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 | (949) 644-3200

RESIDENTIAL
PLAN REVIEW COMMENTS & CORRECTIONS

Project Description:		
Project Address:		**Plan Check No.:**
Permit App. Date:		Plan Check. Expires:
Use:	Occupancy:	Const. Type:
No. Stories:	Permit Valuation:	Adjusted Valuation:
Architect/Engineer:		Phone:
Applicant/Contact:		Phone:
Plan Check Engineer:		**Phone: 949.644.**
Engineer email:	**@newportbeachca.gov**	

X	1st Review: (date)		2nd Review: (date) *Italic comments*		3rd Review: (date) **By Appointment**

The project plans were reviewed for compliance with the following codes and standards:

2019 CRC; 2019 CBC; 2019 CPC; 2019 CEC; 2019 CMC; 2019 California Energy Code; 2019 California Green Building Standards Code (CG); & Chapter 15 of the Newport Beach Municipal Code (NBMC).

The code section references are from the 2019 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 2nd PLAN REVIEW*: Please call or email 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 *www.newportbeachca.gov*. 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.

GENERAL

1. Obtain plan review approval from the following:
   a. Building Division
   b. Fire Department
   c. Planning Division
   d. Public Works Department
2. Final drawings which will be approved for permit issuance shall be signed by the respective design professional on each sheet (electronic signature is acceptable).
3. Include the following on all plan sheets in the title block:
   a. Site address
   b. Plan preparer's name, address, and telephone number
4. Provide property owner's name, address, and telephone number on cover sheet. Also, provide project description for complete scope of work and list all the applicable codes in the title sheet. Scope of work to include square footage of existing residence, remodeled area, and new additions.
5. Include basic project information on the cover sheet including: Use, Occupancy Category, Number of Stories, Type of Construction, and if the building is Sprinklered or Not Sprinklered.
6. All permits related to the proposed project shall be issued at the same time, or, separate plans and plan review will be required for items not issued with this review. Provide additional permit worksheets for the following:
   a. Accessory structures, detached patio covers, and trellises or gazebos
   b. Masonry or concrete fences over 3.5 ft above grade, or, within 3 feet of the property line
   c. Retaining walls over 4 ft. high from the bottom of the foundation to the top of the wall and any retaining wall within 3 ft. of property line regardless of height.
   d. Electrical and Plumbing for exterior improvements detached from the house (i.e. barbeque, fountain, fire feature)
7. Provide fully dimensioned plot plan to scale. Show lot dimensions, street, alley, easements, all projections, and location of all structures with distances to property lines.
8. Write a note on plans:
   a. "A Cal-OSHA permit is required for excavations deeper than 5' and for shoring and underpinning."
   b. The maximum time to complete construction on a project is limited to three years from the date of the permit for all permits issued after August 21, 2019 as required by NBMC Section 15.02.095.
9. Provide evidence of the 30-day notification for complete demolition or excavation to adjoining properties as required by NBMC Section 15.02.120.
10. Provide a project information sign for projects requiring fencing (new structure or addition and remodel to an existing structure with a combined floor area exceeding seventy-five (75) percent of the floor area of the proposed structure) in designated "High Density Areas". Project sign shall comply with NBMC Section 15.60.030.
11. Projects located within a "High Density Area" require the following form, *https://www.newportbeachca.gov/Home/ShowDocument?id=64600* reproduced on the title page of the plans with the owner's and contractor's signatures.
12. Incorporate RESIDENTIAL CONSTRUCTION MINIMUM REQUIREMENTS specification into plans and update plans to comply with the requirements. Form available online at: *http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=11141*
13. Incorporate CALGREEN RESIDENTIAL MINIMUM REQUIREMENTS specification into plans and update plans to comply with the requirements. Form available online at: *http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=11142*
14. For minor drainage alterations, provide City Standard Drainage Plan (a full-sized copy can also be picked up at the counter). Form available online at:

    https://www.newportbeachca.gov/home/showdocument?id=10618

15. Structural condition of seawall and tiebacks shall be investigated by a registered engineer and the necessary repairs shall be done in conjunction with building a new structure. Separate submittal and permit is required for repair. NBMC 21.30.015(E.3) *https://www.codepublishing.com/CA/NewportBeach/#!/NewportBeach21/NewportBeach2130.html#21.30.015*

    Exception: Seawalls around Balboa Island.

LIGHT & VENTILATION

16. Exterior glazed openings of habitable rooms for natural light shall be minimum 8% of the room floor area. Artificial lighting may be used in lieu of natural lighting. R303.1

17. Openable ventilation area of habitable rooms must be 4% or more of the room floor area. In lieu of exterior openings for habitable rooms, a mechanical ventilating system meeting the California Mechanical Code requirements may be provided. R303.1

EXTERIOR WALLS

18. Exterior walls of dwellings, guesthouses, garages, carports and/or accessory structures closer than 5 ft. (3 ft. if sprinklered) to the property line shall be 1-hour fire-resistance-rated construction. Table R302.1(1) and (2). Fire-rated assemblies shall be one of the following:

    a. Listed in GA-600 (Gypsum Association Fire Resistance Design Manual)
    b. Per 2019 CBC, Table 721.1(2)
    c. Other tested and listed assembly by an approved listing agency

    Provide approved assembly (including attachments) detail on plan.

