



# CITY OF NEWPORT BEACH

## COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION

100 Civic Center Drive | P.O. Box 1768 | Newport Beach, CA 92658-8915  
[www.newportbeachca.gov](http://www.newportbeachca.gov) | (949) 644-3200

### ELECTRICAL / MECHANICAL / PLUMBING PLAN REVIEW COMMENTS

**Project Description:**

**Project Address:**

**Plan Check No.:**

**Permit App. Date:**

**Permit Expires:**

**Use:**

**Occupancy:**

**Const. Type:**

**No. Stories:**

**Permit Valuation**

**Applicant/Contact:**

**Phone:**

**Plan Check Engineer:** Oliver Daluz  
[ODaluz@NewportBeachCA.gov](mailto:ODaluz@NewportBeachCA.gov)

**Phone:** (949) 644-3271

<b>X</b>	<b>1<sup>st</sup> Review:</b>	date		<b>2<sup>nd</sup> Review:</b>	<i>Italic comments</i>		<b>3<sup>rd</sup> Review:</b>	<b>By Appointment</b>
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**The project plans were reviewed for compliance with the following codes and standards:**

2022 CRC; 2022 CPC; 2022 CEC; 2022 CMC; 2022 Building Energy Efficiency Standards (BEES);  
2022 California Green Building Standards Code (CAL Green); & Chapter 15 of the Newport Beach  
Municipal Code (NBMC).

**The code section references are from the 2022 CRC, unless otherwise stated.**

- **TO EXPEDITE PROJECT APPROVAL:** Please provide a written response indicating how and where each comment was resolved on the plans.
- Resubmit all previously reviewed plans, updated plans and supporting documents with each subsequent review.
- **AFTER 2<sup>nd</sup> PLAN REVIEW:** Please call the plan check engineer listed above to schedule a plan review appointment, to expedite project approval.
- For clarification of any plan review comment, please call the plan check engineer listed above.
- Plan review status is available online at [https://css.newportbeachca.gov/EnerGov\\_Prod/SelfService#/home](https://css.newportbeachca.gov/EnerGov_Prod/SelfService#/home). Project status is also available using the interactive voice response system at 949-644-3255, or by speaking with a permit technician at 949-718-1888 during business hours.

## **ELECTRICAL**

1. All plans and electrical calculations are to be designed by a licensed professional; provide stamp with signature and expiration date, or provide signature of licensed design building electrical contractor.
2. Add note to electrical plans, "All work to comply with 2022 Calif. Electric Code."
3. Add note to plans, "Comply with City of Newport Beach amendments to 2022 CEC. Use rigid metal conduit in all areas exposed to weather. Use ground wire inside all flexible metal conduits. Metal conduit shall not be installed in contact with earth."
4. Clearly note on the plans in the deferred submittal section, "Solar PV system plans are required for this project and must be submitted and approved prior to the roof sheathing inspection."
5. Note on plans "Use ground wire inside all flexible metal conduits. Metal conduit shall not be installed in contact with earth."
6. Show capacity and location of electrical panel on plans. Minimum main panel busbar rating shall be 225 A. Electrical panels are not permitted in closets, bathrooms, and pantries. Note on plans, "SCE shall approve the location of the main electrical panel prior to its installation."
7. Provide subpanel (minimum 60 A) with at least four (4) branch circuits to be supplied by future energy storage system (ESS). At least one dedicated circuit shall supply each of the following: refrigerator, lighting near main egress, receptacles within sleeping room. Subpanel is allowed to be supplied by utility service until the installation of future ESS. BEES 150.0(s)1 & 2
8. Include dedicated space to allow future installation of a system isolation equipment/transfer switch within 3 feet of the main service panel. Conduits shall be installed between the MSP and the system isolation equipment/transfer switch location to allow the connection of backup power source. BEES 150.0(s)4
9. Provide residential load calculations on plans to determine the service and feeder sizes. CEC 220.
10. Note on plans to provide unique circuit descriptions on panel schedule. CEC 408.4
11. Provide single line diagram; show electrical panel load schedules, conduit and conductor sizes and ground electrode detail.
12. Provide electrical panel load schedules on plans.
13. Show grounding electrode system and disconnect for each separate building. CEC 230.
14. Show all required clearances in front of electrical services / panels / equipment.
15. Indicate required locations for electrical outlets per CEC 210.52.
16. For kitchen ranges supplied by natural gas, include a dedicated 240 V, 50 A (minimum) circuit for 3 feet from kitchen range. Label blank cover "240 V ready".
17. For clothes dryer supplied by natural gas, include a dedicated 240 V, 30 A (minimum) circuit for 3 feet from clothes dryer. Label blank cover "240 V ready".
18. Provide receptacle outlet w/ GFCI protection for servicing all HVAC equipment (outdoors, attic, etc.). For areas where HVAC equipment is located in attic, crawl space or utility room, include lighting outlet near equipment.
19. Provide either one 240 V branch circuit or reserved space on panel w/ listed raceway for future installation of level 2 EV charging equipment. CAL Green 4.106.4.1
20. Provide GFCI protection on all 125 V receptacles in bathrooms, garages, and basement areas.
21. Provide artificial lighting for areas that do not comply with natural lighting. CRC R303.1
22. Detail hanging light fixture out of tub zone. CEC 410.10(D)
23. Provide arc-fault circuit interrupter (AFCI) combination type protection on branch circuits serving outlets in dwelling units.

