

**FINAL EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE CALIFORNIA BUILDING STANDARDS COMMISSION
REGARDING THE 2025 CALIFORNIA GREEN BUILDING STANDARDS CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11
(BSC 03/25)**

The state agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

LEGEND for EXPRESS TERMS (California only codes - Parts 1, 6, 8, 11, 12)

- Existing California amendments appear upright
- Amended or new California amendments appear underlined
- Repealed California language appears ~~upright and in strikeout~~
- Ellipses (...) indicate existing text remains unchanged

FINAL EXPRESS TERMS

**ITEM 1
CHAPTER 2 DEFINITIONS
SECTION 202—DEFINITIONS**

SUB-ITEM 1-1

ENERGY COMMISSION. The California Energy Commission or the California State Energy Resources Conservation and Development Commission.

SUB-ITEM 1-2

[Withdrawn]

Notation:

Authority: Health & Safety Code Sections 18930.5

Reference(s): Health & Safety Code Sections 18930.5

ITEM 2

CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES

SECTION 5.105—DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES

SUB-ITEM 2-1

5.105.1 ~~Scope. Reserved.~~

~~[BSC-CG] Effective July 1, 2024, alteration(s) to existing building(s) where the combined altered floor area is 100,000 square feet or greater shall comply with either Section 5.105.2, 5.409.2, or 5.409.3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 100,000 square feet or greater shall comply with either Section 5.105.2, Section 5.409.2, or Section 5.409.3. Effective January 1, 2026, the combined floor area shall be 50,000 square feet or greater.~~

[The following exception is moved to Section 5.409.] **Exception [BSC-CG]:** Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section 5.105.2.

SUB-ITEM 2-2

5.105.2 Reuse of existing building. For reuse of existing buildings embodied carbon reduction requirements see Section 5.409. [The following provisions are moved to Section 5.409.] ~~An alteration or addition to an existing building shall maintain at a minimum 45 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.~~

~~**5.105.2.1 Verification of compliance.** Documentation shall be provided in the construction documents to demonstrate compliance with Section 5.105.2.~~

~~**Note:** Sample Worksheet WS-3 in Chapter 8 may be used to assist in documenting compliance with this section.~~

...

Notation:

Authority: Health and Safety Code Sections 18930.5 and 18931(c).

Reference(s): Health and Safety Code Sections 18930.5 and 18931(c).

ITEM 3

CHAPTER 5, SECTION 5.106.4.1 BICYCLE PARKING with subsections

SUB-ITEM 3-1

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

[Relocated from Section 5.106.4.1.2 below] Calculations for bicycle parking requirements shall be rounded up to the nearest whole number.

5.106.4.1.1 Short-term bicycle parking. ...

5.106.4.1.2 Long-term bicycle parking. Acceptable bicycle parking facility for Sections 5.106.4.1.2.1, 5.106.4.1.2.2 and 5.106.4.1.2.3 shall be conveniently located near the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

~~Calculations for bicycle parking requirements shall be rounded up to the nearest whole number.~~

Notation:

Authority: Health & Safety Code Sections 18930.5 and 18944.19.

Reference(s): Health & Safety Code Sections 18930.5 and 18944.19.

ITEM 4

CHAPTER 5, SECTION 5.106.5 ELECTRIC VEHICLE (EV) CHARGING

SUB-ITEM 4-1

5.106.5.3 Electric vehicle (EV) charging. [N] [BSC-CG] ~~Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 EV capable spaces, Section 5.106.5.3.2 Electric vehicle charging stations and associated Table 5.106.5.3.1, or Section 5.106.5.3.6 Electric vehicle charging stations (EVCS) — Power allocation method and associated Table 5.106.5.3.6, and shall be provided in accordance with regulations in the *California Building Code* and the *California Electrical Code*.~~ Newly constructed nonresidential buildings shall be provided with electric vehicle infrastructure to facilitate electric vehicle charging in accordance with Sections 5.106.5.3.1 and 5.106.5.3.2 and associated Table 5.106.5.3.1, or independently, Section 5.106.5.3.6 and associated Table 5.106.5.3.6. Electric vehicle supply equipment (EVSE) shall comply with the *California Electrical Code*.