19. No openings are permitted in the exterior walls, including vents, of Group R-3/U occupancies where the exterior wall is closer than 3 ft. to the property line. Table R302.1(1) and (2)

20. Where the exterior walls of non-sprinklered group R-3/U occupancies are located between 3' and 5' from the property line, the total area of protected and unprotected openings (including vents) is limited to 25% of the wall area on each floor (not including garage wall). Provide area calculations on exterior elevations. Table R302.1(1) and (2)

21. Eaves are not permitted in group R-3/U occupancies closer than 2' to the property line. Dimension all eave-to-property-line distances on plans and sections. Projections in sprinklered structures located between 2' and 3' from the property line (and between 2' and 5' from the property line in non-sprinklered structures) shall be of at least 1-hour fire-resistance-rated construction or heavy timber. The roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if solid fire blocking is provided from the wall top plate to the underside of the roof sheathing. Table R302.1(1) and (2)

22. Exterior stairways with one open side serving as an element of a required means of egress are not permitted closer than 3 ft. to the property line. Open side of exterior stair plus other openings on the secure exterior wall shall be limited per Table R302.1(1) and (2).

MEANS OF EGRESS

23. In every bedroom, habitable attic, and basement containing habitable space (except basements housing only mechanical equipment space not exceeding 200 sq. ft.) provide an emergency escape and rescue opening meeting all of the following: R310

    a. A net clear opening area of not less than 5.7 sq. ft. (5.0 sq. ft. for grade – floor window).
    b. Minimum clear opening height of 24".
    c. Minimum clear opening width of 20".
    d. The bottom of window opening shall not be more than 44" from the floor.
    e. Shall open directly into a public way, or, to a yard or court that opens to a public way. Yard or court must comply with the definition: "An open space, unobstructed from the ground to the sky." Therefore, ingress/egress openings which open under or onto decks, roofs, or covered patios are not acceptable. R310.1
    f. Window control opening device shall not reduce the required net clear opening area of the window. R 312.2.2.
    g. Provide a well for escape window from basement.

h. Area of window well to be 9 sq. ft. minimum with 3' minimum dimension.
i. Provide a ladder from window well if deeper than 44".

24. Provide a minimum of one exit doorway not less than 3' wide and 6'-6" in height with a minimum clear width of 32". R311
25. Landing lengths at all exterior doors shall be a minimum of 36" in the direction of travel. R311.3
26. For habitable levels or basements located more than one story above or more than one story below an egress door: The maximum travel distance from any occupied point to a stairway or ramp that provides egress from such habitable level or basement shall not exceed 50'. R311.4
27. Landings or finished floors at the required egress door shall not be more than 1½" lower than the top of the threshold. The exterior landing or finished floor shall not be more than 7¾" below the top of the threshold provided the door does not swing over the lower landing or floor. R311.3.1
28. Provide section and details of interior and exterior stairway showing:
    a. Maximum rise of 7¾" and minimum run (tread) of 10". R311.7.5
    b. Provide a nosing between 0.75" and 1.25" on stairways with solid risers where tread depth is less than 11". R311.7.5.3 and Exception 1
    c. Minimum clear width of 36". R311.7.1
    d. Minimum headroom of 6'-8". R311.7.2
    e. Alternating tread devices and ship ladders shall not be used as an element of a means of egress. R311.7.11 and R311.7.12
29. Winder treads:
    a. Shall have a minimum tread depth of 10" at a point 12" from the narrow side. R311.7.5.2.1 and R311.7.4
    b. Shall have a minimum tread depth of 6" at any point within the clear width of the stair.
30. Spiral stairways shall comply with the following requirements: R311.7.10.1
    a. Maximum rise of 9½" and minimum run (tread) of 6.75" at 12" from narrow edge
    b. Minimum clear width of 26"
    c. Minimum headroom of 6'-6"
    d. Provide spiral stairway column connections and footing details on plans.
31. 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" above the nosing of treads. R311.7.8.1
    c. Handrail with circular cross-sections shall have a diameter of 1¼" to 2". R311.7.8.5 item 1.
    d. Handrails with other than circular cross-sections shall have a perimeter of 4" to 6¼" with a maximum cross-section dimension of 2¼". R311.7.8.5 item 1
    e. Handrails with a perimeter greater than 6¼" shall comply with R311.7.8.5 item 2.
    f. Handrail shall be continuous without interruption by newel post or other obstruction, except at the landing, volute, or turnout on lowest tread. R311.7.8.4, Exception 1 & 2.
    g. Clear space between handrail and wall shall be 1½" minimum. R311.7.8.3
32. Guards (guardrails) shall meet the following:
    a. Provide guards where the open side is more than 30" measured vertically to the floor or grade below at any point within 36" horizontally to the edge of the open side. R312.1.1
    b. Guard height shall be a minimum of 42". R312.1.2
    c. Openings between intermediate balusters shall preclude the passage of a 4" diameter sphere. R312.1.3
    d. The triangular openings formed by the riser, tread, and bottom rail shall preclude the passage of a 6" diameter sphere. R312.1.3, Exception 1.
    e. Openings between intermediate balusters on the open side of stairs shall preclude the passage of a 4-3/8" diameter sphere. 312.1.3, Exception 2.
33. Provide connection calculations and details for all guardrails to withstand a 200-lb force at top of the railing acting in any direction, and min 50-lb per linear foot for intermediate guard components. The loads are not required to be cumulative.

