
REHABILITATION REQUIRED BY COST: 2022 CAC

Disciplines: Structural**History:** Revised 07/24/24 Under 2022 CAC
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PURPOSE

This Interpretation of Regulations (IR) clarifies how DSA determines when a rehabilitation, as defined in California Administrative Code (CAC) Section 4-314, is required to an existing certified school building in accordance with CAC Sections 4-306 and 4-309(c), Item 1. CAC Section 4-309(c), Item 1 addresses the case when the cost of a reconstruction, alteration, or addition of an existing building exceeds 50 percent of its replacement value. This clarification is intended to promote consistent implementation and enforcement of the project cost versus replacement value comparison, referred to as the “cost comparison” throughout this IR.

SCOPE

This IR is applicable to projects with scope including reconstruction, alteration, addition, or any combination thereof to one or more certified existing school buildings.

This IR is not applicable to reconstruction projects for the repair of fire damage in accordance with the Exception given in CAC Section 4-309(a). See *IR EB-1: Existing Building Regulations Overview* for additional information. This IR does not address conditions requiring rehabilitation per CAC Section 4-309(c), Items 2 or 3 when the project cost is less than 50 percent of the replacement value and scope of work thresholds are exceeded, which is addressed in *IR EB-5: Rehabilitation Required by Scope*. Similarly, this IR does not address voluntary upgrades to the lateral force resisting system of an existing building as defined in CAC Section 4-309(d).

BACKGROUND

The CAC contains numerous provisions addressing new construction work in existing certified school buildings, which is generally categorized as reconstruction, alteration, or addition. When certain characteristics of such projects exceed the thresholds defined in CAC Section 4-309(c), a rehabilitation of the existing building is required.

CAC Section 4-306 defines the requirements of rehabilitation projects of existing certified school buildings. CAC Section 4-307 defines the requirements of rehabilitation projects of non-conforming buildings being converted into school buildings; the cost threshold discussed in this IR is not applicable to the conversion of nonconforming buildings.

The rehabilitation requirement of CAC Section 4-309(c), Item 1 intends to ensure that when significant financial investment is made to alter or otherwise modernize an existing school building, corresponding safety standards are also addressed. Compliance with current safety standards is measured by the comprehensive building evaluation required of a rehabilitation.

Frequently used terms are defined in the Glossary below.

REHABILITATION REQUIRED BY COST: 2022 CAC**1. GENERAL REQUIREMENTS****1.1 Cost Comparison by Building**

The term “project” is frequently used in reference to construction work performed in multiple existing buildings under a single application number. However, the cost comparison shall be made separately for each individual building. Therefore, the term “project cost” used throughout this IR refers specifically to costs associated with each existing building separately.

1.1.1 Costs associated with the work to each existing building shall be detailed separately in cost estimates, bids, or final actual cost statements used for the purpose of the cost comparison. General project costs (e.g., general conditions, overhead, profit, insurance, etc.) shall be allocated to each building in accordance with the building’s relative percentage of the overall direct construction costs. Site work is not considered a “general project cost” for this determination but is treated as a separate cost entity similar to another building.

1.1.2 Replacement value for the cost comparison shall be determined for a representative building of the same size as the existing building subject to the proposed reconstruction, alteration, and/or addition and is based upon the current cost of construction appropriate to the region where the building is located. Refer to Section 3 below for additional information on replacement value.

1.1.3 Existing buildings on many school campuses have historically been constructed with interconnecting exterior covered walkways. Such existing covered walkways commonly consist of light frame construction with or without columns and often do not include building separation details as required by current seismic code provisions. Existing covered walkways of this nature shall not be used to combine otherwise separate buildings for the purpose of the cost comparison required by CAC Section 4-309(c), Item 1. When there is doubt concerning the distinction of separate buildings, the district or design team should meet with the DSA regional office to which the project will be submitted to obtain concurrence.

1.2 Division of Projects

In accordance with CAC Section 4-309, school construction projects shall not be subdivided for the purpose of evading cost limitations, including the rehabilitation required by cost. As such, the cost of any previous reconstruction, alteration, and/or addition project completed no more than three years prior to the submittal date of the proposed project must be included with the project cost defined in Section 2 below.

