
CONVERSION OF NONCONFORMING BUILDING

Disciplines: All

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PURPOSE

This Interpretation of Regulations (IR) clarifies and summarizes code regulations and procedural requirements applicable to the conversion of a building not designed and constructed under DSA jurisdiction to use as a school building. This accumulation of conversion project requirements intends to assist school districts and their design teams in project planning and scheduling.

SCOPE

This IR is applicable to projects that propose conversion of a nonconforming building to use as a school building. Nonconforming in this context is as defined in California Administrative Code (CAC) Section 4-314 and refers to any building that was designed and constructed outside of DSA oversight as established by the Field Act or the alternate Community College provisions.

This IR is not applicable to construction work proposed in an existing building previously certified by DSA as a school building. Refer to *IR EB-1: Existing Building Regulations Overview* for additional information on projects in existing school buildings.

BACKGROUND

The conversion of a nonconforming building to use as a school building is addressed in CAC Section 4-307. This regulation requires the existing building undergo a rehabilitation, which is defined in CAC Section 4-314 as an evaluation and resulting construction work to “bring the building, or portion thereof, into conformance with the safety standards of the currently effective regulations”.

A rehabilitation required to convert a nonconforming building requires consideration of all building systems, some of which may not require extensive evaluation in the rehabilitation of an existing school building. In this respect, a rehabilitation undertaken to convert a nonconforming building to a school building may be more exhaustive than the rehabilitation of a comparable existing school building. Upon completion of the conversion project, the resulting building will be defined as a school building in accordance with CAC Section 4-314.

1. GENERAL

As described in the SCOPE Section above, “nonconforming building” as used in this IR refers to any building that was not subject to DSA oversight of its design (i.e., plan review and approval) and construction. Nonconforming buildings thus defined are often permitted under the authority of another jurisdiction, such as the local city or county building department.

The more common circumstance requiring conversion of a nonconforming building occurs when a school district purchases an existing building. However, a school district may already own a nonconforming building that requires conversion to be repurposed or made compliant for use as a school building. The requirements summarized in this IR apply to both cases.

CONVERSION OF NONCONFORMING BUILDING

1.1 New Building Equivalency

In accordance with CAC Section 4-307(a) the conversion of a nonconforming building is treated as the equivalent of the design and construction of a new building. This general principle informs the interpretations summarized in this IR.

1.2 New School Sites

In accordance with CAC Section 4-307(b), if the nonconforming building is not currently located on a school site, its conversion results in the creation of a new school site.

1.2.1 Refer to Section 6 below for access compliance site requirements.

1.2.2 Refer to Section 7 below for fire and life safety site requirements.

1.2.3 In accordance with CAC Section 4-310, measures are required with respect to other buildings on the new school site that are not subject to the conversion including, but not necessarily limited to, the following:

1.2.3.1 Signage is required to identify those buildings not converted to school buildings.

1.2.3.2 The school board is required to pass and provide to DSA a resolution concerning building access and usage.

1.2.4 In accordance with California Existing Building Code (CEBC) Section 323.2, structural retrofit work may be required to the other buildings on a site that not subject to the conversion as follows:

1.2.4.1 Per CEBC Section 323.2 Item #2, retrofit to protect occupants from falling hazards.

1.2.4.2 Per CEBC Section 323.2 Item #3, retrofit to protect egress paths.

1.3 Project Cost and Fees

In accordance with CAC Section 4-322, the project cost used to determine DSA fees shall include the current replacement cost of the existing building. Refer to *IR EB-4: Rehabilitation Required by Cost* for methods to determine replacement value.

1.4 Building Acquisition

As previously noted, a conversion project is frequently initiated by the acquisition of an existing building by a school district.

1.4.1 As part of their due diligence in the acquisition process, the school district is advised to consult a team of design professionals familiar with the regulations associated with the conversion of a nonconforming building as summarized in this IR.

1.4.2 The school district may proceed with some of the steps outlined in this document prior to finalizing the purchase of the nonconforming building.

1.4.3 CAC Section 4-317(e) prohibits the rehabilitation of an existing building located within 50 feet of the trace of an active fault. As such, a building so located cannot be converted into use as a school building. School districts are advised to ensure this condition does not exist prior to completing the purchase of any building intended to be used as a future school building. For this purpose, the school district may benefit from obtaining the geohazard report per Section 1.6 below prior to acquiring the nonconforming building.