CONSTRUCTION

34. Townhouses shall comply with Section R302.2 with 1-hour common wall construction for sprinklered buildings and 2-hr for non-sprinklered buildings. Common walls shall be without plumbing or mechanical equipment, ducts, or vents in the cavity of the common wall.
35. For duplexes and townhouses provide the following:
    a. Floors and walls separating dwelling units in the same building shall not be of less than 1-hour fire-resistive rated construction. R302.3
    b. Provide sound transmission ratings (STC) not less than STC 50.
36. Where floor assemblies are required to be fire-resistance rated, the supporting construction of such walls shall have equal or greater fire-resistive-rating. R302.3.1
37. Where a window sill is located higher than 72" above adjacent grade or finished surface on the opposite side, the lowest part of the opening shall be 24" minimum above the room finish floor surface. Operable sections of window shall not permit openings that allow passage of 4-inch sphere where such openings are located within 24" of the finished floor. R312.2.1
38. One-hour wall assemblies shall extend from the foundation to the underside of the roof. R302.3
39. Net area of shower enclosure shall be not less than 1,024 sq. inch (7.1 sq. ft.) of floor area, and, a minimum of 30 inches diameter circle. CPC 408.6
40. Show attic ventilation type, size, and location. Vents shall meet the following requirements: R806.2
    a. Openings shall be placed so as to provide cross ventilation of the attic space.
    b. The net free ventilating area shall not be less than 1/150 of the attic area.
    c. Openings shall have corrosion-resistant wire mesh or other approved material with 1/16" minimum and ¼" maximum opening.
    d. 50% of the required ventilation area must be located at least 3 ft. above eave or cornice vents with the balance provided by eave or cornice vents.
    e. Where the ratio of 1/300 is used to vent the attics, not less than 40% but not more than 50% of the vents shall be located not more than 3 ft. below the ridge.
41. Unvented enclosed rafters and decks shall comply with CRC Section R806.5. Provide construction detail showing compliance with this requirement.
42. Provide roofing specifications (ESR Report or other approved listing), including roof assembly fire classification, on the plans. Show roof pitch.
43. Provide Class B fire classification for new and reconstructed structures. NBMC 15.05.210
44. Class A fire classification for the roof covering is required in High Fire Hazard Severity Zones (HFHSZ) and when a reroof within a HFHSZ exceeds 50% of the roof area in any one-year period. CBC 1505.1.1
45. Provide 2% slope at flat roofs and decks and show drainage methodology. Where drains and overflow are required, provide detail showing overflow piped separately and 2" higher than roof drain. R903.4.1.
46. The following construction components/materials are not included in the California Building Code. Specify the listing/labeling agency and listing number for: ____. Listing agency to be ANSI accredited for type of listing.

GARAGE AND CARPORT

47. 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" Type X gypsum board applied to the underside of floor framing. Provide minimum ½" gypsum board on the garage side elsewhere. Table R302.6
    b. Doors shall be 1-3/8" solid core or minimum 20-minute fire-rated door (for non-sprinklered dwellings) and self-closing and self-latching in sprinklered and non-sprinklered dwellings. R302.5.1
    c. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. R302.5.1

VENEER / FIREPLACE

48. Specify and detail the veneer material, listing, thickness, backing, anchorage, footings, and support over openings. R703.8

49. Exterior stone in Seismic Design Category D (D_2) shall not exceed the limits of Table R703.8.(2) and shall not exceed 4" thick.

50. Masonry veneer up to 5" thick installed over backing of wood or cold-formed steel according to Table R703.3(1) and Figure R703.8 shall be limited to first story above grade (R703.8).

51. Fireplace chimney shall extend at least 2 ft. higher than any portion of the building within 10 ft., but shall not be less than 3 ft. above the highest point where the chimney passes through the roof. R1003.9

MECHANICAL, PLUMBING & ELECTRICAL

52. Provide heating facilities per CRC R303.10 and show location on the floor plan.

53. Show location of electrical panel on plans. Electrical panels are not permitted in closets, bathrooms, and pantries. Keep electrical panel 3 ft. clear from face of electrical panel to any wall surface or obstructions.