1.3 Project Types

The terms reconstruction, alteration, and addition are used in the CAC to categorize project types and associated requirements. In practice, a single project may include multiple scopes of work that could be described by these same terms. For example, a project might be said to include reconstruction of water damage in one location, a 1,200 square foot addition at the opposite end, and alterations to classrooms in between. The project cost and corresponding cost comparison for this building as described in Section 2 below consists of the sum of all three of these work scopes.

1.4 Additions

The definition of addition in CAC Section 4-314 includes both “structurally attached” and “structurally detached” construction. The cost comparison required by CAC Section 4-309(c), Item 1 applies to an addition, even when it is an independent structure detached from the existing building with a code compliant seismic separation joint. Refer to IR EB-1 Section 4 for further information on additions.

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The project cost used in the cost comparison is outlined in CAC Section 4-322 and includes all costs associated with the reconstruction, alteration, and/or addition to the existing building, except as specifically amended by CAC Section 4-309(c). The project cost shall represent the current cost of construction appropriate to the region where the building is located.

2.1 Included Costs

Project costs consist of those costs associated with the work defined on the plans and specifications including all items normally considered to be covered in the contractor's bid or fee such as general conditions, overhead, profit, labor and materials, bond, and insurance. This includes but is not limited to the following scope items:

2.1.1 Demolition.

2.1.2 Permanent equipment.

2.1.3 Finishes.

2.1.4 Maintenance items.

2.1.5 Voluntary lateral force-resisting system modifications to buildings designated by a geologic hazard report as being located within 50 feet of the trace of an active fault.

2.1.6 Subgrade preparation of the building pad.

2.1.7 Fees paid to construction managers for performance of construction work in accordance with CAC Section 4-322. Refer also to *IR A-3: Construction Management Services for Public School Projects*.

2.2 Excluded Costs

The following scope items may be excluded from the determination of project cost for the purpose of the cost comparison:

2.2.1 Air-conditioning equipment and insulation material costs. For purposes of this provision, air-conditioning equipment includes heating, ventilation and air-conditioning (HVAC): air conditioning units, heating units, or ventilation units. The cost of ductwork or utility services (i.e., electrical and/or gas service) to the equipment shall not be excluded.

2.2.1.1 Installation costs for the work of Section 2.2.1 above may also be excluded.

2.2.1.2 Costs of removing and replacing finishes required to accomplish the work of Section 2.2.1 above shall not be excluded.

2.2.2 Voluntary lateral force-resisting system modifications (inclusive of costs to remove and replace finishes required to accomplish the upgrade) other than the case defined in Section 2.1.5 above.

2.2.3 Furniture and furnishings.

2.2.4 Site work beyond five feet from the footprint of the building.

2.2.5 Fees paid to DSA per CAC Article 4.

2.2.6 Fees paid to architects, engineers, or others for design services.

2.2.7 Fees paid for inspection and testing services.

2.3 Project Cost Types

During the course of a project the cost is determined by different means, which yield differing degrees of certainty. Some common means of determining cost are described as follows and

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are used to meet the reporting requirements in Section 4 below.

2.3.1 Cost Estimate

As outlined in CAC Section 4-317(f) an estimate of cost is required for submission of a project application to DSA. Cost estimates are typically commissioned by the school district and prepared by a professional familiar with the latest construction cost trends in the geographical region of the project. The estimated cost used in the cost comparison should include bid and construction contingencies to guard against unforeseen increases that could result in the bid or final cost exceeding 50 percent of the replacement value.

2.3.2 Contractor's Bid

After a project is approved by DSA, a competitive bidding process typically follows with the participation of multiple prospective general contractors. The winning bid forms the basis of the construction contract and generally includes the items outlined in CAC Section 4-322.