24. All 15 and 20 amp 125 V receptacles are required to be listed tamper resistant. CEC 406.11 and 210.52.
25. Show lighting around pool in compliance with article 680 NEC for lighting in pool areas. CEC 680.22 (adjacent transformers must be listed for swimming pool use.)
26. Vented gas fireplaces shall not be installed in bathrooms or bedrooms unless the appliance is listed as direct-vent fire place or complying with section 701.4 of CMC 2022. Smoke detection and Carbon Monoxide detectors are required in bedrooms with fireplaces or FAU closets"
27. Provide equipotential bonding details per CEC 680.26 on plans.

## **MECHANICAL**

28. All plans and mechanical calculations are to be designed by a licensed professional. Provide stamp with signature and expiration date or provide signature of licensed design building mechanical contractor.
29. Identify fire-rated, walls, ceilings and floor assemblies on the mechanical plans to verify appropriate provisions for the fire penetration protection. Provide specific listed through penetration fire stop system details on plans for the specific penetrations of fire resistive wall/floor/ceiling assemblies.
30. If AC is not to be provided, then include the following note within the Title page of the plans, "Exterior condensing units (AC) is not part of this plan check or permit. A separate submittal and permit are required, prior to installing any electrical or refrigeration lines, and such submittal must illustrate compliance with the City of Newport Beach Municipal Code section 10.26.045."
31. Clearly note on the plans near the deferred submittal section, "Heat pumps providing heating to habitable space is not allowed to use timer(s) to justify compliance with the City noise ordinance."
32. Sound analysis must be submitted for outdoor heat pump unit. See Newport Beach standard plan for reference:  
<https://www.newportbeachca.gov/home/showpublisheddocument/10620/637551187908570000>  
Include the following note within the Title page of the plans,  
"Exterior condensing units (AC) is not part of this plan check or permit. A separate submittal and permit are required, prior to installing any electrical or refrigeration lines, and such submittal must illustrate compliance with the City of Newport Beach Municipal Code section 10.26.045."
33. Provide RCL (refrigeration concentration limit) calculation for VRF systems. Calculation shall be based on the smallest volume space/room for their respective VRF system. Indicate refrigerant type (R410A) and total refrigerant within each system. CMC 1104.2, Table 1102.3
34. Provide outside air ventilation design for areas that do not comply with natural ventilation. R303.1.
35. Show complete distribution system of the plans. Show all size and type of ducts and sheet metal thickness and R value of insulation materials used. Note: Min R-8 insulation for un-conditioned space.
36. Show all location of HVAC equipment on plans. Ductwork and piping shall be separate for each unit and shall never cross separation walls.
37. Show roof access to HVAC equipment on roof.
38. Provide a min 30 by 30 level work platform for equipment on roofs with a slope 4 and 12 or more 304.2.
39. Show location of fan coil and condensers on plans.
40. Provide combustion air requirements and sizes for equipment located in confined spaces. Provide calculations on plans per chapter 7.
41. Provide mechanical equipment schedule identifying the equipment manufacturer and model numbers with specifications.