54. Duplex shall be serviced by separate utilities (water, electrical, and gas).

ENERGY EFFICIENCY

55. Specify method of compliance and provide energy calculations. Provide Certificate of Compliance (CF-1R) forms on plans. CF-1R form is to be signed by designer or owner, and documentation author.

56. For Performance approach, use one of the following certified programs:
    a. Energy Pro Version 8.0
    b. CBECC-Res 2019.1.2
    c. Right-Energy Title 24 2019.1.1

    Visit the following link for the latest CEC approved software: *https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency-2*

57. Proposed scope of work requires HERS verification. All energy documentation forms must be registered with one of the following HERS provider:
    a. California Energy Registry (formerly CHEERS): *https://www.calenergy.org*
    b. California Certified Energy Rating & Testing Services (CalCERTS): *http://www.calcerts.com*

58. Provide an itemized list of all fenestrations in energy documentation. Identify exterior doors and windows with method similar to window schedules.

59. Specify U-factors and Solar Heat Gain Coefficient (SHGC) values for all fenestrations on window and door schedules. Add note to schedules: "Fenestrations must have temporary and permanent labels."

60. Hot water heater type does not match with energy documentations. Revise plans accordingly.

61. Architectural and structural construction specified conflicts with envelope construction requirements. Structural drawings show ____rafter depth and energy analysis requires ____ rafter depth. Revise by coordinating, sections, details and/or specifications on plans.

62. Installation of a Solar PV system is required for compliance with California Energy Standards per the included CF-1R form. Add this to Defer Submittal on the cover sheet. Provide a note of the drawings indicating that Solar PV with minimum ### kW DC must be obtained under separate review and permit.

63. For new construction and additions greater than 1000 sf., provide a whole-building mechanical ventilation system in accordance with the Fan Ventilation Rate or Total Ventilation Rate Method. Include ventilation system sizing calculations on the plans.
    a. Fan Ventilation Rate Method (ASHRAE Section 4.1.1):
        i. Minimum required fan flow rate, Qfan, (cfm) = 1 cfm per 100 sf of floor area + 7.5 cfm per occupant
        ii. Number of occupants = number of bedrooms + 1
    b. Total Ventilation Rate Method (ASHRAE Section 4.1.2):
        i. Minimum required Mechanical Ventilation Rate, Qfan (cfm) = Qtot - Qinf

ii. Total required ventilation rate, Qtot (cfm) = 3 cfm per 100 sf of floor area + 7.5 cfm per occupant.
iii. Number of occupants = number of bedrooms + 1
iv. Effective Annual Average Infiltration Rate, Qinf (cfm), determined in accordance with ASHRAE Std 62.2 equation 4.6a.

Whole-building ventilation shall be provided by exhaust air, supply air, or combined exhaust and supply air system. Natural ventilation through doors/windows or continuous operation of central forced air system air handlers used in central fan integrated ventilation systems are not a permissible method of providing whole-building ventilation. BEES 150(o), Exc. 5 to 150.2(a) & ASHRAE Std. 62.2

64. In kitchen specify the local exhaust system vented to outdoors shall have a minimum exhaust rate of 100 cfm. BEES 150(o), Exc. 5 to 150.2(a), & ASHRAE Std. 62.2.

SOUND TRANSMISSION CONTROL

65. Add the following sound insulation notes on the drawings:
    a. Approved acoustical sealant shall be provided along the joint between the floor and the separation wall.
    b. All penetrations into sound-rated partitions of floor-ceiling assemblies shall be sealed with an approved permanent resilient sealant.
    c. All rigid conduit, ducts, plumbing pipes, and appliance vents located in sound assemblies shall be isolated from the building construction by means of resilient sleeves, mounts, or minimum ¼" thick approved resilient material.
    Exception: Gas piping need not be isolated.
    d. Metal ventilating and conditioned air ducts located in sound assemblies shall be lined.
    e. Mineral fiber insulation shall be installed in joist spaces to a point 12" beyond the pipe or duct, whenever a plumbing pipe or duct penetrates a floor-ceiling assembly or where such unit passes through the plane of the floor-ceiling assembly within a wall.
66. Identify all sound rated partitions, floors and decks on the floor plans.
67. Wall-mounted lavatories and toilets are not permitted on sound-rated partitions.
68. A Sound Transmission Class (STC) rating of not less than 50 based on laboratory testing (45 if field tested) is required. Provide construction details of the sound rated partition between dwelling units. (NBMC **15.05.230,** CBC 1206.2)
69. A Sound Transmission Class (STC) rating and Impact Insulation Class (IIC) rating of not less than 50 based on laboratory testing (45 if field tested) is required. Provide construction details of the floor-ceiling assembly over XXX. (NBMC **15.05.230,** CBC 1206.2, 1206.3)
70. Submit sound attenuation design for HVAC equipment per ARI Std. 275. Sound level not to exceed 50 dba (55 dba with timer; 65 dba with timer and neighbor's consent) per Section 10.26.045 of the NBMC. Location of measurement to be at adjacent property patio or opening. Locate equipment in equipment well on roof if necessary. If unit not yet chosen, list under 'Deferred Submittals' on cover sheet.

