expertise, the division should finalize the results of its field pilot program related to field oversight of accessibility-related and fire and life safety-related issues by qualified individuals.

To better manage its construction oversight and close-out functions, the division should develop performance measures to assess those functions and it should periodically report the results to the public on its Web site.

### **Agency Comments**

The department agreed with our recommendations and outlined steps the division will take to implement them.

# Introduction

## Background

On March 10, 1933, a magnitude 6.3 earthquake hit Long Beach, California. According to the Department of General Services (department), that earthquake destroyed 70 schools and inflicted major structural damage on another 120. The earthquake struck when the buildings were unoccupied; otherwise, according to the department, hundreds of children might have died. On April 10, 1933—only one month after the earthquake—the Field Act became law, to protect the safety of pupils, teachers, and the public. The act requires that the department supervise the design and construction of any school building or the reconstruction or alteration of any school building to ensure that plans and specifications comply with the act and the building standards published in Title 24 of the California Code of Regulations (building standards). Although the act exempts certain types of facilities from some or all of its requirements, it generally mandates that the department both approve design plans and supervise construction to ensure that projects comply with approved plans for the protection of life and property.<sup>2</sup>

Although the Field Act directs the department to supervise the design and construction of school buildings, the department delegated this authority to the Division of the State Architect (division). The division consists of a headquarters in Sacramento and four regional offices located in Oakland, Sacramento, Los Angeles, and San Diego. The headquarters includes the office of the state architect, a branch dedicated to codes and standards, and sections or units dedicated to human resources, inspector certification, fiscal services, contracts, training, performance metrics, and information technology. The state architect is appointed by the governor and heads the division; since August 2010, an acting state architect has held this position. A principal structural engineer, known as a regional manager, leads each regional office and plans, organizes, and directs the plan review and field oversight activities for that office. The regional offices serve the counties assigned to them, as shown in Figure 1 on the following page. For fiscal year 2011–12, the division has 345 authorized positions and a budget of \$53.8 million. The division receives its revenue from fees it charges for its services.

<sup>2</sup> Charter schools may, but are not required to, comply with the Field Act. Private schools are exempt from its provisions.

**Figure 1**  
Territories of the Division of the State Architect's Regional Offices



Source: Division of the State Architect's Web site.

**The Division’s Approval of Projects and Oversight of Construction**

The division reviews and approves plans for school construction projects, which vary widely in size and scope. For instance, a project may include the installation of a scoreboard or the construction of a new campus. Table 1 identifies the estimated cost of projects active between fiscal years 2008–09 and 2010–11. The Field Act mandates that an appropriately licensed architect or structural engineer (design professional) prepare the drawings and specifications. The design professional is responsible for coordinating all consultants, observing construction, interpreting drawings and specifications, and preparing all changes to the design plans.

**Table 1**  
**Estimated Cost of Projects Active in**  
**Fiscal Years 2008–09 Through 2010–11**

ESTIMATED COST OF PROJECTS	NUMBER OF PROJECTS	TOTAL ESTIMATED COST OF PROJECTS
< \$100,000	4,271	\$199,581,061
100,000–500,000	5,289	1,325,874,316
500,001–1,000,000	2,122	1,589,688,028
1,000,001–5,000,000	4,061	9,589,530,006
5,000,001–10,000,000	1,001	7,235,082,215
> 10,000,000	1,069	24,559,523,834
<b>Totals</b>	<b>17,813</b>	<b>\$44,499,279,460</b>

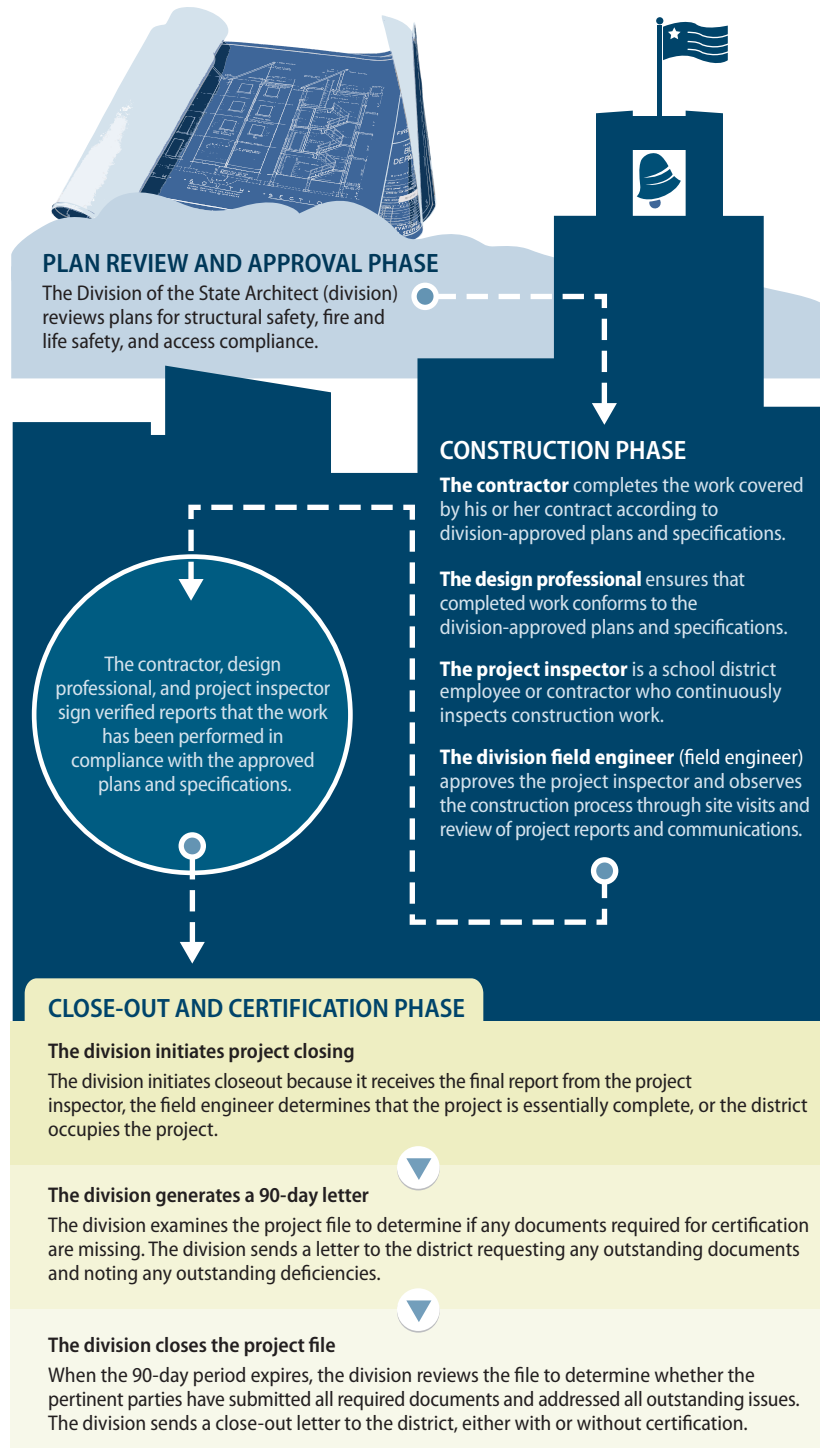
Source: Bureau of State Audits’ analysis of data obtained from the Division of the State Architect’s Tracker database.

The division’s plan review and approval process occurs before any construction takes place. To initiate this process, school districts<sup>3</sup> must submit an application to the division, along with the plans and specifications for the project and required fees. Once the division verifies that the application packet is complete, it schedules the project for plan review. Three experts review the plans in three disciplines—structural, fire and life safety, and access. Once they have completed their reviews and approved the plans, the division issues a letter to inform the school district that its plans meet pertinent code requirements. According to the Field Act, school districts cannot contract for construction until the division has approved their plans and specifications. Figure 2 on the following page depicts the division’s process for ensuring that projects comply with legal requirements.

<sup>3</sup> The Field Act, building standards, and the division’s interpretation of regulations use terms including *school district*, *school board*, and *governing board of a school district* to refer to local entities with responsibilities under the act. In our report, we use the term *school district(s)* or *district(s)*.



**Figure 2**  
Division of the State Architect’s Process for Ensuring That Projects Comply With Legal Requirements



Sources: Title 24 of the California Code of Regulations, and the division’s *Project Certification Guide and Implementation of Field Supervision Procedures*.

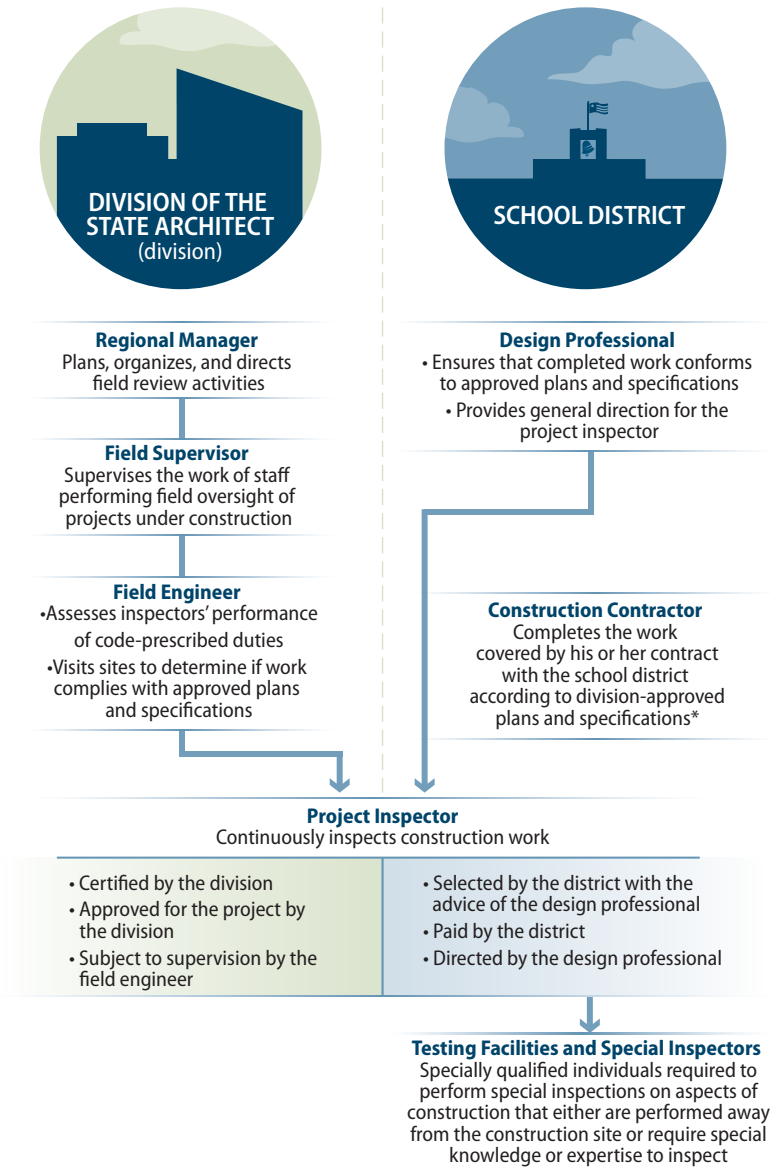


As shown in Figure 3 on the following page, the two parties most responsible for directly overseeing the construction process for the division are field engineers and project inspectors. The division's field engineers are state employees who are based in one of the division's four regional offices. Field engineers are licensed structural engineers with at least five years of structural engineering experience. They review and approve any changes to plans that school districts make during construction. They also occasionally visit construction sites to ensure that the districts perform work according to building code requirements and to supervise project inspectors. Field engineers record the results of these visits in field trip notes, copies of which the division distributes to inspectors and field team supervisors while filing the originals in the field engineers' project records. The division assigns field engineers to multiple projects—for example, one field engineer in Sacramento was responsible for more than 75 active projects—and it consequently does not expect them to maintain a constant presence at each construction site.

