



COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUILDING AND SAFETY DIVISION

**ONE- & TWO-FAMILY
 DWELLING**
PLAN REVIEW LIST

GENERAL PROJECT INFORMATION

PLAN CHECK NO. _____ DISTRICT NO _____ INITIAL VALUATION _____
 JOB ADDRESS _____ CITY _____ ZIP _____
 OWNER _____ TELEPHONE (____) _____
 ARCH/ENG _____ TELEPHONE (____) _____
 APPLICANT _____ TELEPHONE (____) _____
 ADDRESS _____ CITY _____ ZIP _____

PROJECT INFORMATION

USE ZONE _____ CLIMATE ZONE _____ VHFHSZ: YES NO FLOOD ZONE: YES NO

BUILDING ELEMENT	SQ. FT.	NO. OF STORIES	CONSTR. TYPE	OCC. GROUP	\$/SQ. FT.	\$ VALUE
New Valuation:						

PLAN CHECK ENGINEER AND CORRECTION INFORMATION

REVIEWED BY _____ DATE _____ EMAIL _____
 RECHECKED BY _____ DATE _____ EMAIL _____
 RECHECKED BY _____ DATE _____ EMAIL _____

Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. Pursuant to Government Code Section 65852.2 if this permit application is for an Accessory Dwelling Unit (ADU) or Junior Accessory Dwelling Unit (JADU), issuance of this full set of comments and description of how the application can be remediated constitutes notice of permit application denial. The approval of plans and specifications does not permit the violation of any section of the Building Code, or other local ordinance or state law.

NOTE: Numbers in the parenthesis () refer to sections of the 2023 edition of County of Los Angeles Building Code, Existing Building Code (E), Residential Code (R), Table (T), Plumbing Code (PC), Mechanical Code (MC), Electrical Code (EC), Building Code Manual (BCM), 2018 National Design Specifications (NDS), 2021 Special Design Provisions for Wind and Seismic (SDPWS), 2016 Minimum Design Loads for Buildings and Other Structures including Supplement No. 1 (ASCE7), ACI 318-19, TMS 402-2016, TMS 602-2016, AISC 360-16, AISC 341-16, AISI S100-16/S2-20.

For County of Los Angeles Building Code Amendments and BCMS, visit www.dpw.lacounty.gov/bsd/content

INSTRUCTIONS

- Corrections with circled item numbers apply to this plan check.
- In the left-hand margin of the circled corrections, please indicate the sheet number and detail or note number on the plans where the corrections were addressed. Resubmit marked original plans and two corrected sets of plans, calculations, and this plan review list.
- Incomplete, unclear, or faded drawings or calculations will not be accepted.
- The plan check engineer will be available for conference and telephone calls between the hours of _____ and _____ on the following days: _____. **Appointments are recommended.**
- Incorporate all comments as marked on checked set of plans and calculations and these correction sheets.

APPLICATION AND PERMIT

1. Application will expire on ____/____/____. Permit needs to be obtained prior to expiration date otherwise the application shall expire. (106.4.1.1)
2. Valuation is low. It should be \$ _____. Pay a supplemental plan check fee of \$ _____ at the time of re-submittal. (107.2)

3. At final submittal, two complete sets of plans are required and one additional architectural set that includes: a) a site plan, b) dimensioned floor plans, and c) elevations. The final three sets of plans shall be stamped and signed by the California registered architect or engineer when appropriate.
4. Separate permit(s) is / are required for accessory buildings, swimming pools, retaining walls, bridges not involving buildings, detached garages, demolition, _____ . (106.1)
5. Show / correct address of the building on the permit application. (106.4.1)
6. A Certificate of Workers' Compensation insurance must be presented to the local Building and Safety Division Office before a permit can be issued.

REFERRALS

ALL AGENCY APPROVALS are required prior to permit issuance. Please see the agency referral sheet, provided during initial screening, for details.

7. Approval is required by the City of _____ for _____ (106.5.1)
8. (Soil) (Foundation) (Geology) report(s) must be approved by Geotechnical & Materials Engineering Division. Provide a copy of approved report and Department approval letter.
9. A Grading Permit (maybe) / (is required) per Appendix J103. Contact Drainage & Grading Section of Building and Safety Division to determine if a grading permit is required. (Appendix J103)
A grading permit is required for the following:
 - a. All excavations exceeding 2-ft. in depth (except for footings, basements and retaining walls). Note: the placement of excess material from such excavations may require a grading permit.
 - b. All fills:
 - i. Intended to support structures.
 - ii. That obstructs or diverts a drainage course.
 - iii. One foot or more in depth placed on natural slopes steeper than 5 units horizontal to 1 unit vertical.
 - iv. 3-ft. or more in depth at its deepest point and greater than 50 cubic yards.
 - v. 5-ft. or more in depth at its deepest point and greater than 20 cubic yards.
 - c. The grading of access roads or pads for exploratory excavations.
10. Rough grading approval is required before a building permit can be issued. (Appendix J105.7)
11. Submit solar plans to the Electrical Section for solar plan check.

SUPPLEMENTAL PLAN REVIEW COMMENTS/SHEETS

12. Refer to the attached sheets for supplemental plan review comments:

- a. 2022 Energy Standards Correction Sheet (effective January 1st, 2023)
 - b. Very High Fire Hazard Severity Zone Requirements
 - c. Hillside Structures Plan Review (slope > 33.3%)
 - d. Steel Moment Frame Plan Review
 - e. Residential Green Building Standards Code Plan Review
 - f. Multi-family Residential Accessibility Plan Review
13. Photocopy/blueprint the following on the plans: (Do NOT staple to the plans)
 - a. Residential Plan General Notes Requirements
 - b. [Best Management Practice for Construction Activity \(Attachment A\)](#) requirements.
 - c. [Structural Observation Program](#)
 14. The address of the building, and the name and address of the owner(s), and person(s) preparing the plans are required on the first sheet of the plans. (106.4.3)
 15. Delete notes and details that do not apply to this project. (106.4.3)
 16. Indicate detail and section references as to their appropriate location on plan views. (106.4.3)
 17. Provide existing and proposed contours / spot elevations to indicate general site slope and drainage pattern. (106.4.3)
 18. Specify finish floor elevation of first floor and elevation difference to adjacent grade at all doors. (106.4.3)