FIRE HAZARD SEVERITY ZONE

71. The project site is located in a designated Very High Fire Hazard Severity Zone (VHFHSZ), include the "Very High Fire Hazard Severity Zone Minimum Construction Requirements" on a sheet of the plans. Located at the following link: *https://www.newportbeachca.gov/home/showdocument?id=14401*
72. All new construction and existing structures that are increased in size by 2,000 square feet or more and exceed 50% of the area of the existing structure located on parcels of land within the City of Newport Beach Hazard Reduction Zone and Local Agency Very High Fire Hazard Severity Zones (Special Fire Protection Area) shall comply with regulations found in Chapter 7A. (NBMC 9.04.380)
73. Accessory and miscellaneous structures other than buildings shall be constructed to conform to the VHFHSZ ignition resistance requirements. (NBMC **15.05.220,** CBC 704A)
74. Attached or detached trellises, arbors, patio covers, carports, gazebos and similar unenclosed covered structures shall comply with the VHFHSZ requirements. (NBMC **15.05.220,** CBC 710A.2 & CBC 710A.3.2)
75. Approved VHFHSZ exterior materials include the following: (NBMC **15.05.220,** CBC 707A)

a. Noncombustible material. CBC 202
b. Ignition-resistant material. CBC 702A & 704A.2
c. Exterior-rated Fire-retardant-treated wood. CBC 703A5.2 & 2303.2
d. Heavy timber (minimum 4-inch nominal). CBC 707.A.3, item 1
e. One layer of 5/8" Type X gypsum sheathing applied immediately behind the exterior covering or cladding.
f. The exterior portion of a 1-hour fire-resistive exterior wall assembly listed in the Gypsum Association Fire Resistance Design Manual (GA-600, current edition).

76. Paints, coatings, stains, or other surface treatments are ***not*** approved FHSZ fire-retardant treatment methods. (NBMC **15.05.220,** CBC 703A.5.3)
77. All exterior on or above grade surfaces within 10 ft. of the main building (including but not limited to balconies, decks, patios, porches, or stairs) shall be of an approved FHSZ exterior material. (NBMC **15.05.220,** CBC 709A.2 & CBC 709A.3)
78. All new or altered exterior walls, window, door trim, handrails, guardrails, and architectural elements shall be of an approved VHFHSZ exterior material regardless of separation distance from a property line. (NBMC **15.05.220)**
79. All exterior overhangs, soffits, porch ceilings, deck, floor projections, or similar elements shall be an approved FHSZ exterior material regardless of the separation distance from a property line. (NBMC **15.05.220,** CBC 707A.4)
80. Vents shall not be installed on the underside of eaves and cornices. (NBMC **15.05.220,** CBC 706A.3)
81. Project is located in a "Hazard Reduction Zone". Submit a fuel modification plan for review by Life Safety Services. See Hazard Reduction to Fuel Modification Guideline G.04. See link: *http://newportbeachca.gov/home/showdocument?id=41892*

ADDITIONAL REGULATIONS

82. Sprinklers:
    a New construction or addition/reconstruction which exceeds 2,000 sf. and 50% of the area of the existing structure will require installation of a fire sprinkler system throughout the structure. NBMC 15.04.120
    b Where the valuation of the permit for the remodel or renovation is equal to or exceeds 50% of the market value of such building the entire building shall comply with the code provisions for new construction.
    Exception: Permits having a valuation less than $220,700.00. NBMC 15.02.060
    c Sprinkler drawings and hydraulic calculations to be submitted to plan check and approved prior to issuing a building permit, or, list under 'Deferred Submittals" on cover sheet. Provide a note on the drawing stating: "Obtain fire sprinkler permit prior to calling for roof sheathing inspection."
    d Revise building data on cover sheet to identify that building is equipped with a fire sprinkler system in accordance with NFPA 13D.
    e Duplex shall have independent fire risers from each separate water meter.
83. List all deferred submittals on cover sheet and write note: "Deferred submittals to be reviewed by project architect or engineer of record and certified prior to submittal for plan check or approval by the City."
84. On flat and sloped sites, the top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of an approved drainage device not less than twelve (12) inches plus two (2) percent except for garage and carport space. Alternate elevations are permitted subject to the approval of the Building Official, provided that it can be demonstrated that, required drainage to the point of discharged and away from the structures is provided at all locations on the site. (NMBC 15.10.060 (9))
85. Wood framed structures with basements or more than 2 stories in height shall be prepared by a licensed architect or engineer. Per Section 15.05.080 Newport Beach Municipal Code as amended to Section R301.1.3.2 CRC.