CONVERSION OF NONCONFORMING BUILDING

1.5 Preapplication Meeting

The school district and its design team are encouraged to engage DSA early in the design of the conversion project by scheduling a preapplication meeting with the regional office responsible for plan review and construction oversight of the project. This meeting should precede and inform the development of the Evaluation and Design Criteria Report (EDCR) per Section 2.1 below. Refer to the following form appropriate to the applicable office:

1.5.1 Form *DSA 91: Pre-Application Meeting Request Oakland Regional Office*.

1.5.2 Form *DSA 92: Pre-Application Meeting Request Sacramento Regional Office*.

1.5.3 Form *DSA 93: Pre-Application Meeting Request Los Angeles Regional Office*.

1.5.4 Form *DSA 94: Pre-Application Meeting Request San Diego Regional Office*.

1.6 Geohazard Report

A geohazard evaluation and report is generally required for the conversion of a nonconforming building. This requirement is derived from the equivalency of the conversion project to the construction of a new building per Section 1.1 above. The geohazard report is further required by CAC Section 4-317(e) where a new school site is created as described in Section 1.2 above. In accordance with *IR A-4: Geohazard Report Requirements*, the geohazard report shall be reviewed and accepted by the California Geological Survey (CGS).

1.7 Schedule Considerations

As described in greater detail in Section 2 below, the rehabilitation required for the conversion of a nonconforming building brings with it certain procedural requirements that should be accounted for in the overall project schedule. The following steps must be completed prior to the project being submitted to DSA:

1.7.1 An EDCR is submitted to, reviewed, and approved by DSA. See Section 2.1 below.

1.7.2 A data collection program is planned, implemented, and summarized in a report(s) submitted with the project submission to DSA. See Section 2.4 below.

2. REHABILITATION REQUIREMENTS

CAC Section 4-307(a) requires each nonconforming building converted for use as a school building to undergo a rehabilitation as defined therein and in CAC Section 4-314. Structural safety rehabilitation requirements are summarized in this section; refer to Sections 6 and 7 below for access compliance and fire and life safety requirements, respectively.

2.1 Evaluation and Design Criteria Report

In accordance with CAC Section 4-307(c), the rehabilitation requires submission and approval of an EDCR. Refer to *IR EB-3: Evaluation and Design Criteria Report* for additional information on EDCR requirements. The approval of an EDCR by DSA follows procedural requirements similar to that of a construction project, including registration, review, back check, and approval. See IR EB-3 Section 1.1 for further details.

2.2 Gravity Force-Resisting System

As noted in IR EB-3 Section 2.1, the rehabilitation of an existing school building often does not require detailed evaluation of the gravity force-resisting system based on the general constancy of current safety standards with those typically in place at the time of the original construction. However, in the conversion of a nonconforming building, DSA has not previously reviewed and approved the design of the structure resisting gravity loads. In accordance with Section 1.1 above, the structural engineer of the rehabilitation project shall provide justification of the gravity force-resisting system in its entirety. See also Section 3.3.2 below.

CONVERSION OF NONCONFORMING BUILDING

2.3 Seismic Design Criteria

In accordance with CAC Section 4-307(a), the seismic compliance portion of the rehabilitation shall comply with CEBC Sections 317 through 323. Three seismic design criteria options are available within these provisions for the rehabilitation as follows:

2.3.1 Prescriptive criteria as described in IR EB-3 Section 3.3.

2.3.2 Performance-based criteria as described in IR EB-3 Section 3.4.

2.3.3 Prior recent code-based criteria as permitted by CEBC Section 319.1, Exception 2.

2.4 Data Collection

In accordance with CAC Section 4-307(c) and CEBC Section 319.2, the rehabilitation requires data collection as defined by ASCE 41 and described in IR EB-3. Data collection thus defined consists of both a material testing program and a condition assessment program, and per CEBC Section 319.2, Item 3, “comprehensive” data collection is required.

2.4.1 Material testing program requirements are summarized in IR EB-3 Section 6. Per CEBC Section 319.2, test records from the quality assurance program of the original construction may be used to meet the material testing program requirements in full or in part.

2.4.2 Condition assessment program requirements are summarized in IR EB-3 Section 7.

3. SUBMISSION REQUIREMENTS

In accordance with Section 1.1 above the submission requirements for the conversion of a nonconforming building are generally the same as those for a new building, except as noted in this section. Refer to form *DSA 3: Project Submittal Checklist*.

3.1 Existing Construction

All reasonable efforts should be exhausted to obtain the original construction documents of the nonconforming building. Refer to IR EB-3 Section 1.4. When available, the original construction documents shall be submitted to DSA as supporting documents in accordance with *Procedure (PR) 18-04: Electronic Plan Review for Design Professionals*.