ZONING/PLANNING REQUIREMENTS

19. Approval from the Regional Planning Department is required for:
 - a. Residential use in _____ zone / establishing the property as a legal building site / a land use zone that is not in compliance with the General Plan.
 - b. Residential use on a lot less than 5,000-SF.
20. Locate the building to comply with _____ ft. front yard, _____ ft. side yard and _____ ft. rear yard setback lines.
21. Provide a garage or carport for two automobiles with paved driveway (3½-in. concrete or 1½-in. asphalt on 4-in. base). Minimum required area is 8½-ft. x 18-ft. per parking space.

SITE PLAN / BUILDING SITING

22. Provide a complete plot plan showing: Lot dimensions / yard setbacks / street name(s) / north arrow / existing building(s) to remain / distance between buildings / location of private sewage disposal system including expansion areas / utilities / easements / _____ .(106.4.3)
23. Maintain 5-ft. clearance between septic tank(s) and seepage pit(s) and minimum clearances to buildings and property lines of 5-ft. for the septic tank and 8-ft. for the seepage pit. (PC Appendix H T-H1.7)

24. Exterior walls of dwellings and accessory buildings less than 5-ft.(non-Sprinklered) / 3-ft. (Sprinklered) to the property line shall be 1-hour fire-resistance-rated construction. (R302.1, T-R302.1(1) & (2))
25. No openings other than approved foundation vents shall be permitted in the exterior walls of dwellings and accessory buildings where the exterior wall is less than 3-ft. to the property line. (R302.1, T-R302.1(1) & (2))
26. The area of exterior wall openings of non-sprinklered dwellings and accessory buildings located \geq 3-ft. and < 5-ft. to the property line shall be limited to 25% of the wall area. The area of exterior wall openings is unlimited when exterior walls are located \geq 5-ft for non-sprinklered buildings and \geq 3-ft. for sprinklered buildings. (T-R302.1(1) & (2))
27. Projections, including eaves, are not permitted within 2-ft. from the property line, except detached garages accessory to a dwelling are permitted to have 4-in. eave. Projections located \geq 2-ft. and < 5-ft.(non-sprinklered) / 3-ft.(sprinklered) to the property line shall be of at least 1-hour fire-resistance-rated on the underside. (R302.1, T-R302.1(1) & (2))
28. Buildings adjacent to ascending or descending slopes shall maintain setback according to the requirements of Section R403.1.7. (See Fig. R403.1.7.1)
29. For townhouses, 30-in. high parapets shall be constructed as an extension of common walls unless:
 - a. Roof surfaces adjacent to the wall(s) have different elevations of 30-in. or more (R302.2.4)
 - b. Roof is covered with a minimum Class C covering, and the roof sheathing is of noncombustible materials or approved fire-retardant-treated wood for a distance of 4-ft. on each side of the wall(s), or one layer of 5/8-in. Type X gypsum board installed directly beneath the roof sheathing with 2-inch ledger for a minimum distance of 4-ft. on each side of the wall(s) (R302.2.2 EX)
30. Townhouses with four or more dwelling units in a building shall meet the requirements of Chapter 11A of 2014 County of Los Angeles Building Code. (R320.1)
32. Roof slope is not adequate for the type of roof covering specified on plan. (R905)
33. Show sizes/locations of the roof/deck drains and overflows on the plans. Roof drainage systems shall be designed in accordance with Ch. 11 of the PC for minimum rain intensity of 3-in./hr. Scupper openings used as overflows shall be a minimum of 4-in. high and have an opening area at least three (3) times that of the roof drains and located a minimum of 2-in. above the roof surface. (R903.4.1)

DESIGN REQUIREMENTS

34. An automatic residential fire sprinkler system in accordance with NFPA 13D or Section R313.3 shall be installed in one- and two-family dwellings or townhouses including attached garages. (R309.6, R313.1, R313.2, R313.3)
35. For duplexes/ two-family dwellings provide the following:
 - a. Floors and walls separating dwelling units in two-family dwelling shall not be of less than one-hour fire-resistive rating or 1/2-hour fire-resistive rating when an automatic sprinkler system installed in accordance with section R313. (R302.3, R302.3 EX 1)
 - b. Provide sound transmission ratings (STC) per Section 1207 of the LA County Building Code.
 - c. Wall assemblies shall extend from the foundation to the underside of the roof sheathing. (302.3)
 - d. Show draft separation for attic areas between units in a duplex. (R302.12)
36. Townhouses shall comply with Section R302.2.
37. Show the following on plans:
 - a. All habitable rooms with a minimum floor area of 70-SF, except kitchen. (R304.1)
 - b. Habitable spaces shall not be less than 7-ft. in any horizontal dimension, except kitchen. (R304.2)
 - c. Habitable space, hallways, bathrooms, toilet rooms and laundry rooms shall have a ceiling height of no less than 7-ft. (R305.1).
 - d. Bathrooms, toilet rooms & laundry rooms shall have a ceiling height of no less than 6-ft. 8-in. at the center of the front clearance area for fixtures. (R305.1)
 - e. Basement without habitable spaces shall have a ceiling height of no less than 6-ft. 8-in., except 6-ft. 4-in. is allowed under beams or ducts. (R305.1.1)
38. Where the opening of an operable window is located more than 72 inches above the finished grade or surface, the clear opening of the window shall be a minimum of 24 inches above the finished floor. Specify sill height of all operable windows. (R312.2)
39. Glazing at _____ is located at a hazardous location and shall be tempered. (R308.4)
40. Aggregate glazing area of habitable rooms must be minimum 8% of the room floor area. This is deficient in _____. (R303.1)