FLOOD HAZARD ZONE

86. Building site is located in a special flood hazard area (SFHA) AE8, established in FIRM dated March 21, 2019. Top of slab to be set at one foot above the Base Flood Elevation (BFE) of 8.0 feet NAVD88,.

In no case shall the slab elevation be below 9.0 feet NAVD88, or, as required by Planning Department using North American Vertical Datum 1988 (NAVD88). NBMC 15.50.200(c).

87. Building site is located in a special flood hazard area (SFHA) AO1, established in FIRM dated March 21, 2019. Base Flood Elevation (BFE) shall be one foot above the highest adjacent grade within the SFHA. Top of slab to be set at one foot above the BFE. In no case shall the slab elevation be below 9.0 feet NAVD88, or, as required by Planning Department using North American Vertical Datum 1988 (NAVD88). NBMC 15.50.200(c).

88. Building site is located in a special flood hazard area (SFHA) AO2, established in FIRM dated March 21, 2019. Base Flood Elevation (BFE) shall be two feet above the highest adjacent grade within the SFHA. Top of slab to be set at one foot above the BFE. In no case shall the slab elevation be below 9.0 feet NAVD88, or, as required by Planning Department using North American Vertical Datum 1988 (NAVD88). NBMC 15.50.200(c).

89. Building site is located in a special flood hazard area (SFHA) VE__, established in FIRM dated March 21, 2019. Base Flood Elevation (BFE) is ___ feet NAVD88. Bottom of the lowest horizontal member to be clear one foot above the BFE, using North American Vertical Datum 1988 (NAVD88).

90. Buildings and structures in SFHA AE8, AO1, & AO2 shall have the lowest floor elevated above the BFE plus 1 foot for a design flood elevation (DFE). (R301.2.4 and R301.2.4.1 as amended NBMC 15.05.100. See tables 2-1 & 4.1 ASCE24)

91. Structures constructed in whole, or in part, in flood hazard areas (including A or V Zones) as established in FIRM dated March 21, 2019 shall conform to the requirements of NBMC 15.50 and in accordance with ASCE 24 subject to limitation of this code Section 15.05.100.

92. Existing structure: Substantial improvement projects must illustrate how the entire structure complies with flood mitigation requirements. Substantial improvement is when the cost of improvements meets or exceed 50% of the depreciated market value of the existing structure. The entire structure (existing and new) must be elevated to a the top of slab at one foot above the Base Flood Elevation. ASCE 24 and Building Code Policy NBMC 15.50.

93. SFHA AE, AO1 & AO2. Garage and carport finished slab may be located below the BFE, provided the slab elevation is above adjacent grade. Show a minimum of two flood vent openings at opposite sides of the garage on the foundation plan, exterior elevations, and floor plan.

    a. The bottom of flood vent openings must be within 1 ft. of the adjacent exterior grade.
    b. The top of flood vent openings must be below the BFE.
    c. Provide one square inch of opening per each square foot of garage area. Indicate the location with dimensions and areas of the openings on the exterior elevations, foundation plan and architectural floor plan. The required square inches must be within requirements of items a & b above and the minimum dimension in any direction shall not be less than 3 inches. NBMC 15.50.200 C.1.d. and ASCE24 section 2.7.2.1. Or provide engineered openings per ASCE24 section 2.7.2.2.

94. SFHA AE, AO1 & AO2. When top of garage floor slab is lower than the base flood elevation (BFE), garage walls must be supported over concrete curbs with top of curb one foot above the BFE (NAVD88). See "Lowest floor" regarding restriction on garage slab not allowed below grade. NBMC 15.50.050 Definitions

95. SFHA AE, AO1 & AO2. Exterior wood stairs shall be supported over concrete curbs with top of curb one foot above the BFE (NAVD88). All other stairs below BFE (NAVD88) must be concrete except in a VE zone.

96. Provide a completed “AO Zone Design Certificate” on the title page of the plan. Form is available at City Hall or https://www.newportbeachca.gov/home/showpublisheddocument/69494/637491777366600000

97. Provide a completed “VE Zone Design Certificate” on the title page of the plan. Form is available at City Hall or https://www.newportbeachca.gov/home/showpublisheddocument/69496/637491780108370000

98. Provide the following notes on title page of plans:

a. A licensed surveyor shall complete a FEMA Elevation Certificate (EC) and submit the EC for review and approval from the City's Community Rating System (CRS) Coordinator prior to requesting final inspection.
b. An approved EC must be submitted to the Building Department Inspector during final inspection.
c. All mechanical, gas, and electrical equipment servicing the building (including ducts) must be at least one foot above the BFE (NAVD88).

99. Provide an Alternate Method of Construction (MOD) application and details with specifications for ducts below the base flood elevation. This type of MOD is not allowed within a VE site. Incorporate the approved MOD document for this specific site within the approved plans. The Elevation Certificate must include a copy of the approved MOD document. Provide the following notes on title page of plans:
    a. An approved Alternate Method of Construction (MOD) form must accompany the EC submittal for review by the CRS Coordinator for a mechanical duct system.
    b. The EC must have the duct's lowest elevation indicated in Section C2.e) with notes in Comments Section D regarding the approved MOD.
    c. Comments Section D notes must include the next lowest elevation of machinery or equipment servicing the building with its measured elevation in feet (NAVD88).

