



September 3, 2020

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County of Sonoma (RPC) – **FIRST REVIEW**  
County Permit No: BLD20-3145&5557

**Re: Plan Review: SFD with Att Garage & ADU with Att Garage**  
**Address: 5800 Wikiup Bridge Way**

4 LEAF Inc, has completed the first review of the following documents for the project referenced above on behalf of the Sonoma County:

1. Intake Document: Electronic copy dated 08.26.2020
2. Architectural Plans: Electronic copy dated 06.16.2020 by Camargo & Associates Architects Inc
3. Structural Plans: Electronic copy dated 05.22.2020 by Wright Engineers
4. Structural Calculations: Electronic copy dated 05.31.2020 by Wright Engineers
5. Energy Calculations: Electronic copy dated 05.22.2020 by Cheers
6. Geotechnical Report: Electronic copy dated 11.30.2018 by RGH Consultants
7. Geotechnical Review Letter: Electronic copy dated 04.02.2020 by RGH Consultants
8. Special Inspection Form: Electronic copy 06.22.2020 by Maurice Camargo A.I.A
9. CalGreen Checklist: Electronic copy dated 06.22.2020 by Sondra Edwards
10. Grading Questionnaire: Electronic copy dated 06.16.2020 by Maurice Camargo A.I.A
11. Truss Calculations: Deferred Submittal
12. Fire Sprinklers: Deferred Submittal

The 2019 California Building, Residential, Mechanical, Plumbing, Fire, and Electrical Codes (i.e., 2018 IBC, IRC, UMC, UPC, IFC and 2017 NEC, as amended by the State of California and the County of Sonoma), 2019 California Green Building Standards Code, 2019 California Energy Code, Sonoma County Municipal Code, Sonoma County Well & Septic Standards, Sonoma County Fire Safety Standards as applicable, were used as the basis of our review.

**Plan review comments follow on the attached list.**

**Please submit an itemized response letter and two (2) sets of complete and revised documents with all revisions clouded directly to the County of Sonoma Resiliency Permit Center at 448 Fiscal Drive Santa Rosa Ca, 95403. Electronic submittals please upload a complete set with all revision clouded to electronic plans portal. <https://prmd.sonomacounty.ca.gov/citizenaccess/>**

Sincerely,

**4 LEAF Inc,**

Review by:

Sivaji Muggari  
ICC Plans Examiner

## **Plan Review Comments**

### **OCCUPANCY & BUILDING SUMMARY:**

Occupancy Groups: R3/U  
Type of Construction: V-B  
Sprinklers: Yes  
Stories: 1 (House), 1 (ADU)  
Area of Work (sq. ft.): 2880 sf. (House) 528 sf. (Garage) & 928 sf (Porch/Patio)  
1015 sf (ADU), 340 sf. (Garage) & 354 sf. (Porch/Patio)

### **GENERAL INFORMATION:**

- A. The following comments are referred to the 2019 California Building, Mechanical, Plumbing, Electrical Codes, California Green Building Standards Code, and Energy Code (i.e., 2018 IBC, UMC, UPC, and 2017 NEC, as amended by the State of California).
- B. Respond in writing to each comment by marking the attached comment list or creating a response letter. Indicate which details, specification, or calculation shows the required information. Your complete and clear responses will expedite the re-check and hopefully, approval of this project.
- C. Please be sure to include the architect and engineer's stamp and signature on all sheets of the drawings and on the coversheets of specifications and calculations per CBPC 5536.1 and CBPC 6735. This item will be verified prior to plan approval.

### **PLANNING COMMENTS:**

PLD1. Provide a complete plot plan showing the following information for review:

- A. Public street.
- B. Lot dimensions with bearings and distances.
- C. Easements.
- D. Front, rear, and side yard setbacks.
- E. Building footprint with dimensions to property lines.
- F. Distances between buildings.
- G. Locations and sizes of utilities:
  - 1) Electric meters/service.
  - 2) Gas meter(s).
  - 3) Solar panels.

PLD2. Please provide the following notes on the plans:

- a. Building Materials and Exterior Colors
  - i. Building colors used for roofing, siding, and glazing shall be local earth tones blending with the natural environment of the site. Darker, flat tones, with low reflectivity such as

beige, browns, and greens shall be used. Exceptions for lighter colors may be made for historic character, passive solar or green building designs.

- ii. Building materials and colors shall not have a Light Reflective Value (LRV) greater than 30%.
- iii. All new windows facing the public street shall have low reflectivity or anti-glare coatings designed to minimize reflectivity.

