CALIFORNIA STATE AUDITOR

Senate Select Committee on Earthquake and Disaster Preparedness Senator Corbett, Chair

Department of General Services Division of the State Architect

April 20, 2012





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Canyon Middle School, Room D-11 19600 Cull Canyon Road Castro Valley

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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 - 2011-116.1

AUDIT SCOPE

- The Joint Legislative Audit Committee approved an audit of plan review, construction oversight, and project close-out functions at the Department of General Services (General Services), Division of the State Architect (division) because of concerns that the operations of the division may have allowed the construction of unsafe school structures.
- The audit included two phases to address these concerns:
 - Phase One focuses on construction oversight and project close-out functions.
 - Phase Two focuses on plan review functions.
- The State Auditor's Office released its report on Phase One of the audit in December 2011. The report on Phase Two is scheduled to be released in May 2012. This document summarizes findings and recommendations resulting from Phase One of the audit.

BACKGROUND

The Field Act (act) is intended to protect the safety of pupils, teachers, and the public. The act requires General Services to 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 with the building standards in Title 24 of the California Code of Regulations (building standards). General Services delegated this authority to the division. 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.

During construction of a school project two parties are primarily responsible for directly overseeing the construction process for the division: the division's field engineers and project inspectors.

- 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.
- These field engineers occasionally visit construction sites to ensure that school districts perform work according to building code requirements and to supervise project inspectors.
- Project inspectors, employed directly by school districts, are responsible for ensuring that the school districts comply with approved plans and specifications. The division approves inspectors for work on particular projects as requested by school districts.

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.

The 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. Within a 90-day period and 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. However, the division does not have the authority to stop school districts from occupying or using projects even if the projects are uncertified.

Findings

The Field Act Makes It Difficult for the Division to Ensure Construction Projects Comply With Certification Requirements

During fiscal years 2008–09 through 2010–11, the division closed a substantial proportion of projects without certification. Specifically, the division was unable to certify more than 2,000 projects (23 percent) of approximately 8,800 projects that it closed during those three years.

In addition, the division's tracking reports indicate that nearly 16,400 projects with a total estimated cost of over \$17.6 billion remained uncertified as of December 2010.

The 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.

The division has little leverage to ensure that projects meet certification requirements and are safe for public use. It has no authority to penalize districts by denying them the ability to use facilities or by imposing monetary penalties.

The Division Rarely Exercises Its Authority to Stop Work on Projects During Construction

The act 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.

Although the division has the authority to issue orders to comply and to stop work, it has rarely used these tools. During the last three fiscal years, the division issued only 23 orders to comply and six stop work orders.

- Fourteen orders to comply related to situations in which districts moved forward on construction without division approved inspectors.
- Nine orders to comply were related to circumstances in which districts undertook construction without division approved plans or after changing their plans without approval.
- Six stop orders were issued to districts that started construction without division approved plans. None of the stop work orders were due to construction deficiencies.

In each instance, division records indicate that the school districts resolved identified issues.

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.

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

Although the division has a process for classifying uncertified projects with unresolved safety deficiencies, it does not document the basis for those decisions, making it difficult to distinguish between uncertified projects with significant safety deficiencies and those without such deficiencies. For instance, we reviewed 22 uncertified projects and noted projects that appeared to have similar deficiencies that the division had categorized differently.

- For example, we noted that the division classified a project where the design professional had not assessed the pedestrian pathway as having an unresolved safety deficiency, while it classified another project with an incomplete curb ramp as not having an unresolved safety deficiency.

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

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.

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 had started construction had no inspector semimonthly reports on file even though construction on each had lasted between two and 21 months.
- In total, 95 of the 384 required semimonthly reports were missing from the project files we reviewed.

In addition to monitoring inspector reports, the 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.

- To accomplish this additional oversight, 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, the division does not have a process for planning the oversight it
 will perform.
- For example, we found no evidence of a field engineer visit 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.

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 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

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 specially 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.
- 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.

Beginning in August 2007 the division conducted a field pilot to expand its construction oversight to address fire and life safety and accessibility compliance. In addition, staff submitted a draft report, which provided a framework for statewide implementation, but the division undertook no further action related to it.

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

The 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.

In addition, 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.

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 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 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 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 it has moved slowly on this proposal because of workload and staffing constraints.

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.

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.

Key Recommendations

We made several recommendations to General Services and the division. After each recommendation is a summary of General Services' responses based on its 60-day status report on its efforts to implement our audit recommendations.

To ensure public safety and provide public assurance that school districts construct projects in accordance with approved plans, General Services, in conjunction with the division, should pursue legislative changes to the act that would prohibit occupancy in cases in which the division has identified significant safety concerns.

General Services stated that it will discuss within the administration the option of pursuing legislation that would change the act to prohibit occupancy in cases in which the division has identified significant safety concerns.

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.

General Services stated that in the near future, division headquarters' management will meet with the division's regional managers to discuss the use of orders to comply and stop work orders. Subsequent to this, additional policies and procedures will be issued to assist in ensuring the appropriate and consistent use of these enforcement tools. Additionally, 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.

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.

General Services stated that the division is modifying its policies regarding classifying projects closed without certification, including the rationale behind the specific classification. It also stated that 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.

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.

General Services stated that the division plans to finish categorizing projects closed without certification by project class and school district by June 30, 2012. Once this is completed, General Services stated that a communication and outreach plan will include regularly sending each district a list of its uncertified projects and missing documentation and that the division will track and regularly evaluate the success of its outreach efforts.

To ensure it is providing adequate oversight of school district construction projects, the division should develop robust procedures for monitoring inspectors' submission of semimonthly reports. The division should also maintain all semimonthly reports in its project files.

General Services stated that the division is developing administrative resources within existing staffing levels to fulfill responsibilities related to tracking, obtaining, and filing the inspector semimonthly reports.

To ensure it is providing adequate oversight of school district 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.

General Services stated that the division is developing a policy, which requires that field engineers regularly visit projects of a certain size and constructed from specific types of materials and have a face-to-face meeting with project inspectors. The division is developing a measurement tool and training program for its field engineers on this process. The division plans to carry out this policy by June 30, 2012.

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.

General Services stated that the division is developing a training program to ensure that its field engineers provide consistent construction oversight. Training will include modules that address overseeing project inspector performance and record keeping during construction. For future projects, General Services indicated that field engineers will be required to conduct face-to-face meetings with project inspectors to establish a presence on the projects.

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.

General Services stated that the division has assigned a field supervisor to develop tools for field staff to monitor completion of the project inspector's required duties.

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.

General Services stated that 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.

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

General Services stated that the division has tasked its Performance Measurement Unit with developing additional performance measures and related training for the construction oversight and closeout phases of projects. The division also will consult managers in its regional offices on existing data that could be used to assess the adequacy and effectiveness of the construction oversight and closeout phases. General Services stated that the division will explore options for posting performance measurement results on its Web site.