STRUCTURAL

100. Provide engineered design in accordance with 2019 CBC, R301.2.1, R301.2.2, and ASCE 7-16.
101. Provide material specifications for _____ on the plans.
102. Submit structural design/analysis calculations for: _____
103. Provide design criteria on the plans to specify the risk category, the wind load based on 96 mph, all seismic force resisting systems and associated R and Ω values, and identify the Seismic Design Category. ASCE 7, Table 1.5-1 and Table 12.2-1.
104. Specify on the plan the design live loads used for roof and floor loads. Table R301.5.
105. Provide on construction drawings, the design dead load of solar photovoltaic panels including rack system in areas of framing designed for installation or future installations of solar panels.
106. Provide geotechnical report pursuant to City Policy, CBC 1803.5, for all new construction, additions, structures with special conditions, pools, shoring, retaining walls or structures on or near a slope. See link: *http://www.newportbeachca.gov/home/showdocument?id=18172*
107. Provide on title sheet soils engineer's name, address, telephone number, reference of report number, date and any supplemental reports, etc. List soils allowable design values on foundation plan. NBMC 15.05.170, R401.1
108. Soils engineer to review and approve final foundation plan, foundation details, shoring plan, pool plan, precise grading and drainage plan and erosion plan. This correction will remain until the permit is issued.
109. Provide a written statement of required special inspections per Section 1704.3. List on the plan the materials, systems, components and work required to have special inspections or tests, and their extent and frequency (i.e. periodic, continuous) per Section 1705.
110. Provide a written statement of required structural observation identifying frequency and extent in accordance with department policy CBC 1704.5. Please include the city form on the Structural plans and specify elements requiring structural observations. See following link: *http://www.newportbeachca.gov/home/showdocument?id=11354*

FRAMING

111. Verify gravity framing meets the maximum deflection criteria per Table R301.7.
112. Elevated garage floors that support vehicular loading shall be designed to resist 50 psf and min 2000 lb. concentrated force acting on 20 square inches area, Table R301.5.

113. Exterior balconies and decks shall be designed to support a minimum uniformly distributed live load of 60 psf. Cantilevered balconies must be checked for live load only at the cantilever portion in accordance with ASCE 7, Section 4.3.3.

114. Attached canopies on buildings shall be designed to resist the wind pressure forces per ASCE 7, Section 30.11.

115. Provide framing support under point load or bearing wall supporting roof framing at _____, and show location of supported post above on floor framing.

116. Studs supporting two floors, ceiling, and roof must be 3 x 4 or 2 x 6 at 16 inches on center. CRC Table R602.3.(5)

117. Provide truss design drawings or list with required deferred submittals. Identify on the construction drawings the design dead load at all manufactured roof trusses. Construction drawings must identify the required drag trusses and design capacity of the drag element.

LATERAL

118. Wind design velocity pressure calculation must consider topographic effects on escarpments, ridges, and hills that meet all of the conditions of ASCE 7, Section 26.8.1.

119. Wind loads for components and cladding shall be per ASCE 7, Chapter 30.

120. Submit mapped accelerations parameters Ss and S1 and other seismic design parameters using a website interface tool that queries the U.S. Geological Survey (USGS) Seismic Design Web Services and retrieves the seismic design variables in a report format (i.e. ATC Hazards by Location, OSHPD Seismic Design Maps, ASCE 7 Hazard Tool, etc.).

121. Where Site Class D is assumed as the default site class per ASCE 7, Section 11.4.3, the value of Fa shall not be less than 1.2 (ASCE 7, 11.4.4).

122. Wood structural panel shear walls shall comply with CBC Table 2306.3(1) or SDPWS Table 4.3A. Provide shear wall schedule with following specifications:

    a. Minimum 3x nominal framing at panel edges and staggered edge nailing where nails are spaced 2 inches on center or closer (footnote d or g.), or when shear design value exceeds 350 plf (footnote i).
    b. Where panels are applied on both sides of wall and nail spacing is less than 6 inches on center, panel joints shall be offset to fall on different framing members, or framing shall be minimum 3x nominal at adjoining panel edges and edge nailing on each side shall be staggered (footnote h).
    c. Load path to the foundations shall be provided for uplift, shear and compression forces. Elements resisting shear wall forces contributed by multiple stories shall be designed for the sum forces contributed by each story (SDPWS 4.3.6.4.4)
    d. Anchor bolts shall include steel plate washers, a minimum of 0.229" x 3" x 3" in size, between sill plate and nut R602.11.1 (Acceptable alternate SDPWS 4.3.6.4.3)
    e. Fasteners and connectors to be galvanized for preservative treated wood. CBC 2304.10.5.1

123. Include the vertical seismic load effects Ev = 0.2 Sds x DL (ASCE 7, Eqn 12.4-4a) as required by ASCE 7, Sections 2.3.6 (strength level) and 2.4.5 (allowable stress level).