**b. Lighting, Exterior**

- i. Exterior lighting shall be downward facing, fully shielded, Dark Sky Compliant, and located at the lowest possible point to the ground to prevent glare, light pollution, and unnecessary glow in the rural night sky. Fully shielded lights have shades or covers that screen the bulb from view while casting light to the ground or building surface.
- ii. Light fixtures shall not be located at the periphery of the property, shall not wash out structures or any portions of the project site, and shall not spill over onto adjacent properties or into the night sky.
- iii. Exterior luminaires shall have a maximum output of 1000 lumens per fixture.
- iv. Total illuminance beyond the property line created by simultaneous operation of all exterior lighting shall not exceed 1.0 lux.
- v. All roadway, parking, and driveway lights shall be low profile utilizing full cut-off fixtures.
- vi. Flood lights are prohibited, if security lighting is necessary, it shall be motion-sensor activated only.

**FIRE COMMENTS:**

No comments.

**WELL & SEPTIC COMMENTS:**

WS1. Documents indicate that this property relies on provided water instead of a well. Please provide a “Will Serve” letter from the water purveyor.

**ARCHITECTURAL COMMENTS:**

- A1. Sheet A1.1 & A6.2: Please note not less than ½" gypsum board or equivalent applied to the garage side (where separating the garage from the residence or attics). [Table R302.6]
- A2. Sheet A5.0 & A10.0: Acknowledged Smoke Detector and Carbon Monoxide alarm legend under electrical legend. However, Electrical plans missing SD and CM alarms. Please provide smoke alarms per R314.3 and Carbon Monoxide Alarms per R315.3
- A3. Please provide a note Tub and shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 6 feet above the floor. [R307.2] Also specify materials used as backers for wall tile in tub and shower areas and wall panels in shower areas shall be glass mat gypsum panel, fiber-reinforced gypsum panels, non-asbestos fiber-cement backer board, or non-asbestos

fiber-cement reinforced cementitious backer units installed in accordance with manufacturers' recommendations. [R702.4.2]

- A4. Sheet A1.1 (House) & A6.2 (ADU): Amend plans to show the area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway [R309.1]
- A5. Please note flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. A flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical sidewall. [R903.2.1]
- A6. Sheet A1.1 (House) & A6.2 (ADU): Please extend door schedule to specify Glazing in all fixed and operable panels of swinging, sliding and bifold doors shall be considered a hazardous location and shall be tempered. [R308.4.1]
- A7. Sheet A1.1 (House) & A6.2 (ADU): Update window schedule to show Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bath tubs, showers and indoor or outdoor swimming pools, glazing within 60 inches of the water's edge, and less than 60 inches above the floor must be protected with safety glass. [R308.4.5]
- A8. ADU Energy calculations show 1.79 kWdc PV System. Please submit a full solar design, including access pathways, structural supports, rails, and panel cut sheets, and electrical calculations with the next submittal. Also note Solar photovoltaic power systems shall be installed in accordance with Sections **R324.3.1** through **R324.7.1** and the California Electrical Code. [R324.3] Or provide a note PV shall be separate permit on cover sheet.
- A9. Sheet GN: Codes under General notes referencing 2016 codes. Please update to latest 2019 codes.

#### **MECHANICAL COMMENTS:**

- M1. Please extend kitchen notes to include the kitchen range hood must be HVI rated, limited to 3 sone, and with a minimum airflow as specified in ASHRAE 62.2. Per **RCM 4.6.4.7**, vented range hoods including appliance-range hoods must be 100 cfm, while all other hood types including downdraft must be 300 cfm. [CEnC 150.0(o)2B]

#### **ELECTRICAL COMMENTS:**

- E1. Please provide the following notes on the plan regarding garage door openers:
  - (a) On or after July 1, 2019, no person, corporation, or entity shall manufacture for sale in this state, sell, offer for sale at retail or wholesale, or install in this state a residential automatic garage door opener that does not have a battery backup function that is designed to operate when activated because of an electrical outage. The battery backup function shall operate in a manner so that the automatic garage door opener is operational without interruption during an electrical outage.
  - (b) This section applies to all automatic garage door openers manufactured and sold for use in any residence and other residential applications of automatic garage door openers manufactured for commercial purposes.
  - (c) On or after July 1, 2019, no replacement residential garage door shall be installed in a manner that connects the replacement door to an existing residential automatic garage door opener that does not meet the requirements set forth in subdivision (a), regardless of the date of manufacture of the residential automatic garage door opener.
- E2. Please note automatic garage door openers, if provided, shall be listed, and labeled in accordance with UL 325. [R309.4]