SUB-ITEM 4-2

5.106.5.3.3 Use of automatic load management systems (ALMS). ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum ~~30 amperes~~ 6.2kW to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

SUB-ITEM 4-3

5.106.5.4 Additions or alterations to existing buildings or parking facilities. [A] [BSC-CG] Existing buildings or parking facilities being modified by in accordance with one of the following, shall comply with Section 5.106.5.4.1 or 5.106.5.4.2. [Move the following language to new Section 5.106.5.4.3] When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3.

1. When the scope of construction work includes an increase in power supply to an electric service panel as part of a parking facility addition or alteration.
2. When a new photovoltaic system is installed covering existing parking spaces. Only parking spaces physically covered by the new photovoltaic system panels shall count toward the EV charging requirements.
3. When additions or alterations to existing buildings are triggered pursuant to code Section 301.3 and the scope of work includes an increase in power supply to an electric service panel.

5.106.5.4.1 ...

5.106.5.4.2 ...

5.106.5.4.3 Accessible electric vehicle charging station (EVCS). [Relocated from Section 5.106.5.4 above] When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3.

Notation:

Authority: Health & Safety Code Sections 18930.5 and 18941.10.

Reference(s): Health & Safety Code Sections 18930.5 and 18941.10.

ITEM 5

CHAPTER 5, SECTION 5.304—OUTDOOR WATER USE

SUB-ITEM 5-1

5.304.2 Reserved-Nonfunctional Turf. [BSC-CG]

Note: On or after January 1, 2027, the use of potable water for the irrigation of nonfunctional turf located on certain commercial, industrial, and institutional

properties, as specified in Water Code (WAT) Section 10608.14, shall be prohibited. See WAT Sections 10608.12 for related definitions and 10608.14 for affected types of property, effective dates, duties and responsibilities for ensuring compliance.

Notation:

Authority: Health and Safety Code Section 18930.5.

Reference(s): Health and Safety Code Section 18930.5 and Water Code Sections 10608.12 and 10608.14.

ITEM 6

CHAPTER 5, SECTION 5.402—DEFINITIONS

SUB-ITEM 6-1

[Withdrawn]

ITEM 7

CHAPTER 5, SECTION 5.407— WATER RESISTANCE AND MOISTURE MANAGEMENT

SUB-ITEM 7-1

5.407.1 Reserved. Weather protection. ~~Provide a weather-resistant exterior wall and foundation envelope as required by *California Building Code* Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.~~

Notation:

Authority: Health and Safety Code Section 18930.5 and 18931(c).

Reference(s): Health and Safety Code Sections 18930.5 and 18931(c).

ITEM 8

CHAPTER 5, SECTION 5.408—CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

SUB-ITEM 8-1

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plan that meets all of the following criteria:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-

site (source-separated) or bulk mixed (single stream).

3. Identifies diversion facilities where construction and demolition waste material collected will be taken.

Note: Carpet waste diversion facility locations and information are available on the CalRecycle Carpet Materials Management webpage at <https://calrecycle.ca.gov/carpet/>.

4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

Notation:

Authority: Health and Safety Code Section 18930.5.

Reference(s): Health and Safety Code Section 18930.5.

ITEM 9

CHAPTER 5, SECTION 5.409—LIFE CYCLE ASSESSMENT (renamed to EMBODIED CARBON REDUCTION)

SUB-ITEM 9-1

SECTION 5.409 LIFE CYCLE ASSESSMENT EMBODIED CARBON REDUCTION

5.409.1 Scope [BSC-CG] ~~Effective July 1, 2024, projects~~ Projects consisting of newly constructed building(s) with a combined floor area of ~~100,000~~ 50,000 square feet or greater shall comply with either Section ~~5.409.2~~ 5.409.3, or Section ~~5.409.3~~ 5.409.4. Alteration(s) to existing building(s) where the combined altered floor area is ~~100,000~~ 50,000 square feet or greater shall comply with either Section ~~5.105.2, 5.409.2, or 5.409.3~~ 5.409.2, 5.409.3, or 5.409.4. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is ~~100,000~~ 50,000 square feet or greater shall comply with either Section ~~5.409.2, 5.409.3, or 5.409.4~~ 5.105.2, Section 5.409.2, or Section 5.409.3. ~~Effective January 1, 2026, the combined floor area 50,000 square feet or greater.~~

[The following exception is moved from Section 5.105.1.] **Exception [BSC-CG]:** Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section ~~5.105.2~~ 5.409.2.

SUB-ITEM 9-2

~~5.105.2~~ 5.409.2 Reuse of existing building option. An alteration or addition to an existing building shall maintain at a minimum 45 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosures (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.