3.1.1 Per CEBC Section 319.2, when the original construction documents are not available, the design team shall prepare and submit “as-built” drawings to detail the existing construction.

3.1.2 Beyond the construction documents, the project submission should include all available geotechnical reports, engineering reports, engineering calculations, testing reports, inspection reports, and any other similar documents found to be informative and valuable in understanding the original design and construction of the existing building.

3.2 Construction Documents

In accordance with CAC Section 4-317, the conversion of a nonconforming building requires DSA approval of plans and specifications. Unlike typical project documents that are generally focused on the new work to be performed, the approved drawings and specifications must define both the existing construction and the new work in sufficient detail that the entire building could theoretically be reconstructed from them alone. This level of detail is required to document DSA approval of the conversion equivalent to a new building per Section 1.1 above.

3.2.1 Submission of the original construction documents per Section 3.1 above without modification does not fulfill this requirement. The original construction documents may serve as the basis of the construction documents for the conversion project, but the latter must clearly differentiate between existing construction and new work required by the rehabilitation.

CONVERSION OF NONCONFORMING BUILDING

3.2.2 The construction documents for the conversion project shall be stamped and signed by the design professional in general responsible charge and any design professionals with delegated responsibility. Refer to *IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents* for additional information.

3.2.2.1 The construction documents for the conversion project shall not bear the same design professionals' stamp and signature (i.e., architect and engineers) as they appear on the original construction documents.

3.2.2.2 Any design professional responsible for both the original building design and the rehabilitation design shall restamp and resign the construction documents for the conversion project.

3.3 Structural Calculations

In accordance with CAC Section 4-317(d), structural calculations shall be provided to validate the conversion of a nonconforming building. Structural calculations shall be provided to substantiate the following:

3.3.1 Rehabilitation design in accordance with Section 2 above.

3.3.2 Existing structure that does not require rehabilitation, including the gravity force-resisting system. Any exclusions to this requirement must be documented and approved by DSA in the EDCR.

3.3.3 Support, anchorage, and bracing of new nonstructural components and distribution systems.

3.3.4 Support, anchorage, and bracing of existing nonstructural components and distribution systems. Any exclusions to this requirement must be documented and approved by DSA in the EDCR.

4. NONSTRUCTURAL COMPONENTS

In accordance with CAC Section 4-307(a), the conversion of a nonconforming building for use as a school building involves bringing it into compliance with all safety standards of Title 24, the California Code of Regulations (CCR). The rehabilitation is, therefore, not limited to the structural systems of the building, but also applies to the support, anchorage, and bracing of nonstructural components and distribution systems.

4.1 Existing Nonstructural Systems

Existing nonstructural systems that will remain in the converted school building are subject to a complete evaluation and substantiation or retrofit as dictated by the evaluation. In the consideration of seismic force effects, two different evaluation criteria are available as described in IR EB-3 Section 3.5.

4.1.1 The original construction documents of a nonconforming building designed and constructed under another jurisdiction may not contain all information necessary to substantiate the support, anchorage, or bracing of nonstructural systems. In such cases, a more detailed and thorough condition assessment program is necessary to document the existing construction.

4.1.2 In some cases, even a more thorough condition assessment program may be unable to determine by nondestructive means all the information required to substantiate an existing system. For example, without documentation it is not possible to visually observe the embedment depth of concrete anchors, commonly used in the anchorage of nonstructural systems. In these cases, in-situ testing may be permitted with DSA approval to substantiate aspects of the existing system in accordance with California Building Code (CBC) Section 1708A and Section 5.1 or 5.3 below.

CONVERSION OF NONCONFORMING BUILDING

4.2 New Nonstructural Systems

As part of the scope of the conversion project, some existing nonstructural systems may be removed and replaced, and additional systems may be required for the converted use. The support, anchorage, and bracing of new nonstructural components and distribution systems shall be designed to comply with code regulations for new construction in effect at the time of the conversion project. In the consideration of seismic force effects, this includes compliance with Chapter 13 of the American Society of Civil Engineers Standard 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE 7), as modified by CBC Section 1617A.

5. TESTING AND INSPECTION

The testing of materials and inspection of construction takes multiple forms in the conversion of a nonconforming building to use as a school building. The three primary cases are summarized and differentiated in this section.