2.3.3 Final Actual Cost

As described in CAC Sections 4-322 and 4-339, the final actual project cost is determined upon completion of construction and is used in the project certification process. This cost is documented on form *DSA 168: Statement of Final Actual Project Cost and Instructions* and includes adjustments made to the bid price during the course of construction (i.e., change orders, contingency funds spent, etc.).

3. REPLACEMENT VALUE

The replacement value of the existing building used in the cost comparison represents the funds required to construct a new building of the same size, configuration, materials, systems, quality of finishes, amenities, and intended use. The representative replacement building would be constructed in the same location and comply with the current California Building Code (CBC).

The replacement value shall not be escalated for projected increases in construction cost over time but shall be considered in current dollars.

The replacement value shall be determined in accordance with Section 3.1 or 3.2 below. If the school district takes exception to the replacement value determined by the default valuation, an alternative replacement value may be proposed based on Section 3.3 or 3.4 below. Justification of the alternative value is the responsibility of the school district and shall be submitted to DSA at the time of project registration. The proposed value will be reviewed by a DSA supervising architect, supervising structural engineer, or regional manager, who may require a meeting with the school district and their design team. The alternative replacement value shall not be used unless accepted in writing by DSA.

3.1 Default Valuation for K-12 Public School Projects

The default replacement value shall be determined based on the cost of school construction in California as established by the Office of Public School Construction (OPSC). For its use in the dispensation of School Facility Program (SFP) Grants, the State Allocation Board of OPSC has adopted construction cost values based on the RS Means Construction Cost Index, including current replacement costs. These values are given on a cost per square foot basis and are adjusted annually at the State Allocation Board's January meeting.

3.1.1 OPSC adopted construction cost values for 2024 are as follows:

3.1.1.1 Typical Construction: \$514 per square foot.

3.1.1.2 Toilet Room Construction: \$927 per square foot.

3.1.1.2.1 The replacement value for each building subject to reconstruction or alteration shall

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be the cost per square foot established by OPSC multiplied by the total square footage of the existing building as defined in the Glossary below.

3.1.1.2.2 The replacement value for each building subject to an addition shall be the cost per square foot established by OPSC multiplied by the total square footage of the existing building alone as defined in the Glossary below, excluding the square footage of the proposed addition.

3.1.1.2.3 Where the existing building contains bathrooms, shower rooms and/or locker rooms, the cost listed in Section 3.1.1.2 above is permitted to be applied to the square footage of those spaces only. The cost listed in Section 3.1.1.1 above shall be applied to the square footage of all other spaces of the building.

3.2 Default Valuation for Community College Projects

The replacement value shall be determined based on the construction cost values used by the California Community Colleges Chancellor's Office. These cost values are differentiated by room type and are available to community college districts and their design professionals through the online application FUSION. The cost per square foot values can be accessed by selecting the "Admin" tab on the banner of the FUSION home page, then selecting the "Manage System Codes" from the available modules, and finally selecting "Cost Guidelines" from the resulting sub-banner. Information will display in a tabular format with the cost per gross square footage listed in the eighth column titled "Cost/GSF".

DSA will also accept the OPSC basis of replacement value determined in accordance with Section 3.1 above for community college projects.

3.2.1 The replacement value for each building subject to reconstruction or alteration shall be determined based on the square footage as defined in the Glossary below of the existing building in accordance with Section 3.2.3 below.

3.2.2 The replacement value for each building subject to an addition shall be determined based on the square footage of the existing building alone as defined in the Glossary below, excluding the square footage of the proposed addition, in accordance with Section 3.2.3 below.

3.2.3 The replacement value shall be determined using the cost per gross square foot values in the community college table identified in Section 3.2 above as follows:

3.2.3.1 Based on its current program, the existing building use shall be distributed on a percentage basis into categories defined in the table. Any support space (e.g., halls, stairs, etc.) or other use not identified in the table shall be distributed proportionately to defined categories such that the total of all categories sums to 100 percent.

3.2.3.2 An effective replacement value cost shall be determined by multiplying each use percentage by the applicable cost per gross square foot from the table and summing the total. While the table contains multiple columns of cost data, the values shall be taken from the only column presenting the costs in terms of gross square footage (GSF).