ROOF COVERING

31. For roof covering specify:
 - a. Roof slope(s) of all areas on the roof plan. (R905)
 - b. Manufacturer and type of built-up roof. (R905.9)
 - i. Built up roof covering materials shall comply with the standards in Table R905.9.2
 - ii. Built-up roofs shall have a minimum slope of 1/4-in. per foot (2%) for drainage (R905.9.1)
 - c. Type / manufacturer and I.C.C. / UL number of shingle / tile roof. (R905.2, R905.3)
 - d. If a Cool Roof is required, see [COOL ROOF - TECHNICAL REQUIREMENTS](#), specify CRRC# directly on the plans. Verify product can be verified at <https://coolroofs.org/directory/roof>.
 - e. Roof covering shall be Class C rated or better, or as required. (R902.1)

41. In order to consider any room as a portion of an adjoining room, at least 1/2 of the common wall area shall be open and unobstructed and shall provide an opening of not less than 1/10 the floor area of the interior room or 25-SF, whichever is greater. Show that the common wall between _____ and _____ complies. (R303.2)
42. Sunrooms & patio covers next to required windows at _____ must have a minimum clear height of 7-ft. with longer side at least 40% open and unobstructed. (R303.8.1)
43. Minimum openable area of habitable rooms must be 4% of the floor area. (R303.1)
44. For light and/or ventilation purpose, the openable area between _____ and the sunroom or patio cover shall not be less than 1/10 of the floor area of the interior room or 20-SF, whichever is greater. (R303.2 EX)
45. Habitable rooms using artificial light shall comply with code requirements and method of compliance shall be clearly identified on plans. (R303.1 EX3)
46. The glazed area need not be openable where the opening is not required and a whole house Mechanical ventilation system installed per the Mechanical Code. (R303.1 EX 1)
47. Bathrooms, water closet compartments and other similar rooms shall be provided with minimum glazing area of 3-SF, one-half of which is openable. The glazed areas are not required where artificial light and a mechanical ventilation of 50-CFM intermittent or 20-CFM continuous ventilation are provided. (R303.3 EX)
48. Bathrooms containing a bathtub, shower, or tub/shower shall be mechanically vented for humidity control (R303.3.1)
49. Dimension on the plans the 30-in. clear width for water closets and 24-in. clearance in front of water closet for _____ bathroom. (PC 402.5)
50. Shower doors shall swing out. Net area of shower receptor shall be not less than 1,024 sq. in. of floor area and encompass 30-in. diameter circle. (PC 408.6)
51. In newly constructed dwelling units, reinforcement for grab bars must be installed in one bathroom on the entry level in accordance with section R327.1.1. Reinforcement shall be located between 32-inches and 39 1/4-inches above the finished floor flush with the wall.
- Water closet reinforcement shall be installed on both side walls of the fixture, or on one side wall and the back wall.
 - Where there is no bathroom at the entry level, the reinforcement for grab bars may be installed on the second or third floor.
52. Information and/or drawings identifying the location of grab bar reinforcement shall be placed in the operation and maintenance manual in accordance with the CGBSC Section 4.410.1. [CRC R327.1.1.1]
53. Electrical receptacle outlets, switches and controls (including controls for heating, ventilation and air conditioning) intended to be used by occupants shall be located no more than 48-inches measured from the top of the outlet box and not less than 15-inches measured from the bottom of the outlet box above the finish floor. [CRC R327.1.2]
54. Doorbell buttons or controls, when installed, shall not exceed 48-inches above exterior floor or landing, measured from the top of the doorbell button assembly. [CRC R327.1.4]
55. In every bedroom and basement, provide one openable escape window meeting all of the following: (R310.2, R310.2.2)
- A net clear opening area of not less than 5.7-SF. Ex. Grade floor net clear opening area not less than 5.0 sf
 - A minimum clear height of 24-in. and clear with of 20-in.
 - The bottom of the clear opening not greater than 44-in. measured from the floor.
56. Show location(s) of interconnected hard-wired "SMOKE ALARM" with battery backup in the following: (R314)
- In each sleeping room.
 - Outside of each separate sleeping area in the immediate vicinity of the bedrooms
 - On each additional story of the dwelling, including basements and habitable attics, but not including crawl spaces and uninhabitable attics.
 - Not less than 3-ft from a door or opening outside of a bathroom that contains bathroom or shower unless it affects a-c. (R314.3.3)
 - Provide a note: "SMOKE ALARM shall be interconnected hard-wired with battery backup and shall be installed in accordance with NFPA 72."
 - Battery smoke alarm permitted in existing buildings where no construction is taking place.
 - When a hall and room open to the hall have a ceiling height difference that exceeds 24-inches.
57. For buildings with fuel-burning appliances and/or attached garages, provide an approved carbon monoxide alarm at: (R315)
- Outside of each separate sleeping area in the immediate vicinity of the bedrooms
 - On every level of a dwelling unit including basements
 - Where fuel-burning appliances are in bedroom or attached bathroom.
 - Provide a note: "CARBON MONOXIDE ALARM shall be interconnected hard-wired with battery backup."
 - Battery carbon monoxide alarm is permitted in existing dwelling units where no construction is taking place.
58. Show location of 22-in. x 30-in. attic access with 30-in. minimum headroom for attic greater than 30-SF. (R807.1)

59. Provide full height transverse and longitudinal building cross sections showing framing, plate heights, total heights, insulation, foundation, finish grade, etc. (106.4.3)