In contrast, school districts directly employ or contract with the project inspectors, who are also responsible to the division for ensuring that the school districts comply with approved plans and specifications. Building standards require that inspectors successfully complete a division-administered certification exam that tests their understanding of applicable codes and their knowledge about acceptable construction practices, plan reading, and techniques of construction and inspection. Inspectors may renew their division certifications—which are valid for four years—by attending training classes and passing a recertification exam. The division approves inspectors for work on particular projects as requested by school districts. Its approval process considers, among other factors, an inspector's certification status, work history, performance on prior construction projects, and workload in the context of the time commitment needed for the proposed project.

Like field engineers, inspectors complete tasks aimed at ensuring that construction matches the approved plans; however, the Field Act requires inspectors to perform continuous inspection of construction for projects on which the division has approved them to work. State regulations require inspectors to document the progress of construction, including any problems or noncomplying conditions, by submitting semimonthly reports to the division. Additionally, inspectors are responsible for issuing written notifications if school districts do not correct any deviations in construction immediately after the inspector brings those deviations to the attention of the project contractors.

**Figure 3**  
Key Players in Construction Oversight



Sources: State law, Title 24 of the California Code of Regulations, and the division's *Project Certification Guide, Implementation of Field Supervision Procedures, duty statements, and Interpretation of Regulations Manual*.

\* According to the acting state architect, many school districts employ construction managers whose purpose is to ensure the project finishes on time and within budget.

**The Division's Certification of School Projects**

The Field Act requires the division to certify that construction projects are built in compliance with the law. When construction on a project ends, the division notifies the school district about

any outstanding issues that prevent the division from certifying the project as compliant with the act and building standards. The division sends a letter to the school district requesting that it submit all outstanding documents within a 90-day period. The documents in question might include the final, verified reports that design professionals, project inspectors, and other key individuals must submit. These reports are legally required statements, made and signed under the penalty of perjury, that verify that the work complies with approved plans and specifications. Additionally, the division's letter details any issues with project construction that inspectors or field engineers have identified that the district must address and resolve.

When the 90-day period has expired, the division examines the project file to determine whether the pertinent parties have submitted any missing documents and whether the district has appropriately addressed any outstanding issues. Upon satisfactory completion of construction and receipt of all required documents, the division will certify a project. The division closes the project without certification if, after the 90-day period, it has not received all required documents or if the district has failed to correct reported deviations in construction and to resolve all safety issues. If a school district cannot obtain all of the required documents, the Field Act permits the district to request that the division review all of the project records and make such examinations as it deems necessary to enable it to certify the project. Further, school districts may request that the division reopen uncertified projects for examination and certification at any time. However, as we discuss in Chapter 1, the division does not have the authority to stop school districts from occupying or using projects even if the projects are uncertified.

### **Scope and Methodology**

The Joint Legislative Audit Committee (audit committee) directed the Bureau of State Audits (bureau) to review the division's implementation of the Field Act, which we describe in the Introduction. The audit committee's request divided the audit into two phases: Phase one focuses on the division's construction oversight and project close-out functions, and phase two focuses on its plan review functions. This report covers phase one of the audit request. Table 2 on the following page outlines the audit committee's objectives for phase one and our methodology for addressing each objective.

**Table 2**  
**Methods of Addressing Audit Objectives**

AUDIT OBJECTIVE	METHODOLOGY
Review and evaluate the laws, rules, and regulations significant to the audit objectives.	We reviewed relevant laws, rules, and regulations.
Review and evaluate the management, control, and operational structure of the Division of the State Architect (division) in the areas of construction oversight and project closeout.	We reviewed laws and regulations that govern construction oversight and project closeout, reviewed division policies and reports related to construction oversight and closeout, and interviewed division staff responsible for construction oversight and closeout. We determined that the management, control, and operational structure is adequate for construction oversight and project closeout, except as we discuss in Chapter 2.
Determine the effectiveness of the division's structure in ensuring consistent compliance throughout the State with the Field Act and the fire and safety provisions of the California building code.	We interviewed division staff responsible for construction oversight and reviewed a random selection of 40 project files to determine whether the division appropriately implemented its project oversight and close-out procedures. We also assessed the extent to which projects remain uncertified, reviewed the division's construction oversight and close-out processes to identify why projects remain uncertified, and reviewed a random selection of 21 uncertified projects to determine whether such projects were appropriately classified on closeout. Finally, we reviewed a draft division report on a field pilot in the Sacramento region that expanded fire and life safety oversight during the construction phase and we compared the expertise of the division's plan review staff to that of its construction oversight staff.
Review and evaluate performance measures used by the division to measure effectiveness in performing construction oversight and project close-out functions.	We interviewed the division's Performance Metrics Section manager.
To the extent possible, determine whether performance measures used by the division are consistent with standards or best practices established in the construction planning and oversight community.	As discussed in Chapter 2, the division does not have performance measures for the construction oversight and project close-out phases.
Review and evaluate the methods used by the division to determine appropriate staffing levels and to ensure that staff possess the knowledge, skills, and abilities required to perform construction oversight and project close-out functions.	We interviewed division staff about the methods used to determine staffing levels and reviewed the last division document that estimated needed staffing levels. We also compared the minimum qualifications for division staff to duty statements to assess whether these requirements match the functions of the positions. Further, we reviewed training requirements and classes offered by the division.
Determine if staff shortages have occurred in the construction oversight and/or project close-out functions and how they were addressed. Further, determine the extent to which staff performing construction oversight and project close-out functions have been shifted to other functions within the division, and assess the reasonableness of the criteria used by the division to determine if those staff had the requisite knowledge, skill, and ability to perform such other functions.	We compared the division's actual staffing levels to positions authorized in the budget. We also reviewed a division action plan that shifted some staff time at regional offices to plan review and a memorandum of understanding between the division and another division of the department intended to backfill the shifted time. We estimated the impact of these actions on the time devoted to construction oversight, and interviewed division staff about their view of the effect of these actions on construction oversight. For staff shifted to plan review and those used to backfill, we compared their position descriptions to the new tasks required of them and found that they were aligned and appropriate.
Determine whether, and to what extent, the division uses contractors to perform construction oversight and project close-out functions.	We interviewed division staff responsible for contracting and determined that the division uses contractors primarily for plan review. We will assess plan review-related contracting in phase two of this audit.*
Review and evaluate division processes used to ensure the competency of contractors used in construction oversight and project close-out functions.	We will assess the processes the division uses to ensure the competence of plan review contractors in phase two of this audit.*
Review and evaluate the ongoing training requirements for division staff and contractors used in construction oversight and project close-out functions. Determine what division processes ensure that staff and contractors meet these training requirements.	We interviewed staff responsible for the division's staff training program and reviewed associated records. We will review training requirements for contractors during phase two of this audit.*

AUDIT OBJECTIVE	METHODOLOGY
Determine and assess the adequacy of the processes the division uses to monitor staff and contractor performance and to take appropriate action when necessary.	We interviewed supervisors regarding staff performance evaluations, reviewed the division's processes for conducting staff evaluations, and reviewed evaluations for a selection of staff at each regional office. We determined that staff received evaluations as required. We will review the monitoring of contractor performance in phase two of this audit.*
Review and evaluate the procedures used by the division to ensure that building safety violations are corrected prior to pupil occupancy.	We reviewed the division's procedures for resolving deficiencies during the construction and close-out phases, reviewed a random selection of projects with identified deficiencies that closed without certifications, and interviewed division staff.
Determine if the division has a backlog in construction oversight or project close-out functions. If there is a backlog, determine how the division is addressing the backlog in the short term and long term.	We calculated the number of projects at June 30, 2011, where construction had been completed for at least six months but the division had not sent 90-day letters (described earlier) and closed the projects.
Determine if there are significant statutory, regulatory, or other impediments to the timely and judicious completion of the division's seismic safety responsibilities under the Field Act.	We reviewed the Field Act and related regulations and interviewed division staff to obtain their opinion on legal or regulatory barriers.
Review and assess any other issues that are significant to the division's construction oversight and project close-out functions.	Because inspectors play an important role in construction oversight, we interviewed division staff regarding inspector certification, reviewed the division's inspector certification process, and examined a random selection of 29 certified inspectors <sup>†</sup> to assess whether the division implemented its procedures. We also interviewed regional office managers regarding inspector performance evaluations and reviewed the division's process for conducting inspector evaluations.

\* The division contracts for plan review services. While the division may use these contractors to review changes to plans during construction, the primary purpose of these contracts is plan review. Therefore, we will evaluate the competency of contractors in the second phase of this audit.

† Because the division did not comply with its record retention policy and maintain inspector certification records for all active inspectors, we were unable to verify the completeness of the division's entire active inspector list and only randomly selected inspectors whose most recent certification record still existed: inspectors who recertified since January 2007 and all inspectors who were certified for the first time or who upgraded their certification since January 2008.

To support its work, the division uses a database called Tracker (database), which it developed in 1997 to manage the projects submitted by school districts. This database tracks project applications, key dates (such as plan approval and construction start and end dates), the inspectors assigned to projects, and the types of project closure. The database also generates invoices and calculates the various fees owed to the division for certain aspects of its work. The database links to scanned copies of documents, when available.

To address several of the audit committee's objectives, we relied on data the division provided. The U.S. Government Accountability Office, whose standards we follow, requires us to assess the sufficiency and appropriateness of computer-processed information. To comply with this standard, we assessed the reliability of the division's database for the purpose of identifying the number and estimated cost of projects that were in the construction oversight or project close-out phases in fiscal years 2008–09 through 2010–11. We also assessed its reliability for determining which projects within this universe had received close-out letters and the amount of time between construction completion and June 30, 2011, for projects that had not begun the close-out process as of that date.

To assess the reliability of the division's data, we reviewed documentation and interviewed appropriate division staff. In addition, we performed data-set verification procedures and electronic testing of key data elements. We also tested the completeness and accuracy of the data by tracing random selections of records to and from supporting documentation. Our review of existing information identified two data limitations. The division's database does not track information on any projects submitted to the division before November 1997. Further, the database does not track if projects reopen regardless of whether the project was initially recorded in the database. Because some projects are required to pay a fee when they reopen, we were able to identify a portion of the reopened projects using the fee information. The reopened projects we identified, although incomplete, were included in our analysis.

We identified no issues when performing data-set verification procedures, but found minor errors in our electronic testing, some of which we were able to correct. Further, we tested the completeness of the database by selecting 29 projects from regional files and verifying that these projects existed in the database; we found no errors in this testing. We also tested the accuracy of the database by testing key data elements for a random sample of 29 projects and tracing the selected elements to the project files. In this sample, we found one error, so we continued testing until we had tested a total of 47 randomly selected projects and found no additional errors. However, because the division did not have a consistent method for identifying the date construction ended, we were unable to test the accuracy of this field.

Based on our testing and the known limitations of the data, we determined the division's Tracker data to be of undetermined reliability for identifying the number and estimated cost of projects that were in the construction oversight or project close-out phases in fiscal years 2008-09 through 2010-11, identifying which projects received close-out letters, and determining the amount of time between construction completion and June 30, 2011, for projects which had not yet begun the close-out process as of that date.