~~5.105.2.1~~ **5.409.2.1 Verification of compliance.** Documentation shall be provided in the construction documents to demonstrate compliance with Section ~~5.105.2~~ **5.409.2**.

Note: Sample Worksheet WS-3 in Chapter 8 may be used to assist in documenting compliance with this section.

SUB-ITEM 9-3

5.409.3 Product GWP compliance - prescriptive path option. Each product that is permanently installed and listed in Table 5.409.3 shall not exceed the maximum GWP value specified in Table 5.409.3 and shall have a Type III environmental product declaration (EPD), either product-specific or factory-specific.

~~5.409.3.1~~ Products shall not exceed the maximum GWP value specified in Table 5.409.3.

SUB-ITEM 9-4

Exceptions:

1. Previously used building materials or products that have been salvaged and then reused without substantial modification of their form are not required to have a Type III EPD and shall have a GWP of zero. Such materials shall be minimally processed only, such as cleaning, repairing, resurfacing and resizing.

SUB-ITEM 9-5

2. Concrete may be considered one product category to meet compliance with this section. Concrete mixes may be considered as a A-weighted average of the maximum GWP for all concrete mixes installed in the project. The weighted average maximum GWP shall be less than the weighted average maximum GWP allowed per Table 5.409.3 using Exception 2 Equation 5.409.3.4. Calculations shall be performed with consistent units of measurement for the material quantity and the GWP value. For the purposes of this exception, industry-wide EPDs are acceptable.

Exception 2 EQUATION 5.409.3.4

$$GWP_n < GWP_{allowed}$$

where

$$GWP_n = \sum (GWP_n)(v_n)$$

and

$$GWP_{allowed} = \sum (GWP_{allowed})(v_n)$$

and

n = each concrete mix installed in the project

GWP_n = the GWP for concrete mix n per concrete mix EPD, in kg CO₂e/m³

$GWP_{allowed}$ = the GWP potential allowed for concrete mix n per Table

5.409.3

v_n = the volume of concrete mix n installed in the project, in m^3

SUB-ITEM 9-6

**TABLE 5.409.3
PRODUCT GWP LIMITS**

Buy Clean California Materials Product Category ¹	Maximum acceptable GWP value (unfabricated) (GWP _{allowed})	Unit of Measurement
...	...	...
Flat glass	2.50	kg CO₂e/MT MT CO ₂ e/MT
...	...	...

Concrete, Ready-Mixed ^{2,31}

Concrete Product Category	Maximum GWP allowed value (GWP _{allowed})	Unit of Measurement
...	...	...

Concrete, Lightweight Ready-Mixed ²

Concrete Product Category	Maximum GWP allowed value (GWP _{allowed})	Unit of Measurement
...	...	...

SUB-ITEM 9-7

TABLE 5.409.3 Footnotes

- ~~The GWP values of the products listed in Table 5.409.3 are based on 175 percent of Buy Clean California Act (BCCA) GWP values, except for concrete products which are not included in the BCCA.~~
- ~~For concrete, 175 percent of the National Ready Mixed Concrete Association (NRMCA) 2022 version 3 Pacific Southwest regional benchmark values are used for the GWP allowed, except for High Early Strength.~~
- ~~Concrete High Early Strength ready-mixed shall be calculated at 130 percent of the ready-mixed concrete GWP allowed values for each product category.~~

SUB-ITEM 9-8

5.409.3.21 Verification of compliance. Calculations to demonstrate compliance, Type III EPDs for products required to comply, if included in the project, and

Worksheet WS-5 signed by the design professional of record shall be provided on the construction documents. Updated EPDs for products used in construction shall be provided to the owner at the close of construction and to the enforcement entity upon request. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.

SUB-ITEM 9-9

5.409.2-5.409.4 Whole building life cycle assessment – performance option.

Projects shall conduct a cradle-to-grave whole building life cycle assessment performed in accordance with ISO 14040 and ISO 14044, excluding operating energy, and demonstrating a minimum 10-percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and geographic location that meets the requirements of the *California Energy Code* currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO 14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931 and/or EN 15978. The software tools and data sets shall be the same for evaluation of both the baseline building and the proposed building.

Notes:

1. ...
2. ...
3. In addition to the required documentation specified in Section 5.409.24.3, Worksheet WS-9 may be required by the enforcing entity to demonstrate compliance with the requirements.

