

June 20, 2022

Brian King
Chancellor
Los Rios Community College District
1919 Spanos Court
Sacramento, CA 95825

Dear Brian King:

It has come to the attention of the Division of the State Architect (DSA) that potentially unsafe buildings utilizing concrete "lift slab" construction are, or may be, on one or more campuses within your district. Lift slab systems are characterized by concrete floor and/or roof slabs supported by steel or concrete columns. The slabs were cast on site around the columns, then lifted into place via hydraulic jacks and secured to the columns, usually by welded connections to slab embeds. The approach was typically used for mid- and high-rise buildings but was also used for low-rise buildings and covered walkway structures.

DSA estimates that lift slab systems were employed in the 1950s through early 1970s in the construction of school buildings in California. Although lift slab systems were permitted in accordance with applicable codes at the time, it has since been discovered that they may be inherently dangerous with the potential for catastrophic failure and progressive collapse if the building is subjected to differential movement (vertical or lateral), changes in loading, or alterations to the structure that it was not designed to withstand. Differential movement could occur during an earthquake; changes in loading or alterations to the structure could occur due to work done during a renovation, modernization, or alteration project.

DSA is not aware of any existing school buildings with lift slab construction that have collapsed during a seismic event; however, there have been at least two occasions during demolition where the lift slab system experienced a sudden and unexpected failure that led to a progressive collapse of the entire building within a few seconds. There were no injuries of which DSA is aware, but the nature of the building collapse during demolition indicates structural sensitivity and lack of structural integrity. DSA recommends that lift slab buildings be evaluated to determine any structural sensitivities that put the safety of building occupants in jeopardy.

To assist you in identifying lift slab buildings, DSA has been reviewing drawings in the state archives. If we can review the drawings and verify lift slab construction, the building is added to the "confirmed" list. If we are unable to locate sufficient drawing information but discover

other clues in the project records that lead us to believe it might be a lift slab, the building is added to the “suspected” list.

This review effort is limited to information available in the records we can retrieve. Because of this, there may be lift slab buildings within your district not identified below. As a result of our review to date, we have determined that the following schools in your district have one or more buildings confirmed or suspected to be lift slab construction:

Suspected:

1. American River College

- A# 26784 – Davies Hall (Classroom & Office Building)

Please note that campus names and building descriptions have been gathered from review of records and original construction drawings affiliated with the noted project A# in the state archives (to the extent they are available) and may not represent the current campus name or building name or use. DSA attempted to verify current campus names by internet search but was unable to confirm current building names/uses before sending this notice.

This review effort began in April 2022 and is ongoing. The effort involves screening and categorizing more than 26,000 projects and then working to locate the archived drawings to review, and confirm or disprove, lift slab construction. If we identify additional sites/buildings within your district as we continue our review, we will provide you with an updated notification.

Lift slab buildings, depending upon their details of construction, may or may not have been included in the list of “Category 2” buildings and building types created because of Education Code Section 17317. As defined by the November 15, 2002, report, “Seismic Safety Inventory of California Public Schools” (commonly referred to as the “AB300 report”), Category 2 consists of “...those building types that are not expected to perform as well in future earthquakes as Category 1 building types and that require detailed seismic evaluation to determine if they can be expected to achieve life-safety performance.”

It is DSA’s opinion that lift slab buildings meet the description of Category 2 buildings; therefore, DSA recommends that districts hire a California licensed structural engineer to evaluate these buildings to assess their vulnerability to progressive collapse. Furthermore, DSA recommends that a district-wide survey of all campuses be conducted by a California licensed structural engineer to identify buildings that may pose a seismic risk and assist the district in prioritizing necessary action. A more detailed seismic evaluation, and possibly retrofit design or replacement of identified buildings should be undertaken in order of priority.

Buildings identified as posing a risk to life-safety during a seismic event may qualify for funding assistance under the School Facility Program administered by the Office of Public School Construction (OPSC) through the Facility Hardship Seismic Mitigation Program. Furthermore,

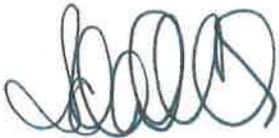
DIVISION OF THE STATE ARCHITECT

the California Department of Education (CDE) has also been informed of this issue and will endeavor to assist districts in addressing the issues this guidance might present.

DSA encourages you to work with your facilities staff and design professionals to assess and evaluate the confirmed or suspected lift slab buildings in your district, in addition to the other Category 2 type buildings that may be in your district, so that you take immediate and appropriate action.

DSA is available to assist you in this effort or guide you to appropriate resources and expertise. Should you have questions please contact your local DSA Regional Office Manager or Diane Gould, Principal Structural Engineer at (916) 324-6959 or diane.gould@dgs.ca.gov.

Sincerely,



Ida Antonioli Clair, AIA
State Architect

CC:

Dan McKechnie, Facilities Director
Tami Nelson, School Board President