## Chapter 1

### **A SIGNIFICANT NUMBER OF SCHOOL CONSTRUCTION PROJECTS REMAIN UNCERTIFIED, IN PART BECAUSE THE FIELD ACT HAMPERS THE ABILITY OF THE DIVISION OF THE STATE ARCHITECT TO ENFORCE CERTIFICATION REQUIREMENTS**

As discussed in the Introduction, the Division of the State Architect (division) is responsible for overseeing most construction projects at K-12 schools and community colleges to certify that these projects comply with the requirements of the Field Act and the building standards in Title 24 of the California Code of Regulations (building standards). However, a significant number of the state's closed school construction projects remain uncertified. Statewide, the division closed more than 2,000 projects out of nearly 8,800 without certification during the last three fiscal years. This large number of uncertified projects is in part because the division's ability to ensure that projects comply with certification requirements is hampered by the Field Act, which allows school districts<sup>4</sup> to occupy projects regardless of whether the division has certified them and which grants the division little authority to penalize school districts for noncompliance.

Despite the limitations the Field Act places on it, the division could take steps to attempt to increase the number of projects it certifies and to mitigate the risks that uncertified projects may pose. However, it has not consistently chosen to do so. Although the act grants the division some tools it could use to encourage compliance, the division uses them infrequently and inconsistently. In particular, the division has the ability to order that districts stop work on a project when it identifies a potential threat to public safety; however, it has not consistently used this authority.

Moreover, the division has not effectively documented its determinations about the risk level of uncertified projects, nor has it used its risk-level classifications to guide its approach to following up on uncertified projects. Without well-documented decisions and a classification system that impacts operations, the division risks miscommunicating the true risks associated with uncertified projects and clouding efforts it might make to follow up on projects with serious outstanding issues. In fact, since 2008, the division has only followed up three times on projects that remained uncertified and it can only speak to the success of one of those efforts.

<sup>4</sup> The Field Act, building standards, and the division's interpretation of regulations use terms including *school district*, *school board*, and *governing board of a school district* to refer to local entities with responsibilities under the act. In our report, we use the term *school district(s)* or *district(s)*.



### Elements of the Field Act Make it Difficult for the Division to Ensure That All School Construction Projects Comply with Certification Requirements

The Field Act establishes certification as a mechanism to ensure that school districts construct projects according to approved plans and that key individuals document required processes and controls. However, the division closed a substantial proportion of projects in the past three fiscal years without certification. As Table 3 demonstrates, the division was unable to certify 23 percent of approximately 8,800 projects that it closed during fiscal years 2008–09 through 2010–11, or more than 2,000 projects. In addition, the division’s tracking reports indicate that an accumulated total of nearly 16,400 closed projects with a total estimated cost of over \$17.6 billion remained uncertified as of December 2010.

**Table 3**  
Status of Projects the Division of the State Architect Closed Between July 1, 2008, and June 30, 2011, by Region and Fiscal Year

	FISCAL YEAR 2008–09	FISCAL YEAR 2009–10	FISCAL YEAR 2010–11	TOTALS
<b>Statewide</b>				
Certified	2,251	2,002	2,475	6,728
Uncertified	575	651	812	2,038
Total closed	2,826	2,653	3,287	8,766
Percent of projects closed that were uncertified	20%	25%	25%	23%
<b>Oakland</b>				
Certified	584	400	611	1,595
Uncertified	182	89	166	437
Total closed	766	489	777	2,032
Percent of projects closed that were uncertified	24%	18%	21%	22%
<b>Sacramento</b>				
Certified	619	586	623	1,828
Uncertified	124	149	204	477
Total closed	743	735	827	2,305
Percent of projects closed that were uncertified	17%	20%	25%	21%
<b>Los Angeles</b>				
Certified	473	457	569	1,499
Uncertified	114	338	291	743
Total closed	587	795	860	2,242
Percent of projects closed that were uncertified	19%	43%	34%	33%
<b>San Diego</b>				
Certified	575	559	672	1,806
Uncertified	155	75	151	381
Total closed	730	634	823	2,187
Percent of projects closed that were uncertified	21%	12%	18%	17%

Source: Bureau of State Audits’ analysis of data obtained from the Division of the State Architect’s (division) Tracker database.

Note: This table excludes projects that the division closed because school districts cancelled them.



The Field Act allows school districts to occupy projects regardless of whether the division has certified them. According to the act, “nothing . . . shall prevent beneficial occupancy by a school district prior to the issuance of . . . certification.” This means that the division cannot deny a school district the ability to use a project, even if the division is aware of a serious issue preventing certification. For example, in the division’s records for one project we reviewed, the division noted that the district did not install a required fire hydrant for a multipurpose building by the end of construction in August 2007. The district nevertheless began using the building at that time. According to the records, the field engineer responsible for oversight of the project did not receive confirmation from the district that it had installed the hydrant until December 2009, after the division’s repeated communications about this issue. This means that the district may have used the building for nearly two and a half years without the installation of the required hydrant. In another instance, a school district constructed bleachers inside an athletic center in 2004 without using an inspector. According to division records, an after-the-fact inspection of the project in 2008 showed that the district had not completed planned work on a fire alarm, and as of September 2011, the division still noted this issue as outstanding. Despite this incomplete work, the district put this project to use seven years ago.

The Field Act grants the division certain limited tools it can use during construction to ensure that districts complete projects without deviating from approved plans, which we discuss in greater detail in the next section. However, certification also requires documentation of processes and controls established in the act. This documentation, such as final verified reports from key individuals, provides additional assurance that districts have constructed projects in accordance with the approved plans. The text box shows the documents that the division requires before it certifies projects. Despite the importance of these documents, the act does not provide the division with express statutory authority to penalize districts that do not provide them, aside from authorizing the denial of certification.

Though various parties are responsible for different aspects of these certification requirements, school districts are ultimately responsible for obtaining certification of projects. According to regulations and the Field Act, school districts initiate the process of project plan approval, employ project inspectors, and receive letters of certification from the division. The act even provides districts

#### Documents the Division of the State Architect Requires for Certification

- Notice of Completion\*—Includes the date of completion and the signature of the district representative.
- Final Verified Reports\*—Includes attestations from the inspector, design professional, and contractor that construction does or does not comply with division-approved plans. The division may also require reports from special inspectors, such as masonry inspectors, depending on project specifications.
- Testing and Inspection Documents—Includes laboratory-verified reports of material tests and verified reports from geotechnical engineers.
- Application†—Includes the names of the design professional(s) whom the division will require to sign verified reports.
- Contract Information Form—Includes information about contractors on the project.

Source: The division's *Project Certification Guide*.

\* The pertinent parties cannot submit these documents until the district completes construction.

† The district submits an application prior to plan review and approval.

*Although the division's enforcement authority is limited, the division may be less effective in correcting identified safety concerns before districts complete construction and occupy school facilities by not fully taking advantage of the authority state law does grant it.*

with the ability to pursue certification if other responsible parties fail to submit final verified reports to the division. Without the authority to penalize districts for not complying with certification requirements by denying them the ability to use facilities or by imposing monetary penalties, the division has little leverage to ensure that projects meet certification requirements and are safe for public use.

### **The Division Rarely Exercises Its Authority to Stop Work on Projects That Do Not Comply With State Law**

Although the division's enforcement authority is limited, it does have the ability to block new projects from moving forward if they are associated with existing uncertified projects or to stop work on a project if the division identifies safety concerns during the construction process. According to division staff, the division regularly uses the first of these tools; however, our review indicated it rarely uses the second. By not fully taking advantage of the authority state law grants it, the division may be less effective in correcting identified safety concerns before districts complete construction and occupy school facilities.

As part of its process for approving new projects, the division usually requires the certification of associated, previously uncertified projects. According to the division's interpretation of regulations, it may deny approval to a new construction project if the new project is connected to a previously uncertified project, unless the new project is solely for the purpose of upgrading fire and life safety aspects of a building. When design professionals submit plans for approval to the division, they must identify any previous construction projects that are associated with the plans. The division investigates these previous projects and requires school districts to complete certification of uncertified projects before it grants plan approval for new projects. According to the acting state architect, the division's authority to deny approval to new projects is the main reason that school districts take the actions necessary to gain certification of previously uncertified projects. However, the division cannot quantify the impact this policy has on reducing the number of uncertified projects because it does not separately track projects it has certified as a result of this approach.

A workgroup composed of representatives of school districts, the division, other state agencies, and construction industry stakeholders released a review of public school construction in October 2010. This workgroup report noted three priority issues, one of which was new projects being held up because of past uncertified projects. The review suggested a number of solutions

including that the division not block new projects that are limited in scope to resolving health and safety issues. According to the acting state architect, the division is considering revisions to its interpretation of regulations that outline its blocking policy. Nevertheless, as the division asserts that the blocking policy is an effective policy for encouraging districts to pursue certification, it should ensure that any modifications to the policy do not weaken its enforcement powers.

The Field Act also gives the division the authority to issue orders to stop work on projects when districts are not performing construction in accordance with building standards, and thus are compromising the structural integrity of buildings and putting public safety at risk. According to the division's interpretation of regulations, it can issue either an order to comply, which informs a district that the division may order construction to stop on a project unless the district resolves identified problems, or a stop work order, which shuts down construction until the district resolves the problems. The text box describes examples of situations in which the division may order a district to stop work on a project. Depending on the circumstances, the division may issue an order to comply before issuing a stop work order or it may simply issue the stop work order. However, once the district completes construction, the division cannot use either of these means to resolve identified deficiencies.

**Examples of circumstances under which the Division of the State Architect may stop construction on a project:**

- A district undertakes construction without division approval of plans and specifications.
- The construction work is defective.
- A district uses unapproved or noncomplying materials.
- Construction does not meet building codes or standards.
- A district does not perform required tests or inspections.
- Other circumstances occur that the division determines could endanger public safety.

Source: *The division's Interpretation of Regulations Manual.*

Although the division has the authority to issue orders to comply and to stop work, it has rarely used these tools. According to records provided by the regional managers, the division issued only 23 orders to comply and six stop work orders during the last three fiscal years. Of the 23 orders to comply, 14 were related to situations in which districts moved forward on construction without division-approved inspectors. The remaining nine orders to comply were related to circumstances in which districts undertook construction without division-approved plans or after changing their plans without approval. None of the stop work orders were due to construction deficiencies. The division issued all six stop work orders to districts that started construction without division-approved plans. In each instance, division records indicate that the school districts resolved identified issues.

The ability to stop construction on a project provides the division with a useful tool to enforce compliance with the Field Act. However, the division is not taking full advantage of that tool.

*We found that on 22 of 34 projects we reviewed, the division had not yet approved inspectors a month after the districts had started construction.*

For example, we found that on 22 of 34 projects we reviewed, the division had not yet approved inspectors a month after the districts had started construction. Yet the division did not issue an order to comply or a stop work order for any of these projects. As further discussed in Chapter 2, the division cannot demonstrate that it is providing adequate oversight of construction projects. With improved oversight, the division could more readily identify circumstances warranting the use of such orders.

If the division does not stop work on projects in a timely fashion, it risks that construction will not adhere to approved plans and thus not be certifiable. According to the acting state architect, the division usually informally resolves situations that could warrant the issuance of one of the described orders so that it can maintain good collaborative relationships with the school districts. Regional managers further indicate that division staff usually give school districts the opportunity to correct noncompliant situations voluntarily before issuing these orders and that the issuance of these orders usually indicates that the division's working relationship with a district is strained. Nevertheless, the large number of uncertified projects strongly suggests the division should make broader use of these tools.

### **The Division Lacks a Consistent, Transparent Process for Identifying and Addressing Uncertified Projects That May Pose Safety Risks**

The division may deny certification for a wide variety of reasons. In our testing, we observed that these reasons ranged from a lack of required reports to construction problems that might put the public at risk. The division recently undertook efforts to ensure consistency in its process for distinguishing between projects with and without identified outstanding potential safety issues. However, when it classifies uncertified projects as having safety issues, the division does not document the basis for its decisions. Moreover, it does not use these classifications to prioritize actions related to projects with safety concerns.