3.2.3.3 The replacement value of the existing building shall be determined by multiplying the effective cost defined in Section 3.2.3.2 above and the square footage defined in Section 3.2.1 or 3.2.2 above.

3.3 Alternative Valuation A

The replacement value shall be established on the basis of final actual project costs as documented on form DSA 168 for similar completed new construction. This valuation method must be coordinated with Sections 3.5 and 3.6 below.

3.3.1 Similar buildings from a minimum of three projects completed within the past 10 years are required. Buildings meeting the following criteria are considered similar for the purpose of this valuation method.

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3.3.1.1 Similar buildings shall have been constructed in the same geographical region as the proposed project as defined by locations within a 100 mile radius of the site.

Exception: For proposed projects located in remote regions of the state, the radius defining the geographical region may be increased at the discretion of the DSA regional office to which the project will be submitted.

3.3.1.2 Similar buildings shall be no less than 50 percent and no more than 200 percent of the gross square footage of the existing building subject to replacement.

3.3.1.3 When the replacement building is a single-story structure, the similar buildings used to establish its value shall also be single story.

3.3.1.4 Similar buildings shall serve the same campus function and be of the same occupancy as the existing building subject to replacement.

3.3.1.5 Similar buildings shall have been constructed using the same or similar construction type and building systems as the existing building subject to replacement.

3.3.1.6 Similar buildings shall have been constructed with the same or similar quality of finishes and amenities as the existing building subject to replacement.

3.3.1.7 Similar buildings with unique site conditions requiring soil improvements, deep foundations, geologic hazard remediation, or other special site construction measures shall not be used unless it is demonstrated the replacement building would require the same.

3.3.2 The school district or their design professional shall collect and present to DSA all documentation necessary to establish the replacement value of the existing building.

3.3.2.1 A narrative of each similar building used to establish the replacement value shall be provided including a description of the building, number of stories, construction type, finishes, lateral force resisting system, foundation type, and square footage.

3.3.2.2 Final actual project costs taken from form DSA 168 shall be converted into a cost per square foot for use in determination of the replacement value of the existing building.

3.3.2.3 The cost of excluded items defined in section 3.6 below shall be removed.

3.3.2.4 Where the project(s) of the similar building(s) had more than one inspection card (i.e., form *DSA 152: Project Inspection Card*), adjustment is required to allocate the final cost between multiple buildings and site work. In such cases, the school district or their design professional shall propose and obtain DSA concurrence of an acceptable methodology for allocating the applicable portion of the total project cost from the form DSA 168 to the similar building used to establish the replacement value. Original cost estimates, bid documents, and/or the schedule of values accompanying progress payment requests may be useful resources in determining cost allocation to the similar building.

3.4 Alternative Valuation B

The replacement value shall be established on the basis of an independent cost estimate for a new building as follows. This valuation method must be coordinated with Sections 3.5 and 3.6 below.

3.4.1 The cost estimate shall be submitted to DSA with a completed [Replacement Value Cost Estimate Template \(MasterFormat\)](#) or [Replacement Value Cost Estimate Template \(Uniformat II\)](#) that includes a Level 2 summary. DSA may require validation of costs and/or quantities listed in the Level 2 summary; therefore, it is recommended that a Level 3 and 4 detail also be provided to substantiate the values reported in the Level 2 summary. The cost estimate with completed template shall be submitted as a single PDF file, along with the corresponding XLSX source file.

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3.4.2 The cost estimate shall use the original construction documents of the building subject to the proposed reconstruction, alteration, and/or addition as amended below. The cost estimate report shall provide a detailed breakdown of quantities, material, labor and all other associated costs as defined in Section 3.5 below.

3.4.2.1 If the original construction documents are not available, as-built documents shall be prepared by the design team and serve as the basis of the cost estimate.

3.4.2.2 Where the existing building employs materials or systems that are no longer available or common in current construction practice, the cost estimate shall be based upon a substitution of comparable quality and performance as proposed by the design team and accepted by DSA. All such substitutions shall be clearly documented in the cost estimate report.