124. Wood structural panels designed to resist wind and seismic forces shall not exceed height to width ratios per AWC SDPWS, Table 4.3.4. Blocked Wood structural panels shall have a max h/ bs ratio of 3.5:1. Shear walls not meeting the aspect ratio of 2:1 shall have the unit shear capacity reduced *by 1.25-0.125 h / bs per* Section 4.3.4.1.

125. For shear walls with openings, provide design and detailing in accordance with R602.10.8. Where required per R301.1.3, provide engineered design to meet the requirements of Force-transfer Shear Walls per AWC SDPWS, Section 4.3.5.2 or as Perforated Shear Walls per AWC SDPWS, Section 4.3.5.3.

126. Provide details for transfer of shear wall holdown forces to foundation for shear walls above first floor.

127. Holdowns are required for all shear walls with net uplift forces. Use applicable ASCE 7-10 SECTION 12.4.2.1- FACTORS FOR DL for earthquake and 0.9DL (strength level) 0.6 DL (ASD LEVEL) for wind for calculation of forces resisting shear wall overturning.

128. Design structural elements for support of discontinuous lateral force resisting elements using overstrength Ω_o factor in accordance with ASCE 7, Section 12.3.3.3. Reactions at ends of structural elements are required to be transferred to foundation, or until there are no net reactions. Provide details of all connections.

    a. When designing beams, posts and other discontinuous elements for overstrength factor, include vertical seismic load in $E_m = E_{mh} \pm E_v$. Item 1 and 2 in Section 12.4.3.

129. Provide design/analysis of horizontal diaphragms, chords and chord splices:

    a. Provide design of drag/struts and drag/strut connections. Include calculations for required diaphragm nailing at drag/struts (2 rows diaphragm BN will be required if diaphragms on each side of drag/strut are loaded to capacity).
    b. Identify drag/struts on plans and specify drag/strut nailing.

130. Provide grade beam design for continuous footings supporting lateral force resisting elements.

FOUNDATION

131. New construction or when the valuation of the permit for the remodel or renovation of an existing building is equal to or exceeds 50% and $220,700 of the market value of such building and the building is located within an area prone to liquefaction, shall mitigate liquefaction by using one of the following options:

    a. Minimum Construction requirement option 1:
        v. Tie all pad footings with grade beams in 2 orthogonal directions.
        vi. Bottom of all footings to be 24-inch below grade.
        vii. Continuous footings to have a minimum of two #5 steel bars at top and bottom.
        viii. Floor slab on grade to be 5-inch thick (minimum) reinforced with #4 bars at 12 inch on center each way located at the center of the slab.
        ix. Dowel footing to slab with #4 bars at 24-inch on center.
    b. Minimum Construction requirement option 2:
        i. Mix the top five feet of sand with cement at the ratio of two sacks of cement per cubic yard and re-compact in place.
        ii. Tie all pad footings with grade beams.
    c. Provide design for a Mat slab of min 12 inches in thickness
    d. Provide design for a Post-tension slab and foundation.
    e. Caissons or pile foundation. Driven piles are not permitted due to vibrations from pile driving that will likely result in damaging adjacent structures.
    f. Replace soils to a depth of five feet with imported soils approved by a soils engineer.
    g. Foundation design per soils engineer recommendation, which is equal to or exceeds mitigation methods listed above.

132. New slab on grade shall install a Capillary Break in compliance with one of the following (CG 4.505.2.1):

    a. A 2-inch thick layer of sand over a vapor barrier meeting ASTM 1745 (15MIL) over 2 inches of sand, over a 4-inch thick base of ½ inch or larger clean aggregate.
    b. A concrete mix design, which will address bleeding, shrinkage, and curling will be required where the vapor barrier is applied directly over 4-inch of ½ inch or larger aggregate. (For additional information, see American Concrete Institute, ACI 302.2R-06)

133. Foundations and floor slabs for buildings located in expansive soils shall be designed in accordance with CBC Section 1808.6

134. Provide minimum of 1-#4 reinforcing bar at top and bottom of continuous footings. R403.1.3

135. Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative-treated wood. R317.1(2)

136. Call out foundation bolt size and spacing on foundation plan. The foundation bolts shall be ½ inch diameter for SDC D and 5/8-inch diameter for SDC E or F with 0.229-inch x 3-inch x 3-inch plate washers, embedded at least 7 inches into the concrete or masonry foundation, spaced not more than 6 ft. apart. R602.11.1 and max 4 ft. for buildings over two stories in height. All cripple walls shall be braced.

137. Show minimum 18 inch under floor clearance from grade to bottom of floor joists and minimum 12-inch clearance to bottom of girders. R317.1

ADDITIONAL CORRECTIONS

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