As discussed in the Introduction, when it closes a project, the division issues a letter to a school district stating whether it can or cannot certify that project. As shown in Table 4, there are four types of closure letters. The division classifies uncertified projects into two categories: type three projects and type four projects. However, the division's statewide implementation of its classification system has not always been consistent. According to the acting state architect, when media attention focused on uncertified projects in late 2009, the division became aware that the four regions were not consistently categorizing projects. After discussion among the regional managers, the division issued a new definition

of the type of problems that would cause projects to merit a type four classification. Specifically, it revised its policy to state that type four projects are those for which the division has evidence of unresolved safety deficiencies related to construction. An internal memo to division staff dated July 2010 further defined the type four classification, including only examples involving situations that could potentially cause injury or death.

**Table 4**  
**Conditions for Issuing Different Types of Project Closure Letters**

TYPE OF CLOSURE LETTER	CERTIFICATION STATUS	LETTER IS ISSUED WHEN...
Type One	Certified	<ul style="list-style-type: none"> <li>• The Division of the State Architect (division) has received all required documents.</li> <li>• The school district has completed construction in compliance with the requirements of the Field Act.</li> </ul>
Type Two	Certified	<ul style="list-style-type: none"> <li>• The school district has requested that the division certify a project using alternative documents or procedures due to the incapacitating illness, death, or default of an individual responsible for filing final verified reports.</li> <li>• The division has determined that the school district has completed construction in compliance with the requirements of the Field Act.</li> </ul>
Type Three	Uncertified	<ul style="list-style-type: none"> <li>• The pertinent parties have not submitted or properly completed required documents, OR</li> <li>• There is a reported and unresolved deviation during construction, including unconstructed elements of a project that were required, OR</li> <li>• The school district has not paid all required fees to the division.</li> </ul>
Type Four	Uncertified	<ul style="list-style-type: none"> <li>• The division, the project inspector, or the design professional has noted a safety issue that remains unresolved.</li> <li>• Conditions noted for type three may also be present.</li> </ul>

Source: The division's *Project Certification Guide*.

According to the acting state architect, the division's regional field staff subsequently reviewed all existing type four projects in their regions to ensure that they were aligned with the new definition. He explained that the regional managers reclassified as type three those projects that they thought no longer met the definition of a type four project. Type three projects are still uncertified but do not have identified safety concerns according to the division's classification system. The acting state architect said that the division also implemented a new process for making type four determinations after its reevaluation effort. A regional manager now receives a recommendation from the field engineer assigned to a project and the regional manager must give final approval for a type four classification.

***We noted a number of problems with the division's implementation of its classification system, including that it does not document the rationale for classifying a project as type four rather than type three.***

We noted a number of problems with the division's implementation of its classification system. Specifically, although the division documents any problems that prevent certification in the project record, according to the acting state architect, the division does not document the rationale for classifying a project as type four rather than type three. This makes it difficult to distinguish between some type threes and type fours. For instance, we reviewed 22 uncertified projects and noted projects that appeared to have similar deficiencies that the division had categorized differently. For example, the records for one project that the division identified as type four noted that the district had given the project inspector drawings that the division had not approved and for which the design professional on the project had not assessed the path of travel.<sup>5</sup> However, the division categorized two other projects with similar issues as type three. In one of those projects, a district had not completed a curb ramp on a project.<sup>6</sup> In the other, a district constructed a project without approved plans or approved inspectors. Because the division did not provide any justification for why similar problems would sometimes trigger type four designations and sometimes type three designations, the meaningfulness of its classification process appears questionable.

Despite the effort the division put into reclassifying projects after media attention focused on the large number of uncertified projects, it does not give much weight to the type four designation. The acting state architect said that the type four designation is not tangible evidence of safety concerns and that type three projects are not necessarily any less dangerous than type four projects. Further, he elaborated that the division notifies a school district only of a "potential" safety concern when it classifies a project as a type four because the division has not always verified in the field that problems exist. Further, in e-mail correspondence with the Department of General Services, the division's policy deputy stated that the issues that remain outstanding with type four projects do not rise to a level of significance that would warrant immediate concern. The acting state architect stated that the current classification system does not accurately capture the relative level of risk of a project's deficiencies and therefore should not be used to notify the public about safety concerns. These statements appear to contradict the definition of type four projects that the division provided in the certification guide and an internal memo dated July 2010 that guides division staff in making classification decisions.

<sup>5</sup> The building standards define *a path of travel* as a continuous, unobstructed way of passage for pedestrians and/or wheelchair users.

<sup>6</sup> The building standards define *a curb ramp* as a potential component of a path of travel, intended for pedestrian traffic.



Moreover, the division does not use the type four designation to guide its monitoring or follow-up of projects. According to the acting state architect, the division treats type four projects essentially the same way it does type three projects. In either case, when the division closes a project without certification, it completes little to no additional follow-up work, as we discuss further in the next section. The acting state architect also reported that the division has not explicitly considered notifying the public about the projects it has classified as type four.

The existence of a classification system that identifies projects with deficiencies that could cause serious injury or death suggests that the division is aware that such projects may exist. Yet its statements regarding type four projects and its lack of action regarding these projects demonstrate that the division lacks concern about them. By maintaining a system that purports to identify safety concerns but does not document the reasoning behind classification decisions or affect follow-up activities, the division may miscommunicate the risks associated with uncertified projects and impede efforts it might make to follow up on projects with serious outstanding issues.

### **The Division Has Infrequently Attempted to Persuade School Districts to Pursue Certification of Closed Projects**

Although the division faces a limited set of options to persuade school districts to comply with the Field Act, it can remind districts of their responsibilities regarding uncertified projects. However, once the division notifies districts that it has closed projects without certification, it does not regularly communicate with them about those projects. The division informed us of three statewide efforts since 2008 to contact districts to encourage them to pursue certification. First, in 2008, the division sent a form letter to school district superintendents to remind them of the importance of Field Act certification. According to the acting state architect, the division sent this letter to all K-12 and community college school districts and did not include information on specific uncertified projects. Second, according to the division's performance metrics manager, in early 2010 the division sent letters related to all projects that its records showed were closed and uncertified. By offering a reduced reopening fee, this effort encouraged districts to respond to the division. However, according to the performance metrics manager, the division did not measure the response to this letter. Third, the division sent another letter to select districts in April 2011 related to 98 projects the division had identified as having been closed as category fours. These letters contained project-specific

*The existence of a classification system that identifies projects with deficiencies that could cause serious injury or death suggests that the division is aware that such projects may exist but its lack of action regarding these projects demonstrates that the division lacks concern about them.*

*Because the division does not believe it has a responsibility beyond issuing closure letters to districts, it has not adopted a statewide policy for any additional follow-up.*

details and encouraged the districts to contact the division to reopen these projects. As of October 2011 the acting state architect said that the division has been able to clear 10 of the 98 projects.

Because the division does not believe it has a responsibility beyond issuing closure letters to districts, it has not adopted a statewide policy for any additional follow-up. According to the acting state architect, once the division sends closure letters to school districts, the division has fulfilled its obligation and school districts are responsible for taking the next step. Each of the four regions offered its own perspective on following up on uncertified projects: The regional managers from the Sacramento and Oakland regions stated that they do not follow up with districts because of limited resources, the San Diego regional manager stated that his office does not follow up because the division has no formal follow-up policy, and the Los Angeles regional manager stated that his office will occasionally remind two large districts that they have outstanding type four projects and will less frequently contact others about uncertified projects.

Nevertheless, the acting state architect provided us with a business plan that the division drafted in partnership with the department to increase its efforts to follow up on uncertified projects. The plan details objectives the division will address with a target completion date of June 30, 2012. According to the business plan, the division plans to categorize all projects uncertified as of January 2011 by size, complexity, and district. The business plan notes that identifying uncertified projects in this manner will allow the division to effectively use its resources to meet its certification workload. According to the acting state architect, identifying the projects' size and complexity will allow the division to prioritize larger and more complex projects in future follow-up work. He also stated that the division had considered implementing a repeating notification system that would regularly remind school districts of their uncertified projects. However, the business plan does not require the division to actually contact school districts regarding uncertified projects. Unless the division takes more proactive steps to address uncertified projects, including contacting school districts, the division is likely to continue to be unable to provide assurance to the public that these projects meet state requirements and thus are safe.

### **The Los Angeles Region Had a High Rate of Uncertified Projects**

Compared to the other regions, the Los Angeles region has recently had a significantly higher rate of projects closed without certification. During the last three fiscal years, 33 percent of projects the division closed in the Los Angeles region were uncertified, compared to



22 percent or less at each of the other regions. Part of the discrepancy between regions may be due to the Los Angeles region’s size and staffing levels. As shown in Table 5, the Los Angeles region is the largest, according to several measures. In fact, the Los Angeles region represents nearly one-third of the state’s population and one-third of its K-12 students. Further, the Los Angeles regional office had a higher number of projects active in fiscal years 2008–09 through 2010–11 than any of the other offices. However, with 14 staff focused on oversight and project close-out activities, the Los Angeles regional office has about the same number of authorized staff as each of the other regional offices.

**Table 5**  
**Division of the State Architect’s Population Served and Estimated Value of Active Projects, by Regional Office**

		REGION				TOTALS
		LOS ANGELES	OAKLAND	SACRAMENTO	SAN DIEGO	
IN MILLIONS	Population	11.9	8.1	6.8	10.5	37.3
	Percent of total population	32.05%	21.62%	18.13%	28.20%	100.00%
	Total 2010–11 K-12 enrollment	2.0	1.1	1.2	1.9	6.2
	Percent of enrollment	31.79%	18.05%	19.93%	30.23%	100.00%
IN BILLIONS	Total number of projects active, fiscal years 2008–09 through 2010–11	5,557	4,146	3,529	4,581	17,813
	Percent of all active projects	31.20%	23.28%	19.81%	25.72%	100.00%
	Total estimated cost of active projects, fiscal years 2008–09 through 2010–11	\$14.0	\$9.3	\$7.8	\$13.3	\$44.5
	Percent of total estimated cost	31.66%	20.79%	17.60%	29.94%	100.00%

Sources: U.S. Census Bureau, 2010 Census data; the California Department of Education’s DataQuest Enrollment Report; and the Bureau of State Audits’ analysis of data obtained from the Division of the State Architect’s Tracker database.

Additionally, as previously depicted in Table 3 on page 16, the Los Angeles region experienced a large increase in the number of uncertified projects closed, from 114 in fiscal year 2008–09 to 338 in fiscal year 2009–10. According to the interim regional manager,<sup>7</sup> the increase resulted from a statewide effort to close projects, during which the Los Angeles region discovered many cases for which it had not sent 90-day notifications when they were due. In other words, the region had a pool of projects that it should have already closed.

<sup>7</sup> According to the division’s operations branch deputy, the San Diego regional manager was also the interim regional manager for the Los Angeles region at the time he communicated this information to us.

## Recommendations

To ensure public safety and provide public assurance that school districts construct projects in accordance with approved plans, the department, in conjunction with the division, should pursue legislative changes to the Field Act that would prohibit occupancy in cases in which the division has identified significant safety concerns. Further, the Legislature should consider implementing additional penalties for school districts that do not provide all required documents.

To better use the enforcement tools at its disposal, the division should continue and expand its use of both orders to comply and stop work orders, as defined in its regulations. The division should also develop performance measures to assess the success of any efforts it makes to address safety concerns and reduce the number of uncertified projects.

To ensure that it clearly justifies the reasons a project's noted issues merit a particular classification, the division should either modify its current policies regarding classifying types of uncertified projects or develop new policies, including requiring documentation of the rationale behind project-specific classifications. It should use its classifications to prioritize its efforts to follow up on uncertified projects based on risk and to better inform the public regarding the reasons it has not certified projects.