EXITS AND STAIRS

60. Provide at least one side-hinged egress door from each dwelling unit not less than 3-ft. wide and 6-ft. 6-in. in height, with a minimum clear width of 32-in. Egress doors shall be readily openable from inside without the use of a key or special knowledge or effort. (R311.2)
61. Provide a minimum of 36-in. landing at _____ (R311.3)
62. Required egress doors at _____ shall not swing over a landing that is more than 1.5-in. in height below the threshold. (R311.3.1)
63. Door may open on an exterior landing, provided the door does not swing over the exterior landing and the landing is not more than 7.75-in. below the top of the threshold. (R311.3.1 EX, R311.3.2)
64. For habitable levels or basements located more than one story above or below an egress door, the travel distance from any occupied point to a stairway or ramp shall not exceed 50 feet. (R311.4)
65. Provide section and details of interior and exterior stairway showing:
- a. Maximum rise of 7.75-in. and minimum run (tread) of 10-in. with maximum 3/8-in. variance. (R311.7.5.1, R311.7.5.2)
 - i. Where tread depth is < 11-in. a nosing is required (R311.7.5.3)
 - b. Minimum width of 36-in. (max. 4.5-in. handrail projection is permitted on each side) (R311.7.1)
 - c. Minimum headroom of 6-ft. 8-in. (R311.7.2)
 - d. Framing (stringer, landing, etc.) size, bracing, connections, and footings. (106.4.3)
 - e. Stairways shall be positively anchored to the primary structure without the use of toenails or nails subject to withdrawal. (R311.5)
 - f. Provide a note on the plans "All Stairways shall have an illumination level on tread runs of not less than 1 foot-candle (11 lux)." (R303.7)
66. Winder treads shall have a minimum tread depth of 10-in. @ a point 12-in. from the narrow side, and a minimum tread depth of 6-inches. (R311.7.5.2.1)
67. Spiral Stairways shall meet the following:
- a. Submit shop drawings for spiral stairway showing compliance with Section R311.7.10.1.
 - b. Provide spiral stairway column connections & footing details. (106.4.3)
68. Handrails shall satisfy the following:
- a. Provide a minimum of one continuous handrail on stairways with 4 or more risers and at all open sides. (R311.7.8)

- b. Handrail height shall be 34 to 38 inches above the nosing of treads. (R311.7.8.1)
 - c. Openings between intermediate balusters shall not allow the passage of a 4-3/8-in. diameter sphere. The triangular openings formed by the riser, tread and bottom rail shall not allow the passage of a 6-in. diameter sphere. (R312.1.3 EX 1 & 2)
 - d. Handrail grips shall be either Type I or Type II specified in Section R311.7.8.5.
 - e. Return handrail(s) to newel post or wall. (R311.7.8.4)
69. Provide guards where the open side is more than 30-in. above the floor or grade below at any point within 36-in. horizontally to the edge of the open side. (R312.1.1)
- a. Guard height shall be a minimum of 42-in. (R312.1.2)
 - b. Required guards shall not have openings which allow passage of a sphere 4 inches in diameter. (R312.1.3)
70. Provide connection details of guardrail and/or handrail adequate to support a concentrated load of 200 pounds applied in any direction at any point along the top. (T-R301.5)

VENTILATION

71. Attic Vents shall meet the following: (R806.1, R806.2)
- a. Show ventilation type, size, and location.
 - b. The net free ventilating area shall not be less than:
 - i. 1/150 of the attic space **OR**
 - ii. 1/300 provided a Class I or II vapor retarder is installed on the warm side of ceiling in Climate Zones 6, 7, and 8 **OR**
 - iii. 1/300 provided at least 40% and not more than 50% of the required vent area is located within 3 feet below the ridge or highest point of the space, with the balance of the required ventilation provided by eave or cornice vents.
 - c. Openings shall have corrosion-resistant wire mesh or other approved material with 1/16-in. minimum and 1/4-in. maximum opening.
 - d. A minimum of 1-in. airspace shall be provided between insulation and roof sheathing. (R806.3)
 - e. Unvented attic assemblies shall meet all the conditions in Section R806.4.
72. Under-floor vents shall meet the following requirements: (R408)
- a. Show ventilation type, size, and location.
 - b. One ventilation opening shall be placed within 3-feet of each corner of the building
 - c. The net free ventilating area shall not be less than 1/150 of the crawl-space area.
 - d. Openings shall have corrosion-resistant wire mesh or other approved material with 1/8-in. minimum and 1/4-in. maximum opening.
 - e. Unvented under-floor space shall comply with Section 408.3.

73. Window wells shall be designed for proper drainage by connecting to the building's foundation drainage systems required by section R405.1 or by an approved alternate method. (R310.4.3)

GARAGE AND CARPORT

74. The following is required for the separation of the private garage from the dwelling unit:
- a. Garages beneath habitable rooms shall be separated by no less than 5/8-in. Type X gypsum board. Provide minimum 1/2-in. gypsum board on the garage side elsewhere. (T-R302.6)
 - b. Provide minimum 1/2-in. gypsum board on the garage side of detached garages less than 3-ft. from a dwelling unit or structural members supporting floor or ceiling assemblies. (T-R302.6)
 - c. Doors to the dwelling unit shall be solid wood, solid or honeycomb core steel and not less than 1-3/8-in. thick, or 20-minute rated, unless the dwelling unit and the garage are protected by an automatic fire sprinkler system. Doors shall be self-closing and self-latching. (R302.5.1)
 - d. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. (R302.5.1)
 - e. Garage floor surfaces shall be of an approved noncombustible material, and the area used to park vehicles shall be sloped to a drain or toward the main vehicle entry. (R309.1)
 - f. Floors in garage/carport shall be designed to support a uniformly distributed load of 50-psf or concentrated live loads of 2,000-lbs acting on an area of 20-sq. in for elevated garage floors. (T-R301.5)
 - g. All garage doors are required to have permanent labels indicating the wind pressure rating and include the door manufacturer, door model/series, installation instruction drawing reference number and applicable test standards. (R609.4.1)

VENEER / FIREPLACE

75. Specify and detail the veneer material, thickness, backing, anchorage, footings, and support over openings in accordance with Section R703.8.3.
76. Wood burning fireplace within South Coast Air Basin is prohibited per AQMD's Rule 445. Any exemption to Rule 445 shall be approved by SCAQMD.
77. Masonry fireplaces and chimneys shall be constructed, anchored, supported, and reinforced as required per Sections R1003.2, R1003.3 and R1003.4.
78. All wood beams, joists, studs, and other combustible material shall have a minimum clearance of 2 inches from the front and sides and 4 inches from the back faces of masonry fireplaces. (R1001.11)
79. For Factory-built steel fireplace specify manufacturer, model, and I.C.C./UL number or other approved agency. (R1004.1)