5.409.24.1 Building components. Building enclosure components included in the assessment shall be limited to glazing assemblies, insulation, and exterior finishes. Primary and secondary structural members included in the assessment shall be limited to footings and foundations, ~~and~~ structural columns, beams, walls, roofs, and floors.

5.409.24.2 Reference study period. The reference study period of the proposed building shall be equal to the reference baseline building and shall be 60 years.

5.409.24.3 Verification of compliance. A summary of the GWP analysis produced by the software and Worksheet WS-4 signed by the design professional of record shall be provided in the construction documents as documentation of compliance. A copy of the whole building life cycle assessment which includes the GWP analysis produced by the software, in addition to maintenance and training information, shall be included in the operation and maintenance manual and shall be provided to the owner at the close of construction. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the

enforcing agency.

Notation:

Authority: Health & Safety Code Sections 18930.5

Reference(s): Health & Safety Code Sections 18930.5

ITEM 10

CHAPTER 8 COMPLIANCE FORMS, WORKSHEETS AND REFERENCE MATERIAL

SUB-ITEM 10-1

WORKSHEET (WS-3)

Section 5.409.2 REUSE OF EXISTING BUILDING OPTION REUSE

DOCUMENTATION OF COMPLIANCE OF EXISTING BUILDING REUSE

Area of Existing Building(s) _____ SF

Area of Aggregate Addition(s) (if applicable) _____ SF

	EXISTING TOTAL AREA(A)	RETAINED TOTAL AREA(B)	% OF RETAINED STRUCTURE (B)/(A)
Primary Structural Elements of Existing Building(s) (foundations; columns, beams, walls, and floors; and lateral elements)	_____ SF	_____ SF	_____ SF%
Building Enclosure of Existing Building(s) (roof framing, wall framing and exterior finishes only)	_____ SF	_____ SF	_____ SF%

Total % Reuse of Required Elements $\geq$ 45% _____ %

SUB-ITEM 10-2

WORKSHEET (WS-4)

**Section 5.409.2 5.409.4 WHOLE BUILDING LIFE CYCLE ASSESSMENT _
PERFORMANCE OPTION**

Responsible Designer's Declaration Statement:

I attest that the Whole Building Life Cycle Analysis has been performed according to the requirements of Section 5.409.2 5.409.4 and has met the minimum 10 percent reduction in global warming potential as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and geographic location that meets the requirements of the *California Energy Code* currently in effect. Furthermore, I will ensure during construction that the material specifications will be reviewed for substantial conformance with the life cycle assessment indicated on the approved plans so at the close of construction the minimum 10 percent reduction in global warming potential is thereby secured.

...

SUB-ITEM 10-3

WORKSHEET (WS-5)

Section 5.409.3 PRODUCT GWP COMPLIANCE – PRESCRIPTIVE-PATH OPTION

Responsible Designer's Declaration Statement:

I attest that each product listed in Table 5.409.3 and intended to be permanently installed complies with prescriptive compliance ~~has been performed according to the requirements of Section 5.409.3 and does not exceed the maximum~~ products have met the minimum 10 percent reduction in global warming potential (GWP) value as specified in Table 5.409.3. Furthermore, I will ensure during construction that any the material specifications substitution will be reviewed for substantial conformance with the requirements of Section 5.409.3 global warming potential limits indicated on the approved plans so at the close of construction compliance with the maximum GWP values the minimum 10 percent reduction in global warming potential is thereby secured.

...

SUB-ITEM 10-4

WORKSHEET (WS-6) [BSC-CG]

Section ~~A5.105.2~~ A5.409.2 REUSE OF EXISTING BUILDING REUSE TIER 1 AND TIER 2

DOCUMENTATION OF COMPLIANCE OF EXISTING BUILDING REUSE

Area of Existing Building(s) _____ SF

Area of Aggregate Addition(s) (if applicable) _____ SF

...

SUB-ITEM 10-5

WORKSHEET (WS-7) [BSC-CG]

Section ~~A5.409.2~~ A5.409.4 WHOLE BUILDING LIFE CYCLE ASSESSMENT _ PERFORMANCE OPTION

Responsible Designer's Declaration Statement:

I attest that the Whole Building Life Cycle Analysis has been performed according to the requirements of Section ~~A5.409.2~~ A5.409.4 and has met the minimum 15 percent (Tier 1) or 20 percent (Tier 2) reduction in global warming potential as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and geographic location that meets the requirements of the *California Energy Code* currently in effect.

