

LA County Recovers

Major Developments in the Los Angeles County Building Codes for Single-Family Dwellings and Duplexes

From the mid-1900s to the 2023 Los Angeles County Building Codes

1) Seismic and Structural Engineering Requirements

- The current Building Code includes far more refined seismic design methods, detailing expectations, anchorage, and verification mechanisms than typical mid-1960s practice.
 - Modern load combinations, seismic design categorization, anchorage/diaphragm systems, and referenced standards. Today much stronger expectations for ductility, connections, and load paths.
- Plans prepared by a licensed engineer or architect are required for single family residential construction greater than 1 story.
- Special requirements for homes constructed on or into steep slopes.
- Special inspections performed by a 3rd party inspector required in special cases.
- Deeper foundations, and greater reinforcement for foundations, unless a soils report is produced requiring otherwise.
- Requirement for soils engineering and special foundations for buildings in Seismic Hazard Zones
- Seismic loading is required as a part of the design of retaining structures with retaining heights that exceed a certain threshold

2) Fire/life-safety Requirements

- Automatic Fire Sprinkler Systems are required today for all single-family dwellings and duplexes.
 - Smoke alarms and carbon monoxide alarms are also required.

3) Energy and Green Building Requirements

- California's energy standards became a major driver later (commonly cited as emerging in the late-1970s policy era), and now the Building Codes include extensive energy/green requirements as core minimums.
 - Required ceiling, wall, underfloor, and duct insulation
 - Minimum u-factor and solar heat gain requirements for windows
 - Minimum efficiency standards for heating and cooling equipment
 - 3rd party HERS testing for certain energy related building components
 - Air sealing and Duct sealing
 - Lighting efficiency and controls
 - Solar panels or Solar panel ready requirements
 - Electric-ready infrastructure requirements
- California's Green Building Code requires:



LA County Recovers

- Low Impact Development (LID) to retain runoff from impervious surfaces
- Electric Vehicle ready infrastructure
- Low flow plumbing fixtures
- Drought tolerant landscaping
- Recycling of construction debris
- Volatile Organic Carbon limits on building materials, paint, carpet, and flooring
- Cool roof requirements

4) Wildfire/WUI construction requirements for buildings in Wildland-Urban Interface (WUI) areas

- The Current Building Code includes wildfire-exposure construction methods, reflecting today's WUI risk profile for homes in WUI areas.
 - Class A roofing
 - Enclosed roof eaves
 - Attic and underfloor baffled vent protections
 - Dual-pane, tempered windows with noncombustible frames.
 - Heavy-timber porch cover and decks

5) Electrical System Requirements

- Current Electrical Code requires:
 - Grounding type receptacles
 - GFCI circuits/outlets required
 - AFCI circuits/outlets required
 - Grounding electrode requirements
 - Bonding of all metal systems
 - Energy Storage System Ready service panels

6) Plumbing System Requirements

- Current Plumbing Code requires:
 - Pressure balance or thermostatic mixing valves
 - Dual waste piping for graywater irrigation systems

7) Onsite Wastewater Treatment System (Septic System) Requirements

- For structures not connected to a public sewer, Los Angeles County Building Codes require compliance with the State OWTS Policy and Los Angeles County Local Agency Management Program (LAMP).
 - Design & Approval: Septic systems must be designed, reviewed, and approved in accordance with county and state requirements prior to building permit issuance.
 - Site Evaluation: Soil testing and required setbacks (from features such as buildings and property lines) ensure proper system sizing and protection of health and groundwater.
 - Advanced Treatment Systems: Advanced treatment systems may be required where the site constraints prevent use of conventional systems.



LA County Recovers

8) Fire Department Requirements

- **Fuel Modification:** Homes in Fire Hazard Severity Zones must submit and obtain approval of a Fuel Modification Plan identifying vegetation types, planting locations, irrigation, and compliance with Zone 0–3 defensible-space requirements.
- **Water Requirements:** Fire flow requirements for hydrants, including flow rates and distance to the property line.
- **Access Requirements:** Fire Department access must allow engines within 150 feet of all building locations, provide a five-foot perimeter walking surface, and include compliant access roads meeting minimum width, length, slope, turning radius, and turn-around standards.



For more detailed information on the rebuild process, please visit recovery.lacounty.gov/rebuilding

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