STRUCTURAL

80. Buildings and structures, and all parts thereof, shall be constructed to safely support all loads as *prescribed* in 2023 County of Los Angeles Residential Code. When a building contains structural elements exceeding the limits of or not conforming to the Residential Code, these elements shall be engineered in accordance with 2023 County of Los Angeles Building Code. (R301.1.3)
81. Specify grade and species of framing lumber, type and grade of plywood, design strength of concrete and masonry units, the mix of mortar and grout, the strength of steel, glued-laminated timbers, ASTM designation of structural steel shapes and _____ . (106.4.3)
82. All one- and two-family dwellings and townhouses in Seismic Design Category D₀, D₁ or D₂ shall comply with seismic provisions in Section R301.2.2.
83. Buildings in Seismic Design Category E determined per Table R301.2.2.1.1 shall be designed in accordance with 2023 County of Los Angeles Building Code unless it can be reclassified to a lower SDC per Section R301.2.2.1.2 (R301.2.2.1)
84. A California licensed architect or civil/structural engineer shall approve and stamp construction documents of the following constructions, but not limited to: (R301.1.3.2, R301.1.3.3)
- a. Wood frame construction more than one story in height or with a basement located in Seismic Design Category D₀, D₁ or D₂
 - b. Cold-formed steel construction
 - c. Concrete construction
 - d. Masonry construction
85. Buildings including additions constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with of the 2023 County of Los Angeles Building Code. (R301.1.5)
86. Irregular buildings or portions of a building defined in Section R301.2.2.6 shall be designed by a registered design professional in accordance with 2023 County of Los Angeles Building Code. Design of the remainder of the building is permitted using the provisions of the Residential Code. (R301.2.2.6)
87. Cross-reference all calculations for joists, beams, shear walls, etc., to the structural framing floor plans. (106.4.3)
88. Submit structural calculations and or design details for the following: _____(R301.1.3)
89. The Engineer or Architect of Record shall be designated on the building permit application. (106.4.3)
90. The Engineer or Architect of record shall review, approve, and stamp truss design for loads, location, and suitability for intended use. (R802.10.2)
91. Provide a detailed schedule of "Statement of Special Inspections" on the plans complying with 1704.3.

92. Specify the roof and floor live loads, roof snow loads, wind design data including wind speed and exposure, and earthquake design data including Seismic Design Category and wall bracing method. Include references to design factors and span tables. (R301.1,1603.1)

FOUNDATION

93. The foundation plan does not comply with the soil report recommendation for this project. (106.4.3)
94. The design of foundation and retaining walls supporting backfills shall comply with [Residential Code Manual R404 Art. 1.](#)
95. Note on the foundation plan "Prior to requesting a Building Department foundation inspection, the soils engineer / geotechnical consultant shall inspect and approve the foundation excavations". (106.4.3)
96. Have the consulting soils/geotechnical engineer review and approve the foundation plans and foundation details. (106.4.3)
97. Soil bearing pressure is limited to 1,500-lbs/SF unless soils report recommends otherwise. (T-R401.4.1)
98. Call out foundation bolt size and spacing on foundation plan. The foundation bolts shall be 1/2-in. diameter for SDC D₀, D₁ or D₂, or 5/8-in. diameter for SDC E or F. Foundation bolts shall be embedded at least 7-in. into the concrete or masonry foundation spaced not more than 6-ft. apart and provided with 0.229-in. x 3-in. x 3-in. plate washers.
(R403.1.6, R602.11.1, 2308.6)
99. Detail (and reference location on foundation plan) typical foundation sections for: perimeter walls, interior bearing walls, depressed slabs, foundation common to dwelling and garage, garage entrance, spread and/or post pads. (106.4.3)
100. Concrete or masonry foundation walls shall be designed in accordance with Chapters 19 or 21, respectively.
101. For foundation supporting (1) / (2) floors, sections (12) / (15) inches wide, 6 inches thick and minimum 12 inches in depth below natural ground surface or certified fill grade are required. (T-R403.1 (1), T-1809.7)
102. Provide details for stepped footings when slope of bottom of footing exceeds 1:10 but less than or equal to 1:3. (R403.1.5)
103. Show minimum 18-in. underfloor clearance from grade to bottom of floor joists and minimum 12-in. clearance to bottom of girders. (R317.1)
104. Specify that foundation sills shall be naturally durable or preservative-treated wood. Field-cut ends, notches and drilled holes of preservative-treated wood shall be field-treated per AWPA M4. (R317.1.1)
105. Provide a min. 26-gage weep screed for stucco at the foundation plate line a minimum of 4-in. above the earth or 2-in. above paved areas. (R703.7.2.1)
106. Wood sill plate shall be minimum 8-in. above adjacent grade. (R317.1)

107. Show location of underfloor access crawl hole (18 x 24 inches through a floor or 16 x 24 inches through a perimeter wall). (R408.4)
108. Foundation and floor slabs shall conform to the following requirements, unless an approved soils report indicates that soil is not expansive by the Expansion Index Test method, or recommends other details: (RCM 401.4 Art. 1)
- Continuous footings under exterior walls and interior bearing walls extending below grade 24-in. and 18-in. respectively and below foundation wall crawl hole. Piles or piers are permitted without interconnected grade beams to support first floor loads only. Pad footing located under a reinforced slab within the confines of a perimeter footing need not be connected by a grade beam.
 - Four continuous #4 bars, two 4-in. from bottom and two 4-in. from top of foundation.
 - Floor slab 4-in. thick over two layers of a 2-in. fill of sand and a moisture barrier membrane (10 mils thick) sandwiched between the two layers of fill and reinforced with #4 bars at 16-in. O.C. each way. Reinforcement to be placed at center of slab.
 - Saturate the soil 18-in. deep before placing the concrete slab.
 - Provide #4 dowels at 16-in. O.C. bent 2-ft. into slab and 1-ft. into footing. Dowels may be omitted when slab is a "monopour" or designed as an independent "floating slab."