Furthermore, I will ensure during construction that the material specifications will be reviewed for substantial conformance with the life cycle assessment indicated on the approved plans so at the close of construction the minimum reduction in global warming potential is thereby secured.

...

**SUB-ITEM 10-6
WORKSHEET (WS-8)**

WORKSHEET (WS-8) [BSC-CG]

Section A5.409.3 PRODUCT GWP COMPLIANCE—PRESCRIPTIVE PATH OPTION

Designer's Declaration Statement:

I attest that each product listed in Table A5.409.3 and intended to be permanently installed complies with prescriptive compliance has been performed according to the requirements of Section A5.409.3 and products have met does not exceed the maximum acceptable global warming potential (GWP) value for the products listed specified in Table A5.409.3 for either Tier 1 or Tier 2. Furthermore, I will ensure during construction that any material specification substitution will be reviewed for substantial conformance with the requirements of Section A5.409.3 so at the close of construction compliance with the maximum GWP values the minimum 15 percent reduction in global warming potential is thereby secured.

...

SUB-ITEM 10-7

WORKSHEET (WS-9)

**Section 5.409.42 and Section A5.409.42 WHOLE BUILDING LIFE CYCLE
ASSESSMENT – PERFORMANCE OPTION**

...

Notation:

Authority: Health and Safety Code Sections 18930.5 and 18931(c).

Reference(s): Health and Safety Code Sections 18930.5 and 18931(c).

ITEM 11

APPENDIX A5 NONRESIDENTIAL VOLUNTARY MEASURES

SECTION A5.105—DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES

SUB-ITEM 11-1

A5.105.1 Reserved. Scope. ~~Projects with the area limits specified shall comply with Section A5.105.2 to achieve Tier 1 or Tier 2 compliance.~~

- ~~1. Alteration(s) to existing building(s) where the combined altered floor area is 50,000 square feet or greater shall comply with either Section A5.105.2, Section A5.409.2, or Section A5.409.3.~~
- ~~2. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 50,000 square feet or greater shall comply with either Section A5.105.2, Section A5.409.2, or Section A5.409.3~~

Exception: ~~Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section A5.105.2.~~

- ~~3. Alteration(s) to existing building(s) where the aggregate floor area is less than 50,000 square feet shall comply with either Section 5.105.2, Section 5.409.2 or Section 5.409.3 for Tier 1 compliance, and either Section A5.105.2.1, Section A5.409.2.1, or A5.409.3 Tier 1 requirements for Tier 2 compliance.~~
- ~~4. Addition(s) to an existing building where the total floor area combined with the existing building(s) is less than 50,000 square feet shall comply with either Section 5.105.2, Section 5.409.2 or Section 5.409.3 for Tier 1 compliance, and either Section A5.105.2.1, Section A5.409.2.1, or A5.409.3 Tier 1 requirements for Tier 2 compliance.~~

~~**Exception:** Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section 5.105.2 or Section A5.105.2.~~

SUB-ITEM 11-2

A5.105.2 Reuse of existing building. For reuse of existing buildings embodied carbon reduction requirements see Section A5.409. [The following provisions are moved to Section A5.409.2.] Projects that include the reuse of an existing building shall meet the minimum requirements of Section A5.105.2.

~~**A5.105.2.1 Tier 1:** An alteration or addition to an existing building shall maintain at least 75 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.~~

~~**A5.105.2.2 Tier 2:** An alteration or addition to an existing building shall maintain at least 75 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). In addition, an alteration to an existing building shall maintain 30% of existing interior nonstructural elements (interior walls, doors, floor coverings, ceiling systems). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.~~

~~**A5.105.2.3 Verification of compliance.** Documentation shall be provided in the construction documents to demonstrate compliance with Section A5.105.2.~~

~~**Note:** Sample Worksheet WS-6 in Chapter 8 may be used to assist in documenting compliance with this section.~~

...

Notation:

Authority: Health and Safety Code Sections 18930.5 and 18931(c).

Reference(s): Health and Safety Code Sections 18930.5 and 18931(c).

ITEM 12

APPENDIX A5, SECTION A5.106—SITE DEVELOPMENT

SUB-ITEM 12-1

A5.106.5.1 Designated parking for clean air vehicles. ...

...

A5.106.5.1.4 Parking stall marking. Utilizing stall striping paint, paint ~~Paint, in the paint used for stall striping,~~ the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle:

CLEAN AIR/
VANPOOL/EV

...

SUB-ITEM 12-2

A5.106.7 Exterior wall shading. ...