42. Provide mechanical Title 24, 2022 Calif. Energy Efficiency Standards forms. All required compliance forms and mandatory measures are to be on the plans.
43. All exhausts and their termination points including dryer, cooking hood and toilet exhausts must be shown on plans. Clothes dryer vents exceeding 14 feet are to be engineered. Dryer duct termination must be 3 feet clear from openings into the building (doors and operable windows) per section 504.5 CMC.
44. Provide min 100 square inch make up air grill for laundry room CMC 504.4.1.
45. Provide exhaust fan in bathroom. R303.3.1.
46. Return air is not allowed in bathroom. CMC 311.3
47. Roof details will be required for exhaust system / show location and dimensions of all terminations.
48. Indicate the required location and size of the access and workspace for the FAU and roof top AC equipment per section CMC.
49. Provide the following note on the plans, "Barbecue shall not be installed under combustible construction and must be installed per the manufacturer's installation instructions that bears the listing agency's logo." Type I hood is required for grease and smoke. Hoods with fans may require non or limited combustible construction requirements per section 507.2 California Mechanical Code (CMC) along with a rated shaft in section 510.7. Also, plans must illustrate compliance with section 921 CMC.
50. Obtain planning and building plan check approval for roof top equipment. Screening is typically required and needs to be designed. Coordinate locations with architect.
51. Roof top equipment must be on a level platform. CMC 304.2. and sub sections.
52. Show access to roof per CMC 304.3.1. Coordinate with architect.
53. Show attic access to attic equipment. CMC 304.4 and sub sections.
54. Show support and anchoring design on plans for mechanical equipment. ASCE-7-16 chapter 13. Coordinate with structural designer. Mechanical plans to reference structural details. Show seismic restraint for HVAC systems on plans. CMC 603.3.3.
55. Coordinate the amount of A/C units per the T24 energy calculations (CF1R).

## **PLUMBING**

56. All plans and plumbing calculations are to be designed by a licensed professional. Provide stamp with signature and expiration date or provide signature of licensed design build plumbing contractor.
57. Add note to plumbing plans, "All work to comply with 2022 California Plumbing Code."
58. Provide complete drain and vent system drawings / riser diagrams for sewage ejector system. Complete isometric DWV diagram is required. Provide listed pressure pipe for sewage ejectors. Show pipe sizes for DWV to pumps.
59. Show intended size of all sewer / waste lines / vents, for sewage ejector system.
60. Show size of all water supply lines / provide calculations, CPC 610.
61. Insulate all hot water lines. Specify on plans per CPC 609.11. Also, see Cal Energy Code, Table 120.3-A
62. Show type and location of all backflow protection. CPC 603.0
63. Provide gas piping isometric to scale with pipe sizes and equipment demands BTU/HR, CFH with total developed lengths of gas piping including branches per Tables 1215.2.
64. Show location and type of water heater / boiler.
65. Provide water heater venting detail and temperature pressure piping discharge location and exterior grade or floor sink. Safety pan to discharge to exterior observable location.

66. Provide expansion tank for hot water / water heater system. CPC 608.3
67. Provide seismic restraint detail for water heater / boiler.
68. Provide approved permanent access to water heater / boiler.
69. Note combustion air requirements for gas fired water heater / boiler.
70. Show location and size of all sanitary waste cleanouts.
71. Note on plans that all waste lines to be minimum 2% slope.
72. Provide roof and deck drainage waste and vent isometrics. Such drains must connect to the area drainage system. Coordinate requirements on the civil grading and drainage plan. Roof and deck drains shall have scuppers or overflow drains. Plans must illustrate compliance with section R903.4.1 CRC o/flow drain same size 2" above or 3x with minimum 4" height for scupper.
73. Indicate the location of the existing sewer lateral. Since the lateral will serve four water closets a 4" minimum line is required from the fourth connection to the public line. Show the run and connection point of the new sewage drain line. 703.0 CPC.
74. On piping material schedule, note that ABS and PVC for DWV and rain water systems are limited to no more than two stories of residential accommodation. CPC 701.2 (a), CPC 903.1.1,1101.4.
75. Coordinate with structural designer to show location of the sewage ejector and sump pump on the structural (shoring) plans.
76. Coordinate the amount of water heaters per the T24 energy calculations (CF1R).
77. Show how gas line is going to get to pool equipment.
78. NBMC 15.10.120 E. Disposal #5 Permanent sump pump discharges may be permitted as follows:  
Permitted sump pump discharge shall be filtered and piped directly to the City's storm drain system. Connections to the City's storm drain shall be in accordance with City standards and executed under a valid encroachment permit from the Public Works Department.
  - a. The permittee and the City have executed a non-standard permit agreement which authorizes the City to revoke the permit at any time for noncompliance.
  - b. Discharges from permanently installed sump pumps of basement garage spaces (areas with motor vehicle storage) shall not be permitted within the public right-of-way.
  - c. Storage areas and living areas below natural grade as permitted by the Building Division may discharge sump pump flow into the City's street drainage system provided that:
    - i. The property owner show evidence of all approved permits as required by the Regional Water Quality Control Board and other jurisdictional agencies;
    - ii. The discharge flow must not be continuous and be shown to be less than five gallons per day; and
    - iii. The permitted flow shall not create continuous standing water within City street gutters, pose a hazard to safe motor vehicle or pedestrian use, or create a nuisance such as odor or algae growth.

### **ADDITIONAL COMMENTS**

79. See red marks on plans for additional comments and clarifications.