FRAMING

Roof / Ceiling:

109. Specify the size, spacing and direction of rafters. (106.4.3)
110. The _____" x _____" rafters at _____" O.C. over _____ exceed the allowable span (T-R802.4.1(1)– (8))
111. The size of ridge board, valley, or hip members shall not be less than the cut end depth of the rafter. (R802.3)
112. Roof purlins shall not be smaller than the rafter they support. The maximum span for 2x4 / 2x6 in. roof purlins is 4 / 6 ft. respectively. For purlin supports provide struts not smaller than 2x4 in. spaced not more than 4-ft. on center with an unbraced length not over 8-ft., and not flatter than 45 degrees from the horizontal, to bearing walls. (R802.4.5)
113. Where ceiling joist or rafter ties do not provide a continuous tie, the ridge board shall be supported by a bearing wall, or the ridge beam shall be designed by an engineer (4 x min.) (R802.3)
114. Ridge / hip / valley members shall be designed as vertical load carrying members when the roof slope is less than 3:12. Provide calculations. (R802.4.4)
115. Provide manufactured roof truss profiles, layout plan and calculations from truss manufacturer. (R802.10.1)

116. Wood Trusses shall be connected to wall plates using approved connectors having min. uplift capacity of 200 lbs. and shall be installed per manufacturer's specifications. (R802.11.1)
117. Show ceiling joist size, spacing, and direction on plans. (106.4.3)
118. The _____" x _____" ceiling joists at _____" O.C. over _____ exceed the allowable span. (R802.5 (1) & (2))
119. Rafter ties (min. of 2x4) are required immediately above ceiling joists, which are not parallel to the rafters. Connections shall be in accordance with Tables R802.5.2 or 2308.10.4.1 or equivalent capacities shall be provided. (R802.5.2, 2308.7.3.1)
120. For plywood roof diaphragms, specify thickness, grade, panel span rating, and nailing schedule. (R803)
121. Show blocking at ends of rafters and trusses at exterior walls, and at supports of floor joists. (R502.7, 2308.8.2)
122. Provide a detail for roof deck assembly when rigid insulation is used. (106.4.3)

Floors:

123. Show size, spacing and direction of floor joists. (106.4.3)
124. Joists under parallel bearing partitions shall be of adequate size to support the load. (R502.4)
125. The _____" x _____" floor joists at _____" O.C. at _____ exceeds the allowable span. (T-R502.3.1(1), T-R502.3.1(2))
126. The _____" x _____" floor girder / beam under _____ exceeds the allowable span. (T-R602.7(1), T-R602.7(2))
127. For structural wood panel floor diaphragm specify thickness, grade, T&G edges, panel span rating, nailing schedule, and panel layout pattern. (R503)

Walls:

128. Headers shall be provided over each opening in exterior and interior bearing walls. (T-R602.7 (1)-(3), T2308.4.1.1(1))
129. The _____" x _____" header at _____ exceeds the allowable stress for _____ grade. (NDS T-4-A)
130. Detail is required for header support at the corner window(s) at _____. (106.4.3)
131. Studs in bearing walls are limited to 10-ft. in height unless an approved design is submitted. (T-R602.3(5))
132. Detail lateral support for the top of interior non-bearing walls when manufactured trusses are used. (1607.14)
133. Studs supporting two floors, ceiling, and roof must be 3x4 or 2x6 at 16-in. O.C. (T-R602.3(5), T-2308.5.1)

134. Note the use of full-length studs (balloon frame) on exterior walls of rooms with vaulted ceiling. (2309.1)
135. Provide braced wall lines in accordance with Section R602.10.1. Braced wall panels shall be constructed in accordance with the intermittent bracing methods specified in Section R602.10.2 or the continuous sheathing methods specified in Section R602.10.4. (R602.10)
136. Call out for all post sizes. Elements supporting concentrated loads which transfer forces to members below should be shown as "Post Above" on the second story framing plan and foundation plan. Call out for their locations, connection hardware, and provide applicable details.
137. Provide a detail for shear wall assembly when rigid insulation is used for all interior and exterior applications.

LATERAL DESIGN

138. The lateral design shall be based on the most restrictive of either the wind or seismic forces per LACBC sections 1609 and 1613 respectively, and per R301.2.
139. Wind analysis that does not comply with the conditions of simplified procedure (ASCE 7-22, Chapters 26-31) shall comply with the Analytical procedure.
140. Seismic analysis that does not comply with the conditions of simplified base shear design (ASCE7 12.14) must comply with equivalent lateral force procedure as set forth in ASCE7 12.8.
141. Provide mapped spectral acceleration (MCE) for short periods $S_s = \underline{\hspace{1cm}}$ and at a one second $S_1 = \underline{\hspace{1cm}}$ as determined in accordance with ASCE7 11.4.
142. The Site Coefficients is $F_a = \underline{\hspace{1cm}}$ and $F_v = \underline{\hspace{1cm}}$ in ASCE7 Tables 11.4-1 & 11.4-2.
143. $\rho = 1.3$ except where the conditions of ASCE7 12.3.4.2 are met.
144. Structural Observation is required per Section 1704.6. Photocopy/blueprint the attached L.A.Co. Structural Observation Program form on the plans.
145. The _____ is inadequate to resist lateral forces / uplift wind pressure. Show roof/floor diaphragm nailing, wall bracing, shear connections, tie down hardware and hold-down anchors. Submit lateral design. (1609, 1613)
146. When assuming flexible horizontal diaphragms for lateral force distribution, the base shear and lateral design shall meet the requirements of ASCE7 12.3.1.
147. Walls braced to resist wind and seismic forces shall not exceed the following height to width ratios: 2 to 1 for wood structural panels; 1-1/2 to 1 for gypsum wallboard and Portland cement plaster (stucco). (SDPWS 4.3)