3.4.2.3 Where the construction of the existing building would not comply with current code requirements, including those that were not in effect at the time of the original construction, the design basis of the cost estimate may be modified as directed by the design team and accepted by DSA. All such design modifications shall be clearly documented in the cost estimate report.

3.4.3 The cost estimate, including Alternative Valuation B Template, shall be performed by a licensed general contractor or professional construction cost estimator knowledgeable of the local construction economy.

3.4.4 DSA reserves the right to require a peer review of the cost estimate. The peer review shall be performed by a cost estimator contracted by DSA.

3.5 Included Value

Replacement value includes costs associated with the construction work such as general conditions, overhead, profit, labor and materials, bond, and insurance. The following scope items are included in the replacement value. The default valuation in accordance with Section 3.1 or 3.2 above already includes these items, and therefore shall not be adjusted.

3.5.1 Permanent equipment.

3.5.2 Finishes.

3.5.3 Maintenance items.

3.5.4 Subgrade preparation of building pad.

3.6 Excluded Value

The following scope items shall be excluded from the determination of replacement value for the purpose of the cost comparison. The default valuation in accordance with Section 3.1 or 3.2 above already excludes these items and does not require adjustment.

3.6.1 Demolition of the existing building.

3.6.2 Site work beyond five feet from the footprint of the building.

3.6.3 Fees paid to DSA per CAC Article 4.

3.6.4 Fees paid to architects, engineers, or others for design services.

3.6.5 Fees paid for inspection and testing services.

4. REPORTING REQUIREMENTS

All projects whose scope of work includes a reconstruction, alteration, or addition shall provide a cost comparison specific to each affected existing school building with submission of the project application. When DSA determines the project cost provided at submission has sufficient uncertainty to warrant further verification, one or more additional cost comparisons will be required.

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In accordance with form *DSA 3: Project Submittal Checklist*, Part 4, Section B, the cost comparison justification shall be submitted for each existing building subject to reconstruction, alteration, and/or addition. The design professional shall provide the information needed for the cost comparison, both the project cost estimate and the replacement value of the existing building, at project submission.

4.1.1 Project cost shall be determined in accordance with Section 2 above and based on the estimated cost per Section 2.3.1 above.

4.1.2 The replacement value shall be determined based on the default valuation of Section 3.1 or 3.2 above or one of the alternative valuation methods of Section 3.3 or 3.4 above if agreed to in writing by DSA prior to the project submission.

4.1.3 For small projects whose cost is far from approaching the 50 percent replacement value threshold, the cost comparison is expected to consist of a simple comparison of the project cost and the default valuation of Section 3.1 or 3.2 above. This comparison can be presented in the project's structural calculations or otherwise as simple written correspondence from the design professional.

4.2 Award of Construction Contract

Should the cost comparison provided by Section 4.1 above yield a cost less than but sufficiently close to 50 percent of the replacement value, DSA may determine further verification is warranted. Uncertainties in estimated costs and other variables will be considered to determine when further verification is necessary. In such cases, DSA will require a second cost comparison be submitted for the designated existing building(s) with the form *DSA 102-IC: Construction Start Notice/Inspection Card Request*.

4.2.1 Project cost shall be determined in accordance with Section 2 above based on the successful bid per Section 2.3.2 above. The DSA-approved construction documents shall require the bids to include a breakdown of cost by building to facilitate this cost comparison. If the project is delivered by a contractual method that does not include bidding, the design-build or similarly responsible entity shall define the project cost by building at this phase.

4.2.2 The replacement value shall be the same as used in the original cost comparison per Section 4.1.2 above.

4.2.3 Should the second cost comparison conclude that the project cost for reconstruction, alteration, and/or addition to any existing school building exceeds 50 percent of the replacement value, options available to the school district to achieve compliance with CAC Section 4-309(c) include the following:

4.2.3.1 All or a portion of the work in the building(s) where rehabilitation is required may be removed from the project scope. The design professional shall prepare and submit to DSA for review an Addendum or Revision (as dictated by the status of the construction contract) to remove the scope of work as required. DSA will not issue inspection cards (form DSA 152) for the project until the Addendum or Revision is approved by DSA.