- E3. Please specify that the lights over tubs and showers are marked for damp locations or wet locations where subject to shower spray. [CEC 410.10(D)]
- E4. Please specify that the lights over tubs and showers are marked for damp locations or wet locations where subject to shower spray. [CEC 410.10(D)]
- E5. Sheet A5.0 & A10.0: Please update all laundry room receptacles. Including the washing machine (but not the dryer) to AFCI; laundry areas are now included in AFCI required locations. [CEC 210.12(A)]
- E6. Provide a listed raceway and a reserved space on the service panel for a dedicated minimum 40A branch circuit and overcurrent protection for future EV charging. Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall originate at the main service or subpanel and shall terminate in a listed cabinet, box, or other enclosure in close proximity to the proposed location of the EV charger. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device. [CALGreen 4.106.4.1]
- E7. Please note At least one receptacle shall be installed at each island (or peninsular) countertop space with a long dimension of 24-inches or greater. A peninsular countertop is measured from the connected perpendicular wall. [CEC 210.52(C)(2) & (3)]
- E8. Please note receptacle outlets shall be located on or above, but not more than 20-inches above the countertop. [CEC 210.52(C)(50)]

**PLUMBING COMMENTS:**

- P1. Fixtures shall be spaced in accordance with the California Plumbing Code. [R307.1]
- No water closet or bidet shall be set closer than 15 inches from its center to a side wall or obstruction nor closer than 30-inches center to center to a similar fixture. The clear space in front of a water closet or bidet shall be not less than 24 inches. [CPC 402.5]
  - Shower doors shall open so as to maintain not less than a 22-inch unobstructed opening for egress. [CPC 408.5]
  - Shower compartments, regardless of shape, shall have a minimum finished interior of 1024 square inches and shall also be capable of encompassing a 30-inch circle. The minimum required area and dimensions shall be measured at a height equal to the top of the threshold and at a point tangent to its centerline. The area and dimensions shall be maintained to a point of not less than 70-inches above the shower drain outlet. [CPC 408.6]
- P2. *Flow Rates:*
- The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. [CPC 411.2]
  - Showerheads shall have a maximum flow rate of 1.8 gallons per minute at 80psi. [CPC 408.2.1]
  - The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons (6.8/ L) per minute at 60 psi. [CPC 420.2.1]
  - The maximum flow rate of residential lavatory faucets not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi. [CPC 407.2.1.2]

**GREEN BUILDING COMMENTS:**

No comments.

**ENERGY COMPLIANCE COMMENTS:**

- En1. House Energy Calculations missing in plan set. Please be sure to provide in resubmittal.
- En2. Please coordinate with architectural to show and specify wall, ceiling, roof, and floor insulation. Detail the R-value, show baffles and air space at attics, etc. [**CEnC 150.0(a) to (d)**]
- En3. Please note the kitchen range hood must be HVI rated, limited to 3 sone, and with a minimum airflow as specified in ASHRAE 62.2. Per **RCM 4.6.4.7**, vented range hoods including appliance-range hoods must be 100 cfm, while all other hood types including downdraft must be 300 cfm. [**CEnC 150.0(o)2B**]
- En4. Sheet A2.1: Please show IAQ 45 cfm and 15 cfm fans specified on energy calculations pages on the plans. As an indoor air quality fan, it will operate continuously; a label near the switch should be provided to indicate that. Also, please provide a switch to control the IAQ fan. Near the switch a label is needed to inform the occupant that the fan should be operating whenever the home is occupied. [**Residential Compliance Manual**]

**STRUCTURAL COMMENTS:**

- S1: Structural calculations: Please note computer generated calculations few cycles out of date. Please verify adequacy of proposed design with latest codes.
- S2. (House) Calculation sheet G-8 specifies B3 as HSS8x4x1/4 along GL C. However, calc sheet G-10 shows HSS10x3x5/16. Please update/clarify.
- S3. (House) Calculation sheet G-8 specifies B1 as 5 1/8 x 12" GLB along GL F. However, calc sheet K-1 shows Different beam. Please update/clarify.
- S4. Amend structural plans to specify Flat ICF wall systems shall conform to ASTM E2634. [**R608.4**]

If you have any questions regarding the above comments, please contact (**Sivaji Muggari, smuggari@4leafinc.com**)) for plan review comments via email or telephone (925) 462-5959.

**[End]**