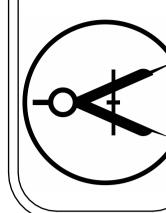


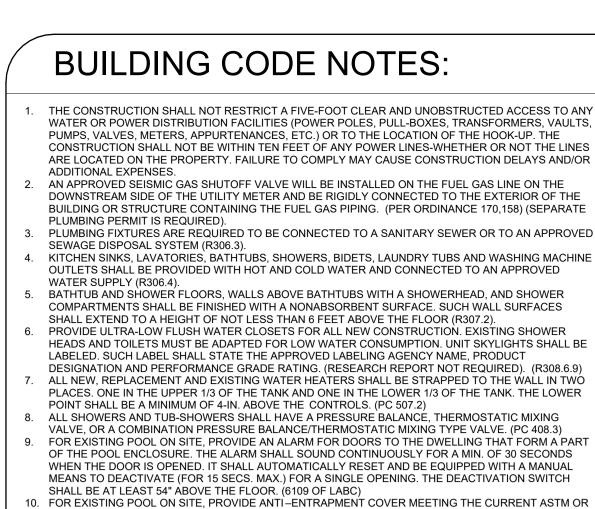


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OWNER'S NAME: OWNER'S ADRESS **NOTES:** SCALE: **DATE:** 08.19.2024



FAMILY DWELLINGS PER ASSEMBLY BILL (AB) NO. 2977. (3162B)

SITE PLAN NOTES:

SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

TO THE FIELD INSPECTOR FOR VERIFICATION. (4.504.2.4, 9.504.2.4)

CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM OR

SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD (4.504.3)

MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH'S SPECIFICATION

BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION (4.504.5.1, 9.504.5.1)

20. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. THE BUILDING

THE HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED AND DESIGNED USING ANSI/ACCA

PROVIDE MINIMUM 1" (INSIDE DIAMETER) LISTED RACEWAY INSTALLED FOR EACH UNIT TO

INSPECTOR SHALL NOT ENCLOSE WALL AND FLOOR FRAMING UNTIL IT IS INSPECTED AND FOUND TO BE

MANUAL J-2004, ANSI/ACCA 29-D-2009 OR ASHRAE HANDBOOKS AND HAVE THEIR EQUIPMENT SELECTED

ACCOMMODATE A DEDICATED 208 /240 VOLT BRUNCH CIRCUIT. THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR A SUBPANEL AND TERMINATE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE CHARGING SYSTEM INTO A LISTED CABINET, BOX OR ENCLOSURE. SUFFICIENT CONDUCTOR SIZING AND SERVICE CAPACITY TO INSTALL LEVEL 2 EVSE SHALL BE PROVIDED. A LABEL STATING 'EV CAPABLE' SHALL BE POSTED IN CONSPICUOUS PLACE AT THE SERVICE PANEL OR SUBPANEL AND NEXT TO THE

THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR INSTALLATION

OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE SOLAR ELECTRICAL INSTALLATION. THE RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION AND SHALL BE PERMANENTLY MARKED AS "FOR FUTURE SOLAR

24. BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACE IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR

PROTECTION OF WOOD AND WOOD BASED PRODUCTS FROM DECAY SHALL BE PROVIDED IN THE

THAT IS PRESERVATIVE-TREATED IN ACCORDANCE WITH AWPA U1 FOR THE SPECIES, PRODUCE,

PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWPA U1. 26. PROVIDE ANTI-GRAFFITI FINISH WITHIN THE FIRST 9 FEET, MEASURED FROM GRADE, AT EXTERIOR

27. APPLICATIONS FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF

APPLICATION SHALL AUTOMATICALLY EXPIRE. (R105.3.2 CRC)

LOCATIONS SPECIFIED PER SECTION R317.1 BY THE USE OF NATURALLY DURABLE WOOD OR WOOD

28. EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS WORK AUTHORIZED IS COMMENCED WITHIN 180 DAYS OR IF THE WORK AUTHORIZED IS SUSPENDED OR ABANDON FOR A PERIOD OF 180 DAYS. A

FÉE OF APPROXIMATELY 50% OF THE ORIGINAL PERMIT FEE AMOUNT WHEN THE PERMIT HAS BEEN

EXPIRED FOR UP TO SIX (6) MONTHS. WHEN A PERMIT HAS BEEN EXPIRED FOR A PERIOD IN EXCESS OF

ONE (1) YEAR, THE REACTIVATION FEE SHALL BE APPROXIMATELY 100% OF THE ORIGINAL PERMIT FEE.