4.2.3.2 The construction documents may be revised by Addendum or Revision to include the rehabilitation of the building(s) as required. Construction of the affected building(s) must be postponed by the school district to allow time for the design, review and approval of the rehabilitation scope. DSA will not issue inspection cards (form DSA 152) for the affected building(s) until the Addendum or Revision is approved by DSA.

4.2.3.3 Other project-specific options may be approved by the DSA regional office to reconcile the previously unforeseen rehabilitation requirement at this stage in the project. The school

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district and their design team should meet immediately with a DSA supervising architect, supervising structural engineer, or regional manager to discuss any proposed alternate means of compliance.

4.3 During Construction

Should the cost comparison provided in Section 4.2 above yield a cost less than but sufficiently close to 50 percent of the replacement value, DSA may require cost comparison updates throughout the construction phase. If at any point the project cost is projected to exceed 50 percent of the replacement value, DSA may issue a stop work order in accordance with *IR A-13: Stop Work and Order to Comply*.

4.4 Construction Completion

Should the cost comparison provided by Section 4.2 or 4.3 above yield a cost less than but sufficiently close to 50 percent of the replacement value, DSA may again determine further verification is warranted. Uncertainty in the extent of cost changes during construction (e.g., change orders) will be considered to determine when further verification is necessary. In such cases, DSA will require a final cost comparison be submitted for the designated existing building(s) with the form DSA 168.

4.4.1 Project cost shall be determined in accordance with Section 2 above and based on the final actual project cost per Section 2.3.3. In such cases, the form DSA 168 shall be appended with supplemental information defining the breakdown of cost by building to facilitate this comparison.

4.4.2 The replacement value shall be the same as used in the original cost comparison per Section 4.1.2 above.

4.4.3 Should the final cost comparison conclude that the project cost for reconstruction, alteration, and/or addition to any existing school building exceeds 50 percentage of the replacement value, certification of the project will be withheld by DSA. Rehabilitation of the subject school building(s) is required under a separate application number. Certification of the original reconstruction, alteration, and/or addition project will be contingent upon certification of the rehabilitation project.

4.4.4 In lieu of Section 4.4.3 above, other project-specific options may be approved by the DSA regional office to reconcile the previously unforeseen rehabilitation requirement at this stage in the project. The school district and their design team should meet immediately with a DSA supervising architect, supervising structural engineer, or regional manager to discuss any proposed alternate means of compliance.

REFERENCES:

2022 California Code of Regulations (CCR) Title 24

Part 1: California Administrative Code (CAC), Sections 4-306, 4-307, 4-309, 4-314, 4-317, 4-322, 4-339, Article 4

Part 2: California Building Code (CBC), Section 202.

This IR is intended for use by DSA staff and by design professionals to promote statewide consistency for review and approval of plans and specifications as well as construction oversight of projects within the jurisdiction of DSA, which includes State of California public schools (K–12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

This IR is subject to revision at any time. Please check DSA's website for currently effective IRs. Only IRs listed on the webpage at www.dgs.ca.gov/dsa/publications at the time of project application submittal to DSA are considered applicable.

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GLOSSARY

Addition

As defined in CAC Section 4-314. For the purposes of this IR, the concept of “sharing use” as contained in the definition shall be taken to mean any configuration that allows the user internal passage from the existing building to the addition (or vice versa) without travelling outside.

Alteration

As defined in CAC Section 4-314.

Certified Building

As defined in CAC Section 4-314.

Furniture and Furnishings

Articles or building accessories that are not specified and defined on the construction documents. Such items are often owner-supplied and sometimes owner-installed.

Reconstruction

As defined in CAC Section 4-314.

Square Footage

For the determination of replacement value determined in accordance with Section 3.1, 3.2, or 3.3 above, the enclosed building area measured from the outside face of the exterior walls. This differs from the definition of Gross Floor Area in CBC Section 202 and that used in the Alternative Valuation B Template.