...

A5.106.7.2 Opaque wall areas. Use wall surfacing with minimum SRI 25 (aged), for 75 percent of opaque wall areas.

Exception: Use of vegetated shade in Wildland-Urban Interface Areas as defined in ~~Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) of the California Building Code~~ the California Wildland-Urban Interface Code (CWUIC) shall meet the requirements of that ~~chapter~~ code.

Note: If not available from the manufacturer, aged SRI value calculations may be found at the California Energy Commission's web site at www.energy.ca.gov.

Notation:

Authority: Health & Safety Code Sections 18930.5, 18931(c) and 18941.10.

Reference(s): Health & Safety Code Sections 18930.5, 18931(c) and 18941.10.

ITEM 13

APPENDIX A5, SECTION A5.402—DEFINITIONS

SUB-ITEM 13-1

[Withdrawn]

ITEM 14 APPENDIX A5, SECTION A5.405—MATERIAL SOURCES

SUB-ITEM 14-1

A5.405.4 Recycled content. Use materials, equivalent in performance to virgin materials with a total (combined) recycled content value (RCV) of:

Tier 1. ...

Tier 2. ...

(Equation A5. 4-2) ...

Notes-:

- ~~1. Sample forms which allow user input and automatic calculation are located at www.hcd.ca.gov/CALGreen.html and may be used to simplify documenting compliance with this section and for calculating recycled content value of materials or assembly products.~~
2. Sources and recycled content of some recycled materials can be obtained from CalRecycle if not provided by the manufacturer.

Notation:

Authority: Health and Safety Code Section 18930.5.

Reference(s): Health and Safety Code Section 18930.5.

ITEM 15 APPENDIX A5, SECTION A5.409—LIFE CYCLE ASSESSMENT

SUB-ITEM 15-1

SECTION A5.409 LIFE CYCLE ASSESSMENT EMBODIED CARBON REDUCTION

A5.409.1 Scope. Projects with the area limits specified shall comply with Section A5.409.1 to achieve Tier 1 or Tier 2 compliance. Projects of any size shall comply with A5.409.5 to achieve Tier 2 compliance.

1. Projects consisting of newly constructed building(s) with a combined floor area of 50,000 square feet or greater shall comply with either Section ~~A5.409.2~~ A5.409.3 or Section ~~A5.409.3~~ A5.409.4.
2. Alteration(s) to existing building(s) where the combined altered floor area is 50,000 square feet or greater shall comply with either Section ~~A5.409.2~~ A5.409.2, Section ~~A5.409.2~~ A5.409.3 or Section ~~A5.409.3~~ A5.409.4.
3. Addition(s) to existing building(s) where the total floor area combined with the existing building(s) is 50,000 square feet or greater shall comply with either Section ~~A5.409.2~~ A5.409.2, Section ~~A5.409.2~~ A5.409.3 or Section ~~A5.409.3~~ A5.409.4.

Exception: Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section ~~A5.105.2~~ A5.409.2.

4. Projects consisting of newly constructed building(s) with a combined floor area of less than 50,000 square feet shall comply with either Section ~~5.409.2~~ 5.409.3 or Section ~~5.409.3~~ 5.409.4 for Tier 1 compliance, and either Section ~~A5.409.2.1~~ A5.409.3 or ~~A5.409.3~~ A5.409.4 Tier 1 requirements for Tier 2 compliance.
5. Alteration(s) to existing building(s) where the aggregate floor area is less than 50,000 square feet shall comply with either Section ~~5.105.2~~ 5.409.2, Section ~~5.409.2~~ 5.409.3, or Section ~~5.409.3~~ 5.409.4 for Tier 1 compliance, and either Section ~~A5.105.2.1~~ A5.409.2.1, Section ~~A5.409.2.1~~ A5.409.3, or Section ~~A5.409.3~~ A5.409.4 Tier 1 requirements for Tier 2 compliance.
6. Addition(s) to an existing building where the total floor area combined with the existing building(s) is less than 50,000 square feet shall comply with either Section ~~5.105.2~~ 5.409.2, Section ~~5.409.2~~ 5.409.3, or Section ~~5.409.3~~ 5.409.4 for Tier 1 compliance, and either Section ~~A5.105.2.1~~ A5.409.2.1, Section ~~A5.409.2.1~~ A5.409.3, or Section ~~A5.409.3~~ A5.409.4.1 Tier 1 requirements for Tier 2 compliance.