29. ÈFFECTIVE JAN 1, 2014, SB 407 REQUIRES REPLACEMENT OF ALL NONCOMPLIANT PLUMBING FIXTURES

IN PROPERTIES BUILT ON OR BEFORE JAN 1, 1994 WITH WATER-CONSERVING PLUMBING FIXTURES.

THE PANEL 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

PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS EV CAPBLE. THE RACEWAY

32. EARTH IMPORT AND EXPORT ACTIVITIES MAY TAKE PLACE ONLY BETWEEN THE HOURS OF 9:00A.M. AND

DEDICATED 108/240 VOLT BRANCH CIRCUIT. THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR A SUBPANEL AND TERMINATE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE CHARGING

PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING AS EV CAPABLE. THE RACEWAY

THE SERVECE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT

33. MIN. 1" (INSIDE DIAMETER) LISTED RACEWAY IS INSTALLED FOR EACH UNIT TO ACCOMODATE A

THE PANEL OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MIN. DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF BRANCH CIRQUIT

THE SERVICE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT

FERMINATION LOCATION SHÀLĹ BE PERMANENT AND VISIBLY MARKED EV CAPABLE.

TERMINATION LOCATION SHALL BE PERMANENT AND VISIBLY MARKED BY CAPABLE

SUCCESSFUL INSPECTION MUST BE OBTAINED WITHIN 180 DAYS. A PERMIT MAY BE EXTENDED IF A WRITTEN REQUEST STATING JUSTIFICATION FOR EXTENSION AND AN EXTENSION FEE IS RECEIVED. PRIOR TO EXPIRATION OF THE PERMIT AND GRANTED BY THE BUILDING OFFICIAL. NO MORE THAN ONE (1) EXTENSION MAY BE GRANTED. PERMITS WHICH HAVE BECOME INVALID SHALL PAY A REACTIVATION

LIMITS LISTED IN TABLE 4.504.5/ TABLE 9.504.5, (4.504.5, 9.504.5)

IN ACCORDANCE WITH ANSI/ACCA 36-S MANUAL S-

RACE WAY TERMINATION POINT

ROAD FRONTING THE PROPERTY

OVERCURRENT PROTECTIVE DEVICE.

3:00 P.M., MONDAY THROUGH FRIDAY

OVERCURRENT PROTECTIVE DEVICE

SYSTEM INTO A LISTED CABINET. BOX OR ENCLOSURE.

WALLS AND DOORS.

4.504.2.1 AND COMPLY WITH THE VOC LIMITS IN TABLES 4.504.1

CONSTRUCTION WASTE SHALL BE REDUCED BY 50%.

FALL OF 6" WITHIN THE FIRST 10 FEET

AND 4.504.2 AS APPLICABLE. (4.504.2.1)

COMPLY WITH THE VOC LIMITS IN TABLE 4.504.3.

REQUIREMENTS OF ONE OF THE FOLLOWING:

EMISSIONS (SPECIFICATION 01350) OF

NSF/ANSI 140 AT THE GOLD LEVEL OR

VOC LIMIT OF 50 G/L (4 504 3 1 4 504 3 2)

PRODUCTS DATABASE OR

MORE OF THE FOLLOWING:

SATISFACTORY.

METHODS, (4,406.1)

SOURCES OF MOISTURE.

FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED ADHESIVES, SEALANTS AND CAULKS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 13. PAINTS AND COATINGS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 4.504.2.2 AND 14. AEROSOL PAINTS AND COATINGS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 15. ALL NEW CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDART METHOD OF THE TESTING OF VOC 16. ALL NEW CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE GREEN LABEL PROGRAM, CARPET ADHESIVES SHALL NOT EXSEED A 7. A MINIMUM OF 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR A. PRODUCTS CERTIFIED AS A LOW-EMITTING MATERIAL IN THE CHPS HIGH PERFORMANCE VOC EMISSION LIMITS DEFINED IN THE CHPS HIGH PERFORMANCE PRODUCTS DATABASE OR PRODUCTS COMPLIANT WITH THE CHPS CRITERIA CERTIFIED UNDER THE GREENGUARD CHILDREN CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM NEW HARDWOOD PLYWOOD, PARTICLE BOARD, AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED IN THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE FORMALDEHYDE THE FORMALDEHYDE EMISSIONS VERIFICATION CHECKLIST, FORM GRN 3, SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL. THE MANUFACTURER'S SPECIFICATIONS SHOWING FORMALDEHYDE CONTENT FOR ALL APPLICABLE WOOD PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND



2. An approved seismic Gas Shutoff Valve will be installed on the fuel gas line on the down stream side of the utility meter and be rigidly connected to the exterior of the building or structure containing the fuel gas piping . (Per ordinance 170,158). Separate plumbing permit is required.

Plumbing fixtures are required to be connected to a sanitary sewer or to an (approved sewage disposal system (R306.3). Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water and connected to an approved water supply (R306.4).

Bathtub and shower floors, walls above bathtubs with a showerhead, 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). Provide ultra-low flush water closets for all new construction. Existing shower heads and toilets must be adapted for low water consumption.

Provide 70" high non-absorbent wall adjacent to shower and approved shatter-resistant materials for shower enclosure.

Unit Skylights shall be labeled by LA City Approved Labeling Agency. Such label shall state the approved labeling agency name, product

designation and performance grade rating. (Research Report not required). (R308.6.9)

Water heater must be strapped to wall. 10. Heater shall be capable of maintaining a minimum room temperature of 68°F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms at the design temperature. (R303.10)

11. Smoke detectors shall be provided for all dwelling units intended for human occupancy, upon the owner's application for a permit for alterations, repairs, or additions, exceeding one thousand dollars (\$1,000). (R314.6.2) 12. Where a permit is required for alterations, repairs or additions exceeding one thousand dollars (\$1,000), existing dwellings or sleeping units that

have attached garages or fuel-burning appliances shall be provided with a carbon monoxide alarm in accordance with Section R315.2. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained. (R315.2.2)

13. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section R303.1 or shall be provided with artificial light that is adequate to provide an average illumination of 6 foot-candles over the area of the room at

a height of 30 inches above the floor level. (R303.1) 14. A copy of the evaluation report and/or conditions of listing shall be made available at the job site

15. Lots shall be graded to drain surface water away from foundation walls with a minimum fall of 6 inches within the first 10 feet (R401.3) 16. Ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage sheet steel or

other approved material and shall not have openings into L ' the garage (R302.5.2). 17. Other penetrations of garage/dwelling ceilings and walls shall be protected as required by Section R302.11, Item 4 (R302.5.3).

18. Through penetrations of fire-resistance-rated wall or floor assemblies shall comply with Section R302.4.1.1 or R302.4.1.2.

19. Membrane penetrations shall comply with Section R302.4.1 Where walls are required to have a fire-resistance rating, recessed fixtures shall be installed so that the required fire-resistance rating will not be reduced. 20. In combustible construction, fire blocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an

effective fire barrier between stories, and between a top story and the roof space. (R302.1 1) 21. In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1,000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. (R302.12)

22. The building shall be equipped with an automatic residential fire sprinkler system in accordance with section R313.3 or NFPA13D. (R313,