To reduce the number of uncertified projects, the division should implement initiatives to follow up with school districts on uncertified projects. Those initiatives should include, at a minimum, regularly sending each district a list of its uncertified projects and assessing the success of the division's follow-up efforts.

## Chapter 2

### THE DIVISION OF THE STATE ARCHITECT'S OVERSIGHT OF THE CONSTRUCTION PROCESS IS NEITHER EFFECTIVE NOR COMPREHENSIVE

The Division of the State Architect (division) has not provided an effective, comprehensive level of oversight of school construction processes. Specifically, although the Field Act directs the division to visit sites as it deems necessary for enforcement of the act and for the safety of pupils, teachers, and the public, the division does not have a process for planning the oversight it will perform for projects of similar size and complexity and cannot demonstrate that it has provided adequate field oversight. For example, three of 24 closed projects we reviewed did not have any evidence of a site visit on file; one of these closed projects had an estimated cost of \$2.2 million. Additionally, another eight closed projects had evidence of only one site visit each.

Moreover, although the division relies on project inspectors who are paid by school districts<sup>8</sup> to ensure that districts build projects according to approved plans, we noted several areas of concern related to the division's oversight of inspectors. Although the relationship between inspectors and entities involved in construction creates an inherent risk that projects may not comply with approved plans, the division has not implemented robust mitigation strategies. Additionally, in violation of regulations, school districts often start construction on projects before the division formally approves project inspectors. Further, the division has sometimes excused inspectors from required trainings, has not ensured that all inspectors have passed the most current version of the inspector exam, and recently ceased its formal evaluation of inspector performance.

We noted other problems with the division's construction oversight process as well. Although the division reviews plans for school construction projects in three disciplines—structural safety, fire and life safety, and accessibility—it does not provide construction oversight in the last two of these disciplines. Further, it lacks performance measures it could use to gauge the success of its oversight of the construction and close-out phases of projects. The division's inability to provide effective oversight of school construction processes may be in part the result of staffing challenges; however, it was not possible to determine the extent of this problem because the division has not recently performed

<sup>8</sup> The Field Act, building standards, and the division's interpretation of regulations use terms including *school district*, *school board*, and *governing board of a school district* to refer to local entities with responsibilities under the act. In our report, we use the term *school district(s)* or *district(s)*.

an assessment of its staffing needs. Without assurance that it is conducting regular, comprehensive oversight of construction projects, the division cannot be certain that all of the projects it oversees meet the requirements of the Field Act and are safe.

### **The Division Lacks a Formal Policy for Planning Field Visits, and Its Processes for Documenting Its Oversight Are Weak**

Many of the required inspector reports were missing from the project files we reviewed. State regulations require that project inspectors submit semimonthly reports to the division. These reports, which detail a project's status as well as problems or noncompliant conditions, serve as evidence that the inspector has provided continuous inspection. Failure to submit timely reports is one cause for the division to withdraw its approval of an inspector. Although its policy requires field engineers to review inspectors' semimonthly reports, the division does not have a procedure for ensuring that field engineers receive all required reports. Consequently, we found that many inspector reports were missing. For example, five of 34 projects we reviewed that the division had noted as having started construction had no semimonthly reports on file even though construction on each had lasted between two and 21 months. For another 17 of these projects, at least one of the inspector reports—which are numbered sequentially—was missing. In total, 95 of the 384 required semimonthly reports were missing from the project files we reviewed. Without receiving these reports, the division has less assurance that project inspectors are providing the continuous inspection the Field Act mandates.

*In total, 95 of the 384 required semimonthly reports were missing from the project files we reviewed.*

In addition to monitoring inspector reports, the Field Act directs the division to visit school construction project sites as it deems necessary for enforcement of the act and the safety of pupils, teachers, and the public. As described in the Introduction, projects can range in scope from simple alterations to the complex construction of an entire school campus. The division relies heavily on project inspectors—school district employees or contractors—to ensure that these diverse projects comply with approved plans. As its means of overseeing this important activity, the division uses periodic contact from its own field engineers to ensure that inspectors are properly performing their prescribed duties. Given these circumstances, we expected that the division would have a well-defined process for determining how many times field engineers should visit a particular project and a mechanism for ensuring that these visits actually occur.

However, we found that the division does not have a process for planning the oversight it will perform for projects of similar size and complexity. Division policy requires field engineers to

visit project sites at critical points during construction and to avoid arbitrarily scheduled visits. It also states that the process of inspector evaluation must be consistent for all projects even though large projects normally receive regular site visits and performance observations. The acting state architect explained that the division bases the number of visits on the needs of the project and the judgment of the assigned field engineer. Giving field engineers this much latitude to determine how many visits a project should receive is likely to result in inconsistent oversight across the State. Further, this approach neither establishes an expectation against which the division can measure its performance, nor allows the division to hold its field engineers responsible for performing sufficient visits to similar projects. Interestingly, when developing the field pilot program—which we describe later—the division did establish criteria of a minimum of one visit to all sites and monthly site visits for projects with construction activity lasting more than three months, noting that this was the historical criteria it had used for field visits. However, the division never implemented the field pilot program criteria statewide. The division’s lack of setting an expectation as to the number of field visits different types of projects require, makes it difficult for the division to demonstrate that it provides adequate oversight.

In addition, for a number of tested projects, the division could not demonstrate that it had provided adequate field oversight. The division’s field manual states that field engineers will complete field trip notes for each visit that describe, among other things, any concerns they have about the inspector’s performance or about the project. However, we found no field trip notes on file for three of 24 closed projects we reviewed, even though construction on the projects had lasted between five and 32 months. These projects had estimated costs of \$270,000, \$1.8 million, and \$2.2 million, respectively. Additionally, we found notes for only one field visit in each of the files associated with eight other projects—three with estimated costs of over \$500,000 each. The acting state architect explained that field trip notes provide all dates of the division’s field interaction. He also stated that although he believes that engineers document most site visits with field trip notes, there could be exceptions. Without notes documenting each field visit, the division cannot demonstrate that it is providing adequate oversight of projects and project inspectors, increasing the risk that construction may not comply with approved plans.

Further, because the dates the division records in its database for the start and end of construction can come from different and sometimes undocumented sources, assessing whether its oversight efforts cover the entire construction period can be difficult. According to division procedures, field engineers may learn of the start of construction in several ways, including receiving a notice

***We found no field trip notes on file for three of 24 closed projects we reviewed, even though construction on the projects had lasted between five and 32 months and the projects had estimated costs of \$270, 000, \$1.8 million, and \$2.2 million, respectively.***

*While the division generally adheres to its process for closing projects, it has a backlog of over 400 projects, representing 5 percent of projects closed in the last three fiscal years.*

of the start of construction from the school district, receiving a phone call from the inspector, or visiting the site. Each of these sources could potentially provide a different start date that would not necessarily coincide with the date the district actually began construction. Similarly, the division may draw on several sources for the construction end date, which may not accurately or consistently represent the actual end of construction. For example, one project we reviewed had an inspector's semimonthly report dated nearly six months after the date the division's database stated that the district had ended construction. Because the start and end dates that the division records are not always accurate, neither we nor the division are able to determine with certainty whether the division's oversight activities adequately covered the entire construction process. However, because the division's database was the only source of such information across all projects, we used it in evaluating the division's oversight efforts.

Finally, while the division generally adheres to its process for closing projects, it has a backlog of over 400 projects, representing 5 percent of projects closed in the last three fiscal years. Specifically, as of June 30, 2011, the division had 142 projects that were still active between six months and one year after the date when it had noted that construction had ended, and 284 more were listed as still active more than a year after the noted construction end date. The division had not yet sent 90-day letters for any of these projects. The 90-day letter provides school districts with information on what the division requires in order to certify projects. If school districts do not receive this information in a timely manner, they are more likely to have trouble obtaining required reports or correcting any deficiencies noted by inspectors as the parties involved in the project move on to new ventures. The regional managers cited several reasons why delays in sending out the 90-day letters might occur, including limited close-out staff; the inclusion of incorrect construction end dates in the division's database; and poor communication among field engineers, architects, and close-out staff.

### **The Division Does Not Adequately Approve, Train, and Supervise Project Inspectors**

As discussed in the Introduction, the division relies heavily on project inspectors to ensure that school districts build projects in accordance with approved plans. However, this reliance presents an inherent risk because districts contract with or employ the inspectors, creating the possibility that the districts may attempt to influence them. The division does not have an adequate process to mitigate this risk. In addition, the division has not always approved inspectors before construction starts. Finally, its



training and certification processes for inspectors have weaknesses, and it lacks a process for evaluating inspectors. Without stronger safeguards in place, the division cannot be sure that districts construct projects in a way that maximizes public safety.

***The Relationship Between Project Inspectors and the Other Entities Involved in the Construction Process Increases the Risk That Districts May Improperly Construct Projects***

The process established to oversee project construction creates an inherent risk that buildings may not comply with approved plans. The Field Act requires that inspectors be responsible to school districts as employees or contractors and to the division as enforcers of building standards. Because project inspectors are responsible to two entities, districts may take advantage of their position as employers to attempt to unduly influence their inspectors. The acting state architect further explained that many districts employ construction managers—whose purpose is to ensure projects finish on time and within budget—who may also attempt to influence inspectors. Several of the regional managers confirmed that school districts or construction managers sometimes interfere with the work of project inspectors.

Because the division relies so heavily on inspectors to ensure proper construction, we believe the possibility that the districts or their construction managers may influence inspectors demands the division's attention. For example, the inspector for one of the projects we reviewed submitted reports in which he indicated that the construction manager had instructed the building contractor not to comply with the architect's instructions to install specified fireproofing materials. The project inspector also stated that the construction manager had directed the architect not to communicate with the project inspectors. The project inspector alleged that the construction manager had violated the Field Act by interfering with the design of the building and with his and the project architect's responsibilities. For another project, we found evidence that a school district prodded an inspector to check the installation of modular school buildings without having division-approved plans on which to base the inspection. After the inspector communicated the problem to both the school district and the division, records we reviewed indicate that the division took issue with the district's constructing facilities in advance of plan approval but did not try to stop the project. The district, acknowledging its liability, went ahead with construction, and the inspector performed his job using plans that had not been approved. In fact, the district completed the project before the division approved the plans and, as of October 2011, this project remained uncertified.

***Because the division relies so heavily on inspectors to ensure proper construction, we believe the possibility that the districts or their construction managers may influence inspectors demands the division's attention.***

The division needs to strengthen its method for combating possible interference with the work of inspectors. Several regional managers said that the best way for the division to ensure that districts or project managers are not inappropriately influencing inspectors is to have field engineers make periodic visits to construction sites. The acting state architect stated that the division's field presence is the only effort the division uses to counteract influence over inspectors. He also said that the division could benefit from developing explicit direction for field staff that would address potential conflicts. However, as explained earlier in this chapter, the division does not have a well-defined process for planning site visits and sometimes cannot demonstrate that it has visited project sites.

***In Violation of Regulations, School Districts Often Start Construction on Projects Before the Division Formally Approves Their Inspectors***

Many school districts proceed with projects before the division approves their inspectors because the districts do not provide the necessary information that would allow approval to occur in a timely manner or at all. Regulations require that school districts submit the names of proposed inspectors for the division's approval at least 10 days before starting construction. Additionally, regulations prohibit construction from proceeding without a division-approved inspector. However, we found that the division had not yet approved inspectors a month or more after districts started construction on 22 out of 34 projects we reviewed. Although 14 of these projects had an approval form on record, because the school districts submitted requests for approval 30 or more days late, the division was not able to approve inspectors before construction started. In fact, for two of the 14 projects, the districts did not submit approval forms until after the division's database indicated the districts had finished construction. Of the eight remaining projects where we noted problems, four had no approval request form on file, and the other four had inspector approval request forms that were either unsigned or undated. Nevertheless, 18 of these 22 projects had semimonthly inspector reports on file, indicating that inspectors had overseen construction.