Exception: Combined addition(s) to existing building(s) of two times the area or more of the existing building(s) is not eligible to meet compliance with Section ~~5.105.2~~ 5.409.2 or Section ~~A5.105.2~~ A5.409.2.1.

SUB-ITEM 15-2

~~A5.105.2~~ A5.409.2 Reuse of existing building option. Projects that include the reuse of an existing building shall meet the minimum requirements of Section ~~A5.105.2~~ A5.409.2.

~~A5.105.2.1~~ A5.409.2.1 Tier 1: An alteration or addition to an existing building shall maintain at least 75 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.

~~A5.105.2.2~~ A5.409.2.2 Tier 2: An alteration or addition to an existing building shall maintain at least 75 percent combined of the existing building's primary structural elements (foundations; columns, beams, walls, and floors; and lateral elements) and existing building enclosure (roof framing, wall framing and exterior finishes). In addition, an alteration to an existing building shall maintain 30% of existing interior nonstructural elements (interior walls, doors, floor coverings, ceiling systems). Window assemblies, insulation, portions of buildings deemed structurally unsound or hazardous, and hazardous materials that are remediated as part of the project shall not be included in the calculation.

~~A5.105.2.3~~ A5.409.2.3 Verification of compliance. Documentation shall be provided in the construction documents to demonstrate compliance with Section ~~A5.105.2~~ A5.409.2.

Note: Sample Worksheet WS-6 in Chapter 8 may be used to assist in documenting compliance with this section.

SUB-ITEM 15-3

A5.409.3 Product GWP compliance - prescriptive-path option. Each product that is permanently installed and listed in Table A5.409.3, shall not exceed the maximum GWP value specified in Table A5.409.3 for Tier 1 or Tier 2 compliance and shall have a Type III environmental product declaration (EPD), either product-specific or factory-specific.

~~**A5.409.3.1.** Products shall comply with the requirements for product GWP performance in accordance with Section A5.409.3 using for the maximum acceptable GWP value for the product category listed in Table A5.409.3 for Tier 1 or Tier 2 compliance for the verified reduction calculation resulting in a minimum 15 percent reduction in total GWP.~~

SUB-ITEM 15-4

Exceptions:

1. Previously used building materials or products that have been salvaged and then reused without substantial modification of their form are not required to have a Type III EPD and shall have a GWP of zero. Such materials shall be minimally processed only, such as cleaning, repairing, resurfacing and resizing.

SUB-ITEM 15-5

1. ~~Concrete may be considered one product category to meet compliance with this section.~~ Concrete mixes may be considered as a A weighted average of the maximum GWP for all concrete mixes installed in the project. The weighted average maximum GWP shall be less than the weighted average maximum GWP allowed per Table A5.409.3 using Exception 2 EQUATION A5.409.3.4. Calculations shall be performed with consistent units of measurement for the material quantity and the GWP value. For the purposes of this exception, industry wide EPD's are acceptable.

Exception 2 EQUATION 5.409.3-4

$$GWP_n < GWP_{allowed}$$

where

$$GWP_n = \sum (GWP_n)(v_n) \quad \text{and} \quad GWP_{allowed} = \sum (GWP_{allowed})(v_n)$$

and

n = each concrete mix installed in the project

GWP_n = the GWP for concrete mix n per concrete mix EPD, in kg CO₂e /m³

$GWP_{allowed}$ = the GWP potential allowed for concrete mix n per Table ~~5.409.3~~ A5.409.3

v_n = the volume of concrete mix n installed in the project, in m³

SUB-ITEM 15-6

**TABLE A5.409.3
PRODUCT GWP LIMITS**

Buy Clean California Materials Product Category ¹	Tier 1 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Tier 2 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Unit of Measurement
...	...		...
Flat glass	2.15	1.43	kg CO ₂ e/MT MT CO ₂ e/MT
...	...		...

Concrete, Ready-Mixed ^{2,31}

Concrete Product Category	Tier 1 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Tier 2 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Unit of Measurement
...	...		...

Concrete, Lightweight Ready-Mixed ²

Concrete Product Category	Tier 1 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Tier 2 Maximum Acceptable GWP Value (unfabricated) (GWP _{allowed})	Unit of Measurement
...	...		...

SUB-ITEM 15-7

TABLE A5.409.3 Footnotes

- ~~1. The GWP values of the products listed in Table A5.409.3 are based on 150% of Buy Clean California Act (BCCA) GWP values, except for concrete products which are not included in BCCA.~~
- ~~2. For concrete, Tier 1 is 150%, Tier 2 is 100% of the National Ready Mixed Concrete Association (NRMCA) 2022 version 3 Pacific Southwest regional benchmark values are used for the GWP allowed, except for High Early Strength.~~
- ~~1. 3-Concrete High Early Strength ready-mixed shall be calculated at 130 percent of the ready-mixed concrete GWP allowed values for each product category.~~

SUB-ITEM 15-8

A5.409.3.21 Verification of compliance. Calculations to demonstrate compliance, Type III EPDs for products required to comply if included in the project, and Worksheet WS-8 signed by the design professional of record shall be provided on the construction documents. Updated EPDs for products used in construction shall be provided to the owner at the close of construction and to the enforcement entity upon request. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.

SUB-ITEM 15-9

~~A5.409.2~~ **A5.409.4 Whole building life cycle assessment – performance option.**

Projects shall meet the minimum requirements of Section ~~A5.409.2~~ A5.409.4 for Tier 1 or Tier 2 compliance.

~~A5.409.2.1~~ **A5.409.4.1 Tier 1.** Projects shall conduct a cradle-to-grave whole building life cycle assessment meeting the requirements of Section ~~5.409.2~~ 5.409.4 and performed in accordance with ISO 14040 and 14044, excluding operating energy, demonstrating a minimum 15-percent reduction in global warming potential (GWP) as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and geographic location that meets the requirements of ~~all parts of the California Building Standards Energy Code~~ currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO 14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931 and/or EN 15978. The software tools and data sets shall be the same for evaluation of both the baseline building and the proposed building.

Exception: For projects that include building reuse, the reference baseline building shall exclude the reused elements. The percent reduction in GWP shall be achieved through the design and construction of new project elements.

~~A5.409.2.2~~ **A5.409.4.2 Tier 2.** Projects shall conduct a cradle-to-grave whole building life cycle assessment meeting the requirements of Section ~~5.409.2~~ 5.409.4 and performed in accordance with ISO 14040 and ISO 14044, excluding operating energy, demonstrating a minimum 20-percent reduction in GWP as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, and geographic location that meets the requirements of ~~all parts of the California Building Standards Energy Code~~ currently in effect. Software used to conduct the whole building life cycle assessment, including reference baseline building, shall have a data set compliant with ISO 14044, and ISO 21930 or EN 15804, and the software shall conform to ISO 21931 and/or EN 15978. The software tools and data sets shall be the same for evaluation of both the baseline building and the proposed building.

SUB-ITEM 15-10

Section A5.409.4.2 Exception

Exception: For projects that include building reuse, the reference baseline building shall ~~not be of new construction and shall retain existing materials~~ exclude the reused elements. The percent reduction in GWP shall be achieved through the design and construction of new project elements.

SUB-ITEM 15-11

~~A5.409.2.3~~ **A5.409.4.3 Verification of compliance.** A summary of the GWP analysis produced by the software and Worksheet WS-7 signed by the design professional of record shall be provided in the construction documents as documentation of compliance. A copy of the whole building life cycle assessment which includes the GWP analysis produced by the software, in addition to maintenance and training information, shall be included in the operation and maintenance manual and shall be provided to the owner at the close of construction. The enforcing agency may require inspection and inspection reports in accordance with Sections 702.2 and 703.1 during and at completion of construction to demonstrate substantial conformance. Inspection shall be performed by the design professional of record or third party acceptable to the enforcing agency.

SUB-ITEM 15-12

~~A5.409.4~~ **A5.409.5 Whole building life cycle assessment of additional impacts.** Maintaining compliance with the requirements of Section ~~5.409.2~~ 5.409.4, conduct a cradle-to-grave whole building life cycle assessment performed in accordance with ISO 14044, including operating energy, and demonstrating a minimum 10-percent improvement for a minimum of two additional impacts listed in Section ~~A5.409.4.1~~ A5.409.5.1, as compared to a reference baseline building of similar size, function, complexity, type of construction, material specification, geographic location and operating energy performance that meets the requirements of the *California Energy Code* currently in effect.

~~A5.409.4.1~~ **A5.409.5.1 Impacts to be considered.** Select from the following impacts in the assessment:

...

Notation:

Authority: Health and Safety Code Section 18930.5 and 18931(c).

Reference(s): Health and Safety Code Section 18930.5 and 18931(c).