5.1 Data Collection

Because the conversion project involves the rehabilitation of the existing building, data collection relative to the seismic performance of the building is required per CEBC Section 319.2. Refer to Section 2.4 above. Data collection includes both material testing and condition assessment programs that are performed during the design phase of the project. These programs are exploratory by nature with results serving as the basis of design for the seismic force resisting portion of the rehabilitation.

5.2 Rehabilitation Quality Assurance

Like any project under DSA jurisdiction, new construction work associated with the rehabilitation of the existing building is subject to the testing and inspection requirements of CBC Chapter 17A and other applicable material chapters. This quality assurance program involves a project inspector, testing laboratory, and special inspectors as applicable. These tests and inspections are specified on the form *DSA 103: List of Required Structural Tests and Special Inspections*, performed during the construction phase of the project, and validate the new construction work.

5.3 Post Construction Inspection Program (PCIP)

Unique to a conversion project and other special cases, a Post Construction Inspection Program (PCIP) serves to account for and validate construction that was performed outside of the construction oversight program required of projects under DSA jurisdiction. The PCIP is performed by the same parties identified in Section 5.2 above and similarly occurs during the construction phase of the project. Contrary to the typical testing and inspection program, however, the PCIP applies to existing materials and construction.

5.3.1 The scope of the PCIP shall be defined in detail on the construction documents and the form DSA 103 and may include material testing in addition to inspection. The scope shall be reviewed and approved jointly by the DSA structural safety plan reviewer and the DSA field engineer who will oversee the rehabilitation project.

5.3.2 The extent of the PCIP scope will be dictated in part by the age of the existing building and may be informed by data collection previously performed per Section 5.1 above.

5.3.3 The extent of the PCIP scope may be offset, in part or in full, by available documentation of quality assurance testing and inspection performed during the construction of the existing building. For this consideration, all original testing reports, inspection reports, and similar documents should be included as supporting documents with the project submission.

CONVERSION OF NONCONFORMING BUILDING

6. ACCESS COMPLIANCE

For accessibility purposes, nonconforming buildings are considered new buildings and shall be brought into compliance with the edition of the CCR, Title 24 under which the conversion project is submitted. This section is not applicable to facilities that are for student housing and that do not contain any educational programming functions.

6.1 Project Information

6.1.1 Project submission shall document both existing compliant elements that are to remain and noncompliant elements that are to be brought into compliance as part of the scope of work of the project.

6.1.2 Because the project is considered new construction, CBC Section 11B-202 does not apply. This includes provisions in CBC Section 11B-202.3 for technical infeasibility and CBC Section 11B-202.4, which limits required upgrades when the project valuation is below the adjusted construction cost or provides unreasonable hardship exceptions for projects over the adjusted construction cost. Rooms, spaces, and elements required to be accessible under CBC Chapter 11B must be compliant with the current edition of the CBC as if the facilities were newly constructed.

7. FIRE AND LIFE SAFETY

For fire and life safety purposes, nonconforming buildings are considered new buildings and shall be brought into compliance with the edition of CCR, Title 24 under which the conversion project is submitted.

7.1 Project Information

7.1.1 Project submission shall include a completed form *DSA 810: Fire and Life Safety Site Conditions Submittal*.

7.1.2 Construction drawings for the conversion of a nonconforming building shall include a building code analysis reflecting, but not limited to, type of construction, building height and number of stories, allowable area calculations, identification of proposed occupancy classification(s), and identification of installed fire protection and life safety systems.

7.1.3 Construction drawings shall include a dedicated fire access (information) site plan reflecting the location of fire apparatus access roads, and fire hydrants proximal to the project site.

7.2 Emergency Vehicle Access

Fire apparatus access roads (i.e., fire lanes) complying with Section 503 of the California Fire Code (CFC) shall be provided for all buildings and extend to within 150 feet of all portions of building exterior walls as measured by an approved route around the exterior of the building.

7.3 Water Supply for Fire Protection

7.3.1 An approved water supply capable of supplying the minimum required fire flow as determined by CFC Appendix BB shall be provided.

7.3.2 Where a portion of the building is more than 400 feet from a fire hydrant located on an approved fire apparatus access road, as measured by an approved route around the exterior of the building, on-site fire hydrants and supply mains shall be provided.

REFERENCES:

2022 California Code of Regulations (CCR) Title 24

Part 1: California Administrative Code (CAC), Sections 4-307, 4-310, 4-314, 4-317.

Part 2: California Building Code (CBC), Section 1617A, Chapter 17A, Section 1708A.

Part 10: California Existing Building Code (CEBC), Sections 317 – 323, 319.1, 319.2, 323.2.

CONVERSION OF NONCONFORMING BUILDING

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.