***We found that the division had not yet approved inspectors a month or more after districts started construction on 22 out of 34 projects we reviewed.***

Because getting the required signatures for the inspector approval request form takes time, the acting state architect stated that field engineers may informally approve inspectors through discussions with school districts and design professionals before the districts submit the form. He also said that field engineers know whether the inspectors are qualified and if their workload will allow them to take on another project for inspection. However, the division does not record its informal approvals in project files, and its



process circumvents the controls put in place by regulations. These controls are intended to allow the division to demonstrate that inspectors are qualified and have sufficient time available to provide ongoing inspection of projects.

We believe the division could take advantage of available resources to make the approval process more efficient instead of circumventing it. The division currently requires that school districts report information on the workload and past experience of proposed inspectors on the approval request form. The division could use its database to create a report of each inspector's current workload and past work experience. Rather than having informal discussions with the school districts, the division could use these reports to determine whether proposed inspectors are qualified and have workloads that allow them sufficient time to perform the work.

***Weaknesses in the Division's Inspector Certification Program Increase the Risk That Inspectors May Not Be Knowledgeable About the Latest Building Standards***

In violation of its policy, the division sometimes excuses inspectors from required trainings, extending the amount of time they can go without receiving training. According to regulations, division certification of an inspector is valid for four years. The Field Act and division policies make renewal of that certification dependent in part on attendance at a division training class. However, inspectors who upgrade their certifications in order to inspect more complex projects restart the four-year certification period upon obtaining the upgrade. In this situation, the division's policy requires inspectors to attend training prior to sitting for an upgrade exam. When the division waives this training requirement, it lets more than the allowed four-year period elapse between trainings. According to the certification unit manager, staff familiar with the building standards will occasionally excuse inspectors from training because the required class has not been updated since the last time they attended the class.

In our review of 21 inspector certifications, we noted one instance in which the division excused an inspector who applied for a certification upgrade from attending required training. The certification unit manager explained that a headquarters staff person familiar with building standards excused this individual from the training. However, when the division ignores upgrade requirements, it may allow some inspectors to go long periods of time without required training. In this instance, the division previously certified this inspector in March 2007 and, because it excused him from a required training in 2009 when it upgraded

*The practice of excusing inspectors from training is problematic because the division has not formalized it and thus, may create the perception that its decisions to excuse certain individuals are arbitrary or show favoritism.*

his certification, it will not require him to attend training again until 2013. The practice of excusing inspectors from training is also problematic because the division has not formalized it. As a result, the division may create the perception that its decisions to excuse certain individuals are arbitrary or show favoritism.

In addition, the division has not always ensured that the inspectors it has certified have passed all parts of the latest certification examination. The Field Act requires that inspectors pass a competency examination in order to receive certification. The division uses a two-part exam to verify an inspector candidate's competence: The first part of the exam focuses on plan reading, and the second part on building codes. The division's policy permits candidates who fail one part but pass the other to take the failed part again while maintaining provisional credit for the part they passed until the division revises the exam. However, after a March 2009 revision to the exam, the division did not immediately invalidate scores from the previous version of the exam for inspector candidates with provisional credit. Instead, it issued a notice that it would invalidate provisional scores from the previous version of the exam in January 2010. Therefore, for nine months the division allowed candidates to obtain certification without passing both parts of the new exam. Further, out of four inspectors we reviewed who were required to pass this two-part exam, one individual passed one part of the certification exam in 2008 and the other part of the exam in 2010. The division certified this individual even though the terms of its exam announcement stated that his 2008 exam score was no longer valid. Although the certification unit manager stated that her staff review applicants' previous exam results to identify any scores that are no longer valid, that process does not appear to have been effective in this case.

Finally, the division has not always clearly documented its verification of an inspector candidate's prior experience. State regulations require that inspectors have at least three years of work experience on projects of a type similar to those they will inspect as division-certified inspectors, and the division's application for inspector examinations requires that candidates provide a description of their related work experience. However, in our review of inspectors, we found three cases out of eight in which the division did not clearly indicate that it had verified the experience of inspector candidates prior to certifying them. In one of these cases, the candidate did not describe any previous experience on his application but the division nonetheless noted that the individual could proceed with certification. According to the certification unit manager, her staff verify the experience of all candidates by calling the candidates' references and making note of these calls on the application. However, in the three cases previously mentioned,

we could not identify any notes or other evidence of this sort of reference check. When the division does not follow its procedures for checking that candidates have the required level of experience, it cannot demonstrate that all inspectors meet the prerequisites for working as project inspectors.

As discussed earlier, inspectors are critical to the division's oversight of school project construction. Without consistently applied policies and controls, the division elevates the risk that some inspectors may lack training, knowledge of building standards, or relevant experience in construction.

***The Lack of an Evaluation Process for Inspectors Increases the Risk That Construction Will Not Comply With Approved Plans***

The division's field engineers have made recommendations for changing the disciplinary process for inspectors. According to a statewide team of field engineers, rigorous construction inspection is a central provision of the Field Act; however, according to the San Diego field team supervisor, inspectors have falsified reports, been absent from job sites, been unable to comprehend construction plans, and failed to communicate with the regional office about their projects. In addition, the Sacramento region provided documents showing that it has removed inspectors from projects for approving deficient concrete and wood framing connections and failing to identify deficient welds. The Sacramento region has also denied approval to inspectors after they failed to turn in required reports on previous projects. In June 2010 the field engineers' statewide team submitted recommendations to division headquarters for improving the disciplinary process for inspectors, including establishing a disciplinary panel and creating a database for field staff to track inspector evaluations statewide. According to the division's certification unit manager, the division has moved slowly on the proposal because of workload and staffing constraints; as a result, this is still a work in progress.

Until recently, the division evaluated inspector performance using a rating form; however, it changed its interpretation of regulations related to inspector performance and discontinued this process in October 2010. According to the acting state architect, before its discontinuance, the division did not use the rating form consistently. Further, he stated that a large volume of Public Records Act requests for inspector evaluations caused the division to spend considerable time notifying inspectors that it would be releasing their evaluations. In turn, the inspectors wanted to review their evaluations. He said that given the consternation the requests caused, the division decided to discontinue using the rating form, pending clarification of its purpose. The division's

*According to the San Diego field team supervisor, inspectors have falsified reports, been absent from job sites, been unable to comprehend construction plans, and failed to communicate with the regional office about their projects.*

latest interpretation of regulations on inspector performance states that it is reviewing its policy on rating inspectors' performance. However, according to the acting state architect, the division has not developed plans to reinstate the use of inspector rating forms as of October 2011.

In the absence of the rating form, the division monitors inspector performance through the field engineers' field trip notes and reviews of inspector reports and other communications. According to the acting state architect, field trip notes are the primary means through which field engineers communicate to the inspector, design professional, and school district those issues that must be remedied. However, he also stated that in cases in which significant issues arise related to inspector performance, field engineers may exclude their concerns from field trip notes and instead either request a meeting with the inspector or contact the design professional or school district directly. In these instances, the division may fail to document issues related to inspectors' performance. Further, as previously noted in this chapter, the division does not consistently ensure that field engineers perform a sufficient number of site visits, where they could observe inspectors at work. Moreover, we found cases where field engineers prepared no field trip notes. As a result, they either may not notice performance issues or may fail to document such issues related to inspectors.

***Without a formal evaluation process, the division risks failing to consistently and adequately address performance issues and it may also be unable to defend its disciplinary actions.***

Without a formal evaluation process, the division risks failing to consistently and adequately address performance issues, and it may also be unable to defend its disciplinary actions. New state regulations in effect since January 2011 outline the steps the division can take to discipline inspectors who are performing poorly, steps that range from requiring them to attend counseling meetings in the regional office to withdrawing their certification. Although it lacks a formal evaluation process, the division has gone forward with disciplinary actions against some inspectors. For example, the Oakland region met with an inspector who, it found, had inspected projects even after the division had rejected his appointment because of workload concerns; he also did not submit semimonthly reports. The inspector subsequently provided written assurances that he would comply with the division's requirements. According to the acting state architect, division field supervisors and field engineers are responsible for monitoring this inspector's future performance to ensure compliance with division requirements. In another example of disciplinary action, the Sacramento regional office has informed inspectors who have not submitted required reports for closed projects that they risk the division not approving them for future projects. According to the Sacramento regional office's field supervisor, his office has held up inspector approvals based on the failure to submit forms. Although the division has disciplined some inspectors, it cannot remove inspectors from

projects or withdraw their certification, as its regulations allow, without providing the inspectors with notice of the reasons for the discipline and an opportunity to appeal the discipline. For this reason, it would be difficult to undertake and sustain such disciplinary actions without adequate documentation of inspectors' poor performance.

### **The Division's Absence of Expertise in Key Construction Disciplines Increases the Risk That It Will Not Adequately Oversee Construction in These Areas**

Although the division reviews plans for school construction projects in three key disciplines, it does not provide a similar level of construction oversight for two of these areas. The division hires specifically trained technical staff to review and approve project plans related to structural safety, fire and life safety, and accessibility. However, it does not employ similar subject matter experts to provide oversight of construction in those same disciplines. Rather, the division employs structural engineers as field staff who focus on structural safety. This approach does not ensure that fire and life safety and accessibility issues receive an equivalent level of oversight during construction. The acting state architect questions whether the division has a statutory obligation to provide oversight of the fire and life safety and accessibility aspects of school construction. However, he also stated that review staff for fire and life safety and accessibility plans are available to the field engineers for consultation.

Nevertheless, the division conducted a field pilot beginning in August 2007 intended to expand its construction oversight to address fire and life safety and accessibility compliance. In addition, the division focused the pilot on adding oversight related to the mechanical, electrical, and plumbing aspects of projects, which are part of the building standards. The pilot grew out of a review by the Department of General Services (department) that recommended employing additional staff to monitor adherence to approved plans and building standards in these three areas. The pilot set criteria of one visit to all sites and monthly visits to projects lasting more than three months, and it estimated that the Sacramento region—where the division carried out the pilot—would require seven additional field staff to meet the expanded scope. In 2007 and 2008 the division undertook the pilot, adding staff to the Sacramento region focused on accessibility; fire and life safety; and the mechanical, electrical, and plumbing aspects of projects. According to the acting state architect, staff submitted the draft report on the pilot—which provided a framework for statewide implementation—to the previous state architect and the four regional managers, but the division undertook no further action related to it. He

*Specifically trained technical staff review and approve project plans related to structural safety, fire and life safety, and accessibility; however, no similar subject matter experts provide oversight of construction in these same disciplines.*

*By not providing adequate oversight of the fire and life safety or accessibility aspects of school construction, the division risks that significant issues related to public safety may not receive the attention they deserve.*

stated that he does not know why the previous state architect did not act on the pilot. He also stated that since the pilot, the division has made no efforts to expand oversight of the fire and life safety or accessibility aspects of construction. By not providing adequate oversight of these facets of school construction, the division risks that significant issues related to public safety may not receive the attention they deserve.

Additionally, according to its administrative services manager, the division conducted update trainings on building standards in November 2010. According to this manager, there were trainings in each of the three key disciplines discussed previously. However, the regional managers reported that their field staff were only required to attend the structural training and not the accessibility or fire and life safety trainings. Further, the manager of the division's training unit explained his unit did not receive training evaluation surveys from all field staff and therefore could not determine if all of them had attended the update training on building standards; the division did not maintain attendance rosters. The administrative services manager explained that regional offices were responsible for ensuring that their staff attended the training. However, without a complete attendance record, the division cannot demonstrate that all field staff attended the building standards training or what aspects of training they received.