23. The Sprinkler System shall be approved by Plumbing Division prior to installation.

24. An approved smoke alarm shall be installed in each sleeping room & hallway or area giving access to a sleeping room, and on each story and basement for dwellings with more than one story. Smoke alarms shall be interconnected so that actuation of one alarm will activate all the alarms within the individual dwelling unit. In new construction smoke alarms shall receive their primary power source from the building wiring and shall be equipped with battery back-up and low battery signal (R314)

25. An approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages. Carbon monoxide alarm shall be provided outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s) and on every level of a dwelling unit including basements. (R315)

26. Heater shall be capable of maintaining a minimum room temperature of 68°F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms at the design temperature. (R303.9) 27. Buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible

and visible from the street or road fronting the property. (R319.1) 28. Protection of wood and wood based products from decay shall be provided in the locations specified per Section R317.1 by the use of naturally

durable wood or wood that is preservative-treated in accordance with AWPA Ui for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA Ui.

29. Provide anti-Graffiti finish within the first 9 feet, measured from grade, at exterior walls and doors. Exception: Maintenance of building affidavit is recorded by the owner to covenant and agree with the City of Los Angeles to remove any graffiti within 7-days of the graffiti being applied. (6306)

30. The flow rates for all new plumbing fixtures shall comply with the maximum flow rates specified in Section 4.303.1 31. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to only allow one showerhead to be in operation

32. For projects that include landscape work, the Landscape Certification, Form GRN 12, shall be completed prior to final inspection approval. 33. Materials delivered to the construction site shall be protected from rain or other sources of moisture.(4.407.4)

34. An Operation and Maintenance Manual including, at a minimum, the items listed in Section 4.410.1, shall be completed and placed in the building at the time of final inspection. "Form GRN 6 (4.410.1)

35. Wood burning fireplaces and other wood burning devices are prohibited. (AQMD Rule 445) 36. All duct and other related air distribution component openings shall be covered with tape, plastic, or sheet metal until the final startup of the

heating, cooling and ventilating equipment. (4.504.1) 37. Architectural paints and coatings, adhesives, caulks and sealants shall comply with the Volatile Organic Compound (VOC) limits listed in Tables

38. The VOC Content Verification Checklist, Form GRN 2, shall be completed and verified prior to final inspection approval. The manufacturer 's specifications showing VOC content for all applicable products shall be readily available at the job site and be provided to the field inspector for

verification. (4.504.2.4) 39. All new carpet installed in the building interior shall meet the testing and product requirements of one of the following: i. Carpet and Rug Institute's Green Label Plus Program

ii. California Department of Public Health 's Specification 01350 iii. NSF/ANSI 140 at the Gold level iv. Scientific Certifications Systems Indoor Advantage ™ Gold (4.504.3)

40. All new carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

41. 80% of the total area receiving resilient flooring shall comply with one or more of the following: i. Certified as a CHPS Low-Emitting Material in the CHPS High Performance Products Database

ii. Certified under UL GREENGUARD Gold iii. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program

SITE PLAN NOTES:

REQUIREMENTS OF SECTION R403.1.7. (SEE FIG. R403.1.7.1)

iv. Meet the California Department of Public Health 's Specification 01350 (4.504.4) 42. New hardwood plywood, particle board, and medium density fiberboard composite wood products used in the interior or exterior of the building

shall meet the formaldehyde limits listed in Table 4.504.5. (4.504.5) 43. The Formaldehyde Emissions Verification Checklist, Form GRN 3, shall be completed prior to final inspection approval. The manufacturer 's specifications showing formaldehyde content for all applicable wood products shall be readily available at the job site and be provided to the field inspector for verification. (4.504.5)

44. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed until it is inspected and found to be satisfactory by the building inspector. (4.505.3) 45. The heating and air-conditioning systems shall be sized and designed using ANSI/ACCA Manual J2011, ANSI/ACCA 29-D-2014 or ASHRAE

handbooks and have their equipment selected in accordance with ANSI/ACCA 3 Manual S-2014. (4.507.2)

EXTERIOR WALLS OF DWELLINGS AND ACCESSORY BUILDINGS LESS THAN 5-FT. