



Proposed Local Amendments to 2022 CAL Green Code with Mid-Cycle Supplements

Environment and Climate Commission

April 24, 2024





CA Building Code Adoption Process

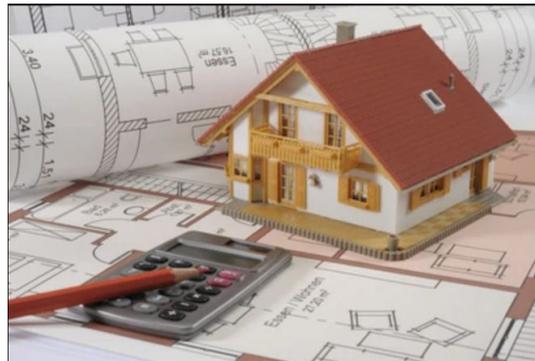


Triennial Code Adoption Cycle

- New editions of the **California Building Standards Code** are published every three years in a triennial cycle with supplemental revisions to the code published at 18 months (Mid-Cycle)
- State law requires local governments to enforce the latest edition of the **California Building Standards Code**
- 2022 California Building Standards Code with Berkeley's local amendments went into effect on **January 1, 2023**
- **California 2024 Mid-Cycle Supplements** effective July 1, 2024 will require Berkeley amendments to be adopted



Proposed Mid-Cycle Code CALGreen Amendments



- Increased multifamily EV charging
 - parking lifts
- Increased Construction and Demolition (C&D) waste diversion (retain)
- Low-carbon concrete (retain)
- Zero NO_x

NOTE: CALGreen also has new requirements for the deconstruction and reuse of existing non-residential structures



New: CALGreen Deconstruction and Reuse

CALGreen Mid-Cycle Supplement Deconstruction and Reuse: Requirements for new nonresidential construction >100kSF and schools >50kSF

Pathway	Mandatory	Tier 1	Tier 2
Option 1: Building Reuse	45% of the structure and enclosure to be reused	75% of the structure and enclosure to be reuse	75% of the structure and enclosure to be reused AND 30% of interior non-structural elements to be reused
Option 2: Whole Building LCA (WBLCA)	10% reduction from baseline	15% Reduction from baseline	20% Reduction from baseline
Option 3: Prescriptive Approach	175% of industry-wide Environmental Product Declarations Global Warming Potential limits	150% of industry-wide Environmental Product Declarations Global Warming Potential limits	100% of industry-wide Environmental Product Declarations Global Warming Potential limits



New Mid-Cycle amendment proposal: EV Charging

Occupancy	Charging Space Type	2022 Berkeley Green Code			2022 Mid-Cycle CALGreen		
		% Rqd	Direct Connect?	Plug Standards?	% Rqd	Direct Connect?	Plug Standards?
Hotel/ Motel	EV Capable	20%	No	None	0%	NA	NA
	EV Ready (LPL2)	25%	No	None	40%	None	NEMA14-30R plug receptacle
	EVSE	5%	No	None	10%	No	J1772 or J3400
Multifamily	EV Capable	20%	No	None	0%	NA	NA
	EV Ready (LPL2)	25%	No	None	40%	Receptacle Power Source* 4.106.4.2.2.1(c)	NEMA14-30R plug receptacle
	EVSE	5%	No	None	10%	No	J1772 or J3400

* 4.106.4.2.2.1(c) = Dedicated branch circuit to multifamily dwelling unit's electrical panel (not re-assignable to another unit)

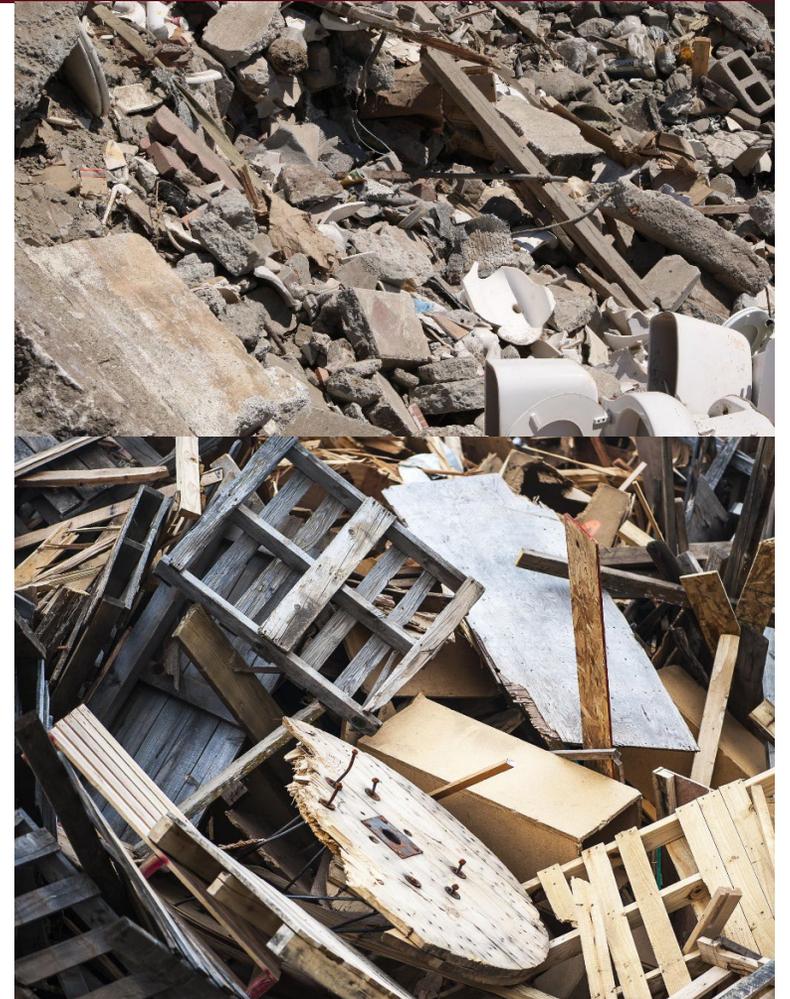


Previously adopted amendment: C&D Waste

Construction and Demolition (C&D) Waste Management

- Diversion of at least 65% of nonhazardous C&D waste by recycling, reuse, and salvage
- 100% diversion of asphalt, concrete, and land-clearing debris (excavated trees, stumps, rocks, etc.)

Note: GreenHalo required for C&D tracking and reporting: berkeley.wastetracking.com





Previously adopted amendment: Concrete

Low-Carbon Concrete

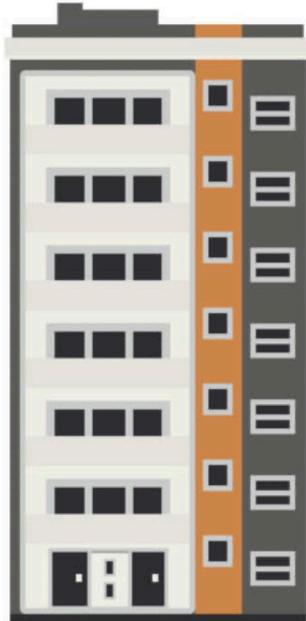
- Reduce cement in concrete mix design by at least 25%
 - Cement alternatives include fly ash, slag, silica fume, rice hull ash, etc.

Cement used in concrete is the single largest material source of embodied emissions in buildings, responsible for 8% of global emissions





New Mid-Cycle amendment proposal: Zero NOx



Newly constructed buildings must be Zero NOx Emission Buildings

- A Zero NOx Building uses no NOx Emitting Equipment/Appliances for space heating, space ventilation, water heating, cooking, clothes drying and/or lighting
 - Includes future additions and alterations
- Applies to all newly constructed buildings (residential and non-residential) except for industrial/heavy manufacturing processes



Zero NOx Background

AIR POLLUTANT IMPACTS:



Acid Rain



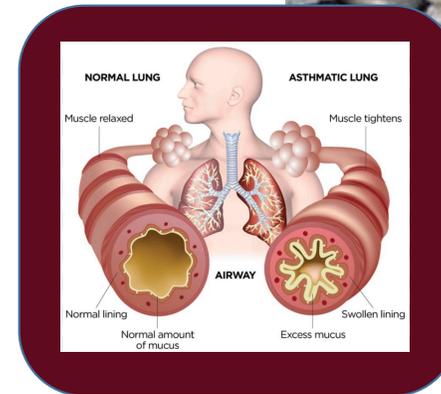
Haze



Ozone



Asthma





Zero NOx Background

- Supports Berkeley's Strategic Plan, Climate Action Plan, and Fossil Fuel Free City goals
 - Limits the human health, environmental, and climate impacts of emissions associated with building occupancy
- Supports Bay Area Air Quality Management District (BAAQMD) Zero NOx Appliance requirements that begin in Jan 2027
- Builds on Los Altos Hill's Zero NOx ordinance adopted earlier this year



Thank You!

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