148. Wood structural panel shear walls shall meet the story drift limitation of ASCE7 12.12.1. Conformance shall be determined by testing or calculations. Calculated deflection shall be determined according to Section 2305.3. (ASCE7 12.12.1, ASCE7 T-12.12-1)
149. Portland cement plaster (stucco), gypsum lath and gypsum wall board shear walls shall not be permitted in Seismic Design Category E or F. These walls are only permitted at the top level of wood construction in Seismic Design Category D. (2306.7, T-2306.7)
150. Nominal shear values for shear walls framed with cold formed steel studs shall be justified by complete, accurate analysis or tests. (2210.6)
151. If required by structural calculations, show size, location, and embedment length of hold-down anchors on foundation plan. Note on the plans "Hold-down hardware must be secured in place prior to foundation inspection." (106.4.3)
152. Provide referenced calculations showing the overturning moments in all shear wall segments. (SDPWS 4.3.6)
153. The capacity of hold-down connectors that do not consider cyclic loading of the product shall be reduced to 75% of the allowable earthquake load values. (2305.5)
154. Note on the plans "Hold-down connector bolts into wood framing require 0.229-in. x 3-in. x 3-in. plate washers on the post opposite the hold-down," and "Hold-downs shall be tightened to finger tight plus one-half wrench turn just prior to covering the wall framing." (2305.5)
155. Detail the shear transfer connections that transfer lateral forces from horizontal diaphragms through intermediate elements and shear walls to the foundation. (106.4.3)
156. Specify on the framing plans the shear wall material and thickness and the size and spacing of fasteners and sole plate nailing. Call out anchor bolt spacing that is compatible with the shear wall capacity. (106.4.3)
157. The maximum allowable shear for 3/8-in. structural panel resisting seismic forces is 200 lb./ft. (2306.3)
158. Wood structural panels in shear walls shall be at least 3/8-in. thick and studs spaced no more than 16-in. O.C. (2306.3)
159. Columns, beams, trusses, or slabs supporting discontinuous walls or frames of structures having horizontal irregularity Type 4 per ASCE7 T-12.3-1 or vertical irregularity Type 4 per ASCE7 T-12.3-2 shall have the design strength to resist the maximum axial force that can develop in accordance with overstrength factor of ASCE7 12.4.3.2. (ASCE7 12.3.3.3)
160. Detail how the interior shear walls or lateral force resisting elements are connected to the roof / floor diaphragm(s). (106.4.3)
161. Provide a drag strut at _____
_____. Show details of strut and top plate connections. (106.4.3)
162. For shear walls with openings design the force transfer around the openings per SDPWS Section 4.3.5.2.

MECHANICAL/ELECTRICAL/PLUMBING/ENERGY

163. Show location of Forced Air Unit (F.A.U.) / Return Air Grill / Water Heater on floor plan. (106.4.3)
164. F.A.U. is not permitted in attic of prefabricated trusses unless required F.A.U. clearances are clearly detailed on the plans. (106.4.3)
165. Clothes dryer moisture exhaust duct must be 4-in. in diameter and length is limited to 14-ft. with 2 elbows. The duct length shall be reduced by 2-ft. for every elbow in excess of two. (MC 504.4.2)
166. Show location of the attic appliances (furnace, fan, coil...) and passageway 24-in. wide of solid continuous flooring from access to equipment and its controls. Length of the passageway shall not exceed 20-ft. (MC 304.4)
167. Show how appliances (water heater, clothes dryer, furnace...) installed in garage will be protected from automobile damage (wheel blocks are not sufficient). (MC 305.1)
168. Heating appliances (water heater, furnace...) located in garage shall be installed so that all burners and burner ignition devices are installed at least 18-in. above the floor. (MC 305.1)
169. For open top broiler / barbecue unit, show details of mechanical exhaust system (hood, duct and one-hour shaft), when penetrating ceiling or floor. (MC 920)
170. Specify total load of new service panel. Electrical plan check is required if service or load exceeds 400 amps, 120/240 V, single phase. Electrical panel shall not be installed in required shear wall. Show location on site and floor plans. (ECM 82.8)
171. Where the electrical service is located in / on the attached garage and a furred garage wall is the method used to run the non-metallic-sheathed cables to the residence thru the fire wall, provide a detail showing how the penetration will be fire stopped. (EC 300.21)
172. All 120-volt, single phase, 15- and 20-amp branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6). The arc fault circuit interrupter shall be installed in a readily accessible location. (EC 210.12)

173. For each dwelling unit, install a listed raceway and a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed attachment plug in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible, or concealed areas and spaces. The service panel and/or subpanel shall provide a 40-ampere minimum dedicated branch circuit and a branch circuit overcurrent protection device. (LACGBC 4.106.4.1)
174. For all new one- and two-family dwelling units, the service panels and/or sub panels shall have the capacity of an additional load not less than 5 kVA for every 2,000 square feet of living space, designated to accommodate future energy storage system(s). This load shall be considered continuous and demand factors shall not apply. Additionally, the service panels and/or sub panels shall have space(s) reserved/dedicated to permit installation of the branch circuit overcurrent protective device(s) for the energy storage system. (LACEC 220.41)
175. All showers and tub-showers shall have a pressure balance, thermostatic mixing valve, or a combination pressure balance/thermostatic mixing type valve. (PC 408.3)
176. All new, replacement and existing water heaters shall be strapped to the wall in two places. One in the upper 1/3 of the tank and one in the lower 1/3 of the tank. The lower point shall be a minimum of 4-in. above the controls. (PC 507.2)
177. In compliance with the 2023 County of Los Angeles Plumbing code, indicate the following notes on the plans:
- a. Dual waste piping shall be installed to permit the discharge from clothes washers, bathtubs, showers, and bathroom/restroom wash basins to be used for a graywater irrigation system. (PC 304.1)