### **The Division Lacks Performance Measures for the Construction and Close-out Phases of Projects**

The division has developed performance measures for the plan review phase of projects but has not done so for the construction oversight or close-out phases. The division currently publishes monthly reports on the number of days it takes to assign plans to plan review staff and the number of days it subsequently takes review staff to approve the plans. However, it has not put into place similar measures related to the construction oversight and project close-out phases.

According to the manager of the Performance Metrics Section, the division has not developed performance measures for these phases because it lacks data. However, we identified several statistics that we believe the division could track as useful performance measures, based on data it currently maintains. For example, the division could track and report the number and the percentage of projects that are certified or uncertified when it closes them. Further, if the division were to improve the consistency and reliability of the construction start and end dates in its database, it could measure the length of construction time and the length of time from the



end of construction to project closeout and certification. Also, as discussed previously, regulations require that school districts submit the names of inspectors for approval before construction begins. By tracking the projects that have approved inspectors before the start date of construction, the division could determine whether qualified inspectors are providing continuous inspection of projects.

The division also indicated that it does not have performance measures for the construction oversight and close-out phases because it has less control over processes during these phases. The manager of the Performance Metrics Section stated that during the plan review phase, one employee is normally associated with each project, and the division can track the number of days that a project spends in review. However, he noted that during the construction oversight and close-out phases, the division has less control over the process. During the construction phase, field engineers have multiple projects in different stages of construction to monitor, and during the close-out phase, the division is dependent on school districts, design professionals, and project inspectors to provide required documentation.

We acknowledge that the division's oversight and close-out activities may be more difficult to assess than its plan review process. Nevertheless, performance measures related to actions, such as the number of field visits per project, or to outcomes, such as the rate of projects closed without certification, could help the division identify areas needing improvement and then evaluate its success in making these improvements over time. In fact, the regional offices have developed tools that the division could use statewide to measure performance. For example, in the Oakland, Sacramento, and San Diego regions, field engineers submit travel itineraries for field visits to their field team supervisors, who maintain a record of such visits. The division could use this information to assess whether staff are visiting projects as indicated. Also, the Los Angeles region maintains a record of the different tasks close-out staff complete, such as the number of 90-day and certification letters issued. The division could use these data to assess its efficiency in closing down projects. By not establishing performance measures for construction oversight and project closeout, the division has failed to take advantage of management tools that could give better focus to staff and the organization as a whole. Further, without such measures, it is less able to demonstrate that it is meeting its mission.

*Although the division indicated that it does not have performance measures for the construction oversight and close-out phases because it has less control over processes during these phases, the regional offices have developed tools that the division could use statewide to measure performance.*

**Although Staffing Challenges May Have Contributed to Oversight Problems, the Division Has Not Recently Assessed Its Staffing Needs**

Although the division has not recently assessed its staffing needs, staffing challenges may have contributed to its inconsistent oversight of the construction process. According to division reports, the division has 345 authorized positions, and vacancies divisionwide increased from 25 in July 2010 to 47 in July 2011, or 14 percent. Although not as affected by vacancies as other parts of the division, the construction oversight and project close-out functions of the regional offices have suffered the temporary loss of employees due to long-term leaves of absence, as shown in Table 6. For example, of its nine authorized field positions, Los Angeles had one vacant field engineer position in July 2010 and two missing field engineers due to leaves of absence, a loss of one-third of its field staff. Further, the Los Angeles regional manager retired in September 2011 and, because the division has not appointed a replacement, the regional manager and a project services supervisor from the San Diego region currently each spend two days a week in Los Angeles. As we discussed in Chapter 1, the Los Angeles region had the highest number of active projects and the greatest number of uncertified closed projects in our three-year review period. As of October 2011, the division has requested but not received a formal decision regarding exemptions from a state hiring freeze to fill the vacant oversight and close-out positions.

*Part of the division's oversight challenges may also have stemmed from a recently completed effort to shift 50 percent of regional managers' and field supervisors' time and 40 percent of field engineers' time to plan review.*

Part of the division's oversight challenges may also have stemmed from an effort it recently completed related to plan review. In January 2010 the division took action to reduce the time it was taking to review and approve construction project plans. This effort shifted 50 percent of regional managers' and field supervisors' time and 40 percent of field engineers' time to plan review. To offset this shift, the division entered into an 11-month memorandum of understanding in February 2010 with another division of the department, which provided nine staff to assist the division with construction oversight and close-out activities. Although regional managers stated that this shift affected field oversight, they could not quantify the impact. Because the division does not measure oversight or close-out activities, determining the effect of this shift on the division's output is not possible.

The division never formalized its most recent effort to estimate its staffing needs. According to the division's deputy of operations, the Sacramento field pilot program initiated in 2007 is the only recent effort the division has made to estimate needed staffing levels. As previously mentioned, the pilot established an expected number of visits for each project and recommended adding seven field staff to the Sacramento regional office—where the division conducted the pilot—to cover additional construction disciplines.



**Table 6**  
Division of the State Architect’s Staffing Levels for Field Review and Project Closeout as of July 1, 2011

	POSITION		TOTALS
	FIELD REVIEW	CLOSEOUT	
<b>Oakland</b>			
Authorized	8	5	13
Filled*	8	4	12
Vacant	0	0	0
<b>Sacramento</b>			
Authorized	11	6	17
Filled	11	4	15
Vacant	0	2	2
<b>Los Angeles</b>			
Authorized	9	5	14
Filled*	6	5	11
Vacant	1	0	1
<b>San Diego</b>			
Authorized	7	5	12
Filled*	7	4	11
Vacant	0	0	0
<b>Total authorized</b>	<b>35</b>	<b>21</b>	<b>56</b>
<b>Total filled*</b>	<b>32</b>	<b>17</b>	<b>49</b>
<b>Total vacant</b>	<b>1</b>	<b>2</b>	<b>3</b>

Sources: Division of the State Architect and the 2011–12 Governor’s Budget, Salaries and Wages.

\* One close-out position in Oakland, one in San Diego, and two field review positions in Los Angeles are not counted as filled due to employees’ extended leaves; however, these positions are not vacant.

However, the deputy of operations believes that the staffing levels in this 2008 draft study are not necessarily appropriate for current circumstances, and the acting state architect believes that different classifications from those the pilot put forward would be a better fit. The deputy of operations stated that the division has made no other efforts to assess staffing levels due to hiring freezes and furloughs, which have limited available staff and resources. However, without a current estimate of appropriate staffing levels based on documented workload metrics, the division cannot be certain that it has sufficient staff to provide adequate construction oversight, and it has no justification for requesting additional staff.

## Recommendations

To ensure it is providing adequate oversight of school district construction projects, the division should take the following actions:

- Develop robust procedures for monitoring inspectors' submission of semimonthly reports. The division should also maintain all semimonthly reports in its project files.
- Develop and document an overall strategy that establishes specific expectations for conducting site visits and monitoring construction. The division should then record and compare its actual visits and monitoring efforts to its planned actions. The division should document explanations for any deviations from its plans.
- Establish consistent criteria for entering data into its database on key aspects of projects, such as the dates for the start and end of construction.

To mitigate risks arising from the relationship between inspectors, school districts, and project managers, the division should develop formal procedures and explicit directions for field engineers to ensure that they establish a presence on project sites and provide adequate oversight of inspectors during construction.

To ensure that it approves inspectors prior to the start of project construction, the division should streamline its approval process by reviewing inspectors' workloads and past experience using the data it already maintains.

To ensure that certified inspectors are knowledgeable about current code requirements, the division should not excuse inspectors from required trainings and should improve its process for identifying expired certification exam scores. Further, the division should consistently follow and document its procedures for verifying the past employment of inspector applicants.

To ensure that it formally monitors inspectors' performance, the division should reestablish a process for evaluating inspectors that provides consistent documentation of performance. The division should make this information accessible to appropriate staff.

To address areas in which its staff do not currently have expertise, the division should finalize its field pilot and take subsequent steps to ensure it has qualified staff to provide oversight of accessibility; fire and life safety; and the mechanical, electrical, and plumbing aspects of construction.

To better manage its construction oversight and close-out functions, the division should develop measures to assess those functions and it should periodically report the results to the public on its Web site.

To address possible staffing problems, the division should use documented workload metrics to perform an assessment of its current staffing levels and determine its staffing needs. It should revisit the field pilot and make necessary changes to reflect its understanding of its current staffing situation.

We conducted this audit under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives specified in the scope section of the report. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Respectfully submitted,



ELAINE M. HOWLE, CPA  
State Auditor

Date: December 8, 2011

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For questions regarding the contents of this report, please contact Margarita Fernández, Chief of Public Affairs, at 916.445.0255.

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*(Agency comments provided as text only.)*

State and Consumer Services Agency  
915 Capitol Mall, Suite 200  
Sacramento, CA 95814

**MEMORANDUM**

**TO:** Elaine M. Howle, State Auditor\*  
Bureau of State Audits

**FROM:** Anna M. Caballero, Secretary

**DATE:** November 17, 2011

**RE:** Bureau of State Audit's Report No. 2011-116.1

Pursuant to the Bureau of State Audit's (BSA) Report No. 2011-116.1, enclosed are the Department of General Services' comments pertaining to the results of the audit.

The State and Consumer Services Agency would like to thank the BSA for the comprehensive review of the Division of the State Architect. The results provide us with the opportunity to better serve our clients and protect the public.

*(Signed by: Anna M. Caballero)*

Anna M. Caballero, Secretary  
State and Consumer Services Agency

Enc.

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\* California State Auditor's comments appear on page 53.

*(Agency comments provided as text only.)*

Department of General Services

**MEMORANDUM**

**Date:** November 17, 2011

**To:** Anna M. Caballero, Secretary  
State and Consumer Services Agency  
915 Capitol Mall, Suite 200  
Sacramento, CA 95814

**From:** Fred Klass, Director  
Department of General Services

**Subject:** RESPONSE TO BUREAU OF STATE AUDITS' REPORT NO. 2011-116.1

Thank you for the opportunity to respond to the Bureau of State Audits' (BSA) Report No. 2011-116.1 which addresses recommendations to the Department of General Services' (DGS) Division of the State Architect (Division). The audit focused on the Division's construction oversight and project close-out functions. The following response addresses each of the recommendations.

**OVERVIEW OF THE REPORT**

The DGS has reviewed the findings, conclusions and recommendations presented in Report No. 2011-116.1. The DGS will take appropriate actions to address the BSA's recommendations.

In summary, the BSA accurately reports in Chapter 1 that thousands of school construction projects remain uncertified by the Division. This condition is due in part to provisions of the Field Act which specifically provide that the State does not have the authority to prevent beneficial occupancy by a school district of a facility prior to the issuance of certification of the construction project by the Division. Despite the limitations placed on the Division by the Field Act, the BSA's report identifies a number of steps the Division could take to attempt to increase the number of projects it certifies and to mitigate risks that uncertified projects may pose.

In Chapter 2, the BSA identifies a number of areas of concern with the Division's construction oversight function. As a result, the BSA concluded that the Division has not provided an effective and comprehensive level of oversight of school construction processes.

Upon my appointment as DGS Director in early May 2011, I became aware that thousands of school facilities have been occupied prior to certification that those facilities were constructed in compliance with the Field Act. I also learned of concerns about apparent deficiencies in the Division's oversight of construction projects, including the oversight of project inspectors. Consequently, I immediately initiated an internal review of the Division's operations and procedures governing those activities. The findings noted in the BSA's audit report are consistent with that review. The internal review also includes an action plan to address areas for improvement in the Division's construction oversight and project close-out functions. In conjunction with the findings and action plan of the DGS' internal review, the findings and recommendations of the BSA's audit will be of great assistance in implementing changes that will improve the Division's ability to carry out its mission of ensuring that schools meet the State's seismic, structural safety and accessibility standards.