Exceptions:

 - (1.) Buildings with a graywater system, rain catchment system or recycled water system.
 - (2.) Sites with landscape areas not exceeding 500 square feet.
 - (3.) Projects where graywater systems are not permitted due to geological conditions.
 - (4.) Additions and alterations that use the existing building drain.
 - b. A hot water recirculation system shall be installed, as defined in Chapter 2 of Los Angeles County Plumbing Code and shall not allow more than 0.6 gallons of water to be delivered to any fixture before hot water arrives. Hot water recirculation systems may include, but are not limited to, the following: (PC 601.2.2)
 - (1.) Timer-initiated systems.
 - (2.) Temperature sensor-initiated systems.
 - (3.) Occupancy sensor-initiated systems.
 - (4.) Smart hot water recirculation systems.
 - (5.) Demand hot water recirculation systems.
 - (6.) Other systems acceptable to the Authority Having Jurisdiction.
- An individual water meter or submeter shall be provided for each dwelling unit in newly constructed multi-unit rental apartment, condominium structures and in residential portion of newly constructed mixed-use structures. (PC 601.2.1 & 601.2.1.1)
178. At least one of the following shall be provided to demonstrate compliance with energy storage system ready dwellings. Please detail compliance on plan as specified in CEnC Section 150.0(s)1:
- a. ESS ready interconnection equipment with a minimum backed-up capacity of 60 amps and a minimum of four ESS-supplied branch circuits, or;
 - b. The future location of a system isolation equipment/transfer switch and ensure a clear space be reserved to allow installation within 3 feet of the main panelboard.
179. Add the following note on plan, per CEnC Section 150.0(s)2; ““A minimum of four branch circuits shall be identified and have their source of supply collocated at a single panelboard suitable to be supplied by the ESS. At least one circuit shall supply the refrigerator, one lighting circuit shall be located near the primary egress and at least one circuit shall supply a sleeping room receptacle outlet.”
180. Revise the plans to provide an electrical panel board with a minimum busbar rating of 225-amps. [CEnC 150.0(s)3]
181. For the future energy storage system, sufficient space shall be reserved to allow future installation of a system isolation equipment/transfer switch within 3 feet of the main panelboard. Raceways shall be installed between the panelboard and the system isolation equipment/transfer switch location to allow the connection of backup power source. Demonstrate compliance on plan. [CEnC 150.0(s)4]
182. Add notes on plan to clarify which appliances will be gas or electric. Where appliances such as the cooking range, dryer, etc. are electric, please provide a dedicated 220-volt receptacle outlet on the plan to serve the appliance.
183. Systems using gas or propane furnace to serve individual dwelling units shall include the following to be heat pump space heater ready per CEnC Section 150.0(t):
- a. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the furnace and accessible to the furnace with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.

- b. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future heat pump space heater installation. The reserved space shall be permanently marked as "For Future 240V use."
184. Systems using gas or propane cooktop to serve individual dwelling units shall include the following to be electric cooktop ready per CEnC Section 150.0(u):
- a. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the cooktop and accessible to the cooktop with no obstructions. The branch circuit conductors shall be rated at 50 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
 - b. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric cooktop installation. The reserved space shall be permanently marked as "For Future 240V use."
185. Clothes dryer locations with gas or propane plumbing to serve individual dwelling units shall include the following to be electric clothes dryer ready per CEnC Section 150.0(v):
- a. A dedicated 240 volt branch circuit wiring shall be installed within 3 feet from the clothes dryer location and accessible to the clothes dryer location with no obstructions. The branch circuit conductors shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready." All electrical components shall be installed in accordance with the California Electrical Code.
 - b. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric clothes dryer installation. The reserved space shall be permanently marked as "For Future 240V use."
186. A local mechanical exhaust system shall be installed in each kitchen and bathroom in accordance with CEnC Section 150.0(o)1G. The following needs specific notes or details on plans to demonstrate compliance (general notes will not suffice):
- a. Nonenclosed kitchens shall have demand-controlled mechanical exhaust. The demand-controlled mechanical exhaust shall comply with Section 150.0(o)1Giii.
 - b. Enclosed kitchens and bathrooms may be provided with either a demand-controlled exhaust or continuous mechanical exhaust. Specify which will be provided on plan.
187. Where demand-controlled mechanical exhaust is provided in the kitchen or bathrooms, use CEnC Table 150.0-E and Table 150.0-G to size the airflow rate. Clearly indicate the required airflow rate on the plans based on the tables. General notes will not suffice to address this code requirement
188. For residential energy water heating, systems using gas or propane water heaters shall designate a 2.5-foot by 2.5-foot and 7-foot tall space suitable for the future installation of a heat pump water heater. Clearly detail the space on plan. [CEnC 150.0(n)1]
189. If the designated space for the residential energy water heating system is within 3 feet from the water heater, then this space shall include the following per CEnC Section 150.0(n)1A:
- a. A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater and accessible to the water heater with no obstructions; and
 - b. Both ends of the unused conductor shall be labeled with the word "spare" and be electrically isolated; and
 - c. A reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit in A above and labeled with the words "Future 240V Use"; and
 - d. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance
190. If the designated space for the residential energy water heating system is more than 3 feet from the water heater, then this space shall include the following per CEnC section 150.0(n)1B:
- a. A dedicated 240 volt branch circuit shall be installed within 3 feet from the designated space. The branch circuit shall be rated at 30 amps minimum. The blank cover shall be identified as "240V ready"; and
 - b. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future HPWH installation. The reserved space shall be permanently marked as "For Future 240V use"; and
 - c. Either a dedicated cold water supply, or the cold water supply shall pass through the designated HPWH location just before reaching the gas or propane water heater; and
 - d. The hot water supply pipe coming out of the gas or propane water heater shall be routed first through the designated HPWH location before serving any fixtures; and
 - e. The hot and cold water piping at the designated HPWH location shall be exposed and readily accessible for future installation of an HPWH; and
 - f. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance.