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The DGS appreciates the BSA's in-depth audit and is fully committed to promptly and completely addressing the issues identified in the audit report. In general, the actions recommended by the BSA have merit and will be promptly addressed.

## RECOMMENDATIONS

### CHAPTER 1

**RECOMMENDATION # 1:** *To ensure public safety and provide public assurance that school districts construct projects in accordance with approved plans, the department, in conjunction with the division, should pursue legislative changes to the Field Act that would prohibit occupancy in cases in which the division has identified significant safety concerns.*

#### DGS RESPONSE # 1:

In its report, the BSA correctly states that the Field Act specifically provides that the State does not have the authority to prevent beneficial occupancy by a school district of a facility prior to the issuance of certification of the construction project by the Division. The DGS shares the BSA's concern that occupancy or use of facilities should not occur if significant code deficiencies have been identified that effect the safety of facility users. Consequently, the DGS will discuss within the Administration the option of pursuing legislation that would change the Field Act to prohibit occupancy in cases in which the Division has identified significant safety concerns.

**RECOMMENDATION # 2:** *To better utilize the enforcement tools at its disposal, the division should continue and expand its use of both orders to comply and stop work orders, as defined in its regulations. The division should also develop performance measures to assess the success of any efforts it makes to address safety concerns and reduce the number of uncertified projects.*

#### DGS RESPONSE # 2:

In the near future, Division headquarters' management will meet with the managers of its four regional offices to discuss the current use of both Orders to Comply and Stop Work Orders. Subsequently, additional policies and procedures will be issued to assist in ensuring the appropriate and consistent use of these enforcement tools as part of the construction project oversight function.

As to the development of performance measures, the Division will task its Performance Metrics Unit with the responsibility for developing metrics to measure the success of the primary actions taken to address safety concerns and reduce the number of uncertified projects. These actions include requiring school districts to complete certification of uncertified projects before granting plan approval of new projects and the use of Orders to Comply and Stop Work Orders during a project's construction.



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**RECOMMENDATION # 3:** *To ensure that it clearly justifies the reasons a project's noted issues merit a particular classification, the division should either modify its current policies regarding classifying types of uncertified projects or develop new policies, including requiring documentation of the rationale behind project-specific classifications. It should use its classifications to prioritize its efforts to follow up on uncertified projects based on risk and to better inform the public regarding the reasons it has not certified projects.*

**DGS RESPONSE # 3:**

The Division will modify or create new policies regarding classifying projects closed without certification, including the rationale behind the specific classification, and the use of letters to notify districts of the reason a project was not certified. Consequently, the Division will use the new process to prioritize its efforts to follow up on uncertified projects based on risk and to better inform the public regarding the reasons it has not certified projects.

**RECOMMENDATION # 4:** *To reduce the number of uncertified projects, the division should implement initiatives to follow up with school districts on uncertified projects. Those initiatives should include, at a minimum, regularly sending each district a list of its uncertified projects and assessing the success of its follow-up efforts.*

**DGS RESPONSE # 4:**

② As noted in the BSA's report, the Division has developed a performance measure that provides for the identification of projects closed without certification and the categorization of those projects by Project Class and school district. The size and complexity of a project will be included as part of the categorization process. Project Class is defined as follows:

- Project Class 1 (non-wood) and Class 2 (wood) are construction of new buildings that house students and staff;
- Project Class 3 is alterations/modernization and miscellaneous construction to existing buildings; and,
- Project Class 4 is site placement of pre-manufactured relocatable school buildings (factory inspected with Division oversight).

It is currently planned that this activity will be completed by June 30, 2012. Consequently, a school district communication and outreach plan will be developed that, at a minimum, includes regularly sending each district a list of its uncertified projects. The success of the Division's outreach efforts in reducing the number of uncertified projects will be tracked and regularly evaluated.

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## CHAPTER 2

**RECOMMENDATION # 1:** *To ensure it is providing adequate oversight of school construction projects, the division should take the following actions:*

- *Develop robust procedures for monitoring inspectors' submission of semimonthly reports. The division should also maintain all semimonthly reports in its project files.*
- *Develop and document an overall strategy that establishes specific expectations for conducting site visits and monitoring construction. The division should then record and compare its actual visits and monitoring efforts to its planned actions. The division should document explanations for any deviations from its plans.*
- *Establish consistent criteria for entering data into its database on key aspects of projects, such as the dates for the start and end of construction.*

### DGS RESPONSE # 1:

The Division will develop additional processes to ensure that inspectors are submitting the semimonthly reports and that received reports are maintained in the project files. As part of this activity, the Division will periodically reemphasize to its field engineers the importance of obtaining the reports. The Division will also determine the feasibility of assigning administrative staff with responsibilities for tracking, obtaining and filing the inspector reports.

Pertaining to conducting site visits and monitoring construction, the Division has implemented a policy which requires that all Project Class 1 and 2 projects be regularly visited by its field engineers, including a face-to-face meeting with project inspectors. Project Class 1 and 2 projects must have at least one documented visit by a field engineer with an overall objective that ongoing projects be visited at four to six week intervals. Currently, the Division is developing a measurement tool and a training program for its field engineers on this process. The training will focus on ensuring that consistent construction oversight is being provided and that project inspector's performance is actively being overseen.

It should be noted that by June 30, 2012, the Division plans that all active Project Class 1 and 2 projects will be visited and meetings held and documented with project inspectors. This metric is included within the Division's 2011/12 fiscal year business plan. After the completion of the activity for Project Class 1 and 2 projects, a similar process will be developed for Project Class 3 and 4 projects.

Finally, the Division will develop standard criteria for entering data into its project management system. This activity will include establishing clear criteria for identifying the start and end dates of construction.

**RECOMMENDATION # 2:** *To mitigate risks arising from the relationship between inspectors, school districts, and project managers, the division should develop formal procedures and explicit direction for field engineers to ensure that they establish a presence on project sites and provide adequate oversight of inspectors during construction.*

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**DGS RESPONSE # 2:**

As discussed above, the Division is developing a training program that focuses on ensuring that consistent construction oversight is being provided by its field engineers. The training will include modules that address overseeing project inspector performance and record keeping during construction.

For future projects, field engineers will be required to conduct face-to-face meetings with project inspectors (including an audit of inspector records) to establish a presence on the project and provide adequate oversight of inspector performance during construction.

**RECOMMENDATION # 3:** *To ensure that it approves inspectors prior to the start of project construction, the division should streamline its approval process by reviewing inspectors' workloads and past experience using the data it already maintains.*

**DGS RESPONSE # 3:**

The Division will evaluate the inspector approval process for activities that could be streamlined to assist in approving inspectors prior to the start of project construction. As part of this evaluation, the Division will determine the feasibility of using existing inspector data on-file to assist in the approval process.

**RECOMMENDATION # 4:** *To ensure that certified inspectors are knowledgeable about current code requirements, the division should not excuse inspectors from required trainings and should improve its process for identifying expired certification exam scores. Further, the division should consistently follow and document its procedures for verifying the past employment of inspector applicants.*

**DGS RESPONSE # 4:**

The Division has tasked its certification unit manager with developing written policies which provide that inspectors must not be excused from required training. Further, the Division will take action to strengthen existing processes regarding identifying expired certified exam scores and maintaining documentation of staff verifying the past employment history of inspector applicants.

**RECOMMENDATION # 5:** *To ensure that it formally monitors inspectors' performance, the division should reestablish a process for evaluating inspectors that provides consistent documentation of performance. The division should make this information accessible to appropriate staff.*

**DGS RESPONSE # 5:**

The Division concurs that a process for evaluating inspector performance is important and should be reestablished as part of the construction oversight program. Consequently, the Division will assign staff to review the prior inspector evaluation process to identify lessons learned and to develop a plan for the completion of performance evaluations by the field engineer at the final site visit.

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**RECOMMENDATION # 6:** *To address areas in which its staff do not currently have expertise, the division should finalize its field pilot and take subsequent steps to ensure it has qualified staff to provide oversight accessibility; fire and life safety; and the mechanical, electrical, and plumbing aspects of construction.*

**DGS RESPONSE # 6:**

The Division will revisit the results of the field pilot and determine the current feasibility of expanding its construction oversight for schools beyond structural safety. The field pilot was conducted during portions of 2007 and 2008 and primarily involved an expansion of construction oversight activities to include accessibility, fire and life safety, and the mechanical, electrical, and plumbing aspects of construction. In late 2008, a draft report discussing the results of the pilot was issued to a prior State Architect. However, the report recommendations were not acted on at that time. (3)

**RECOMMENDATION # 7:** *To better manage its construction oversight and closeout functions, the division should develop measures to assess its construction oversight and closeout efforts and should periodically report the results to the public on its Web site.*

**DGS RESPONSE # 7:**

As previously discussed, the Division has developed performance measures that involve the identification of projects closed without certification and the categorization of those projects by Project Class and school district. Further, the Division has developed a performance metric that involves monitoring that all active Project Class 1 and 2 projects are visited and meetings held and documented with project inspectors by June 30, 2012. (2)

In addition, the Division will task its Performance Measurement Unit with developing additional performance measures and related training for the construction oversight and closeout phases of projects. As part of this process, regional office management will be consulted on existing data that could be tabulated and used as an additional tool to assess the adequacy and effectiveness of the construction oversight and closeout phases. The results of any implemented measurement process will be posted to the Division's Web site. (4)

**RECOMMENDATION # 8:** *To address possible staffing problems, the division should use documented workload metrics to perform an assessment of its current staffing levels and determine its staffing needs. It should revisit the field pilot and make necessary changes to reflect its understanding of its current staffing situation.*

**DGS RESPONSE # 8:**

In the near future, the Division will initiate an assessment of its current staff levels and needs based on available workload metrics. Further, as previously discussed, the Division will revisit the results of the field pilot and determine the current feasibility of expanding its construction oversight for schools beyond structural safety.

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### CONCLUSION

The DGS is firmly committed to effectively and efficiently overseeing the implementation of the Field Act. As part of its continuing efforts to improve this process, the DGS will take appropriate actions to address the issues presented in the report.

If you need further information or assistance on this issue, please contact me at (916) 376-5012.

*(Signed by: Fred Klass)*

Fred Klass, Director  
Department of General Services

## Comments

### CALIFORNIA STATE AUDITOR'S COMMENTS ON THE RESPONSE FROM THE STATE AND CONSUMER SERVICES AGENCY, DEPARTMENT OF GENERAL SERVICES

To provide clarity and perspective, we are commenting on the response to our audit report from the Department of General Services (department). The numbers below correspond to the numbers we placed in the margin of the department's response.

The department first informed the Bureau of State Audits (bureau) of this internal review on November 4, 2011, and provided a draft copy of the review on November 10, 2011.

According to the Division of the State Architect's (division) business plan, this measurement tracks the percentage of projects that the division has managed to categorize. It will not be useful as an ongoing measure of the division's performance. Further, it does not measure the division's efforts to follow up on uncertified projects. However, the department says that an outreach plan will eventually be developed sometime after June 30, 2012 that will measure the success of the division's efforts in reducing the number of uncertified projects.

We appreciate that the department is willing to revisit the field pilot, and look forward to additional information on the division's progress in implementing this recommendation in the department's 60-day, six-month, and one-year responses.

The department asserts that the division has developed a performance metric, but as the department states in Response #1 to Chapter 2 at page 49, the division is currently developing this measurement tool and estimates it will be completed by June 30, 2012.

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cc: Members of the Legislature  
Office of the Lieutenant Governor  
Milton Marks Commission on California  
State  
Government Organization and Economy  
Department of Finance  
Attorney General  
State Controller  
State Treasurer  
Legislative Analyst  
Senate Office of Research  
California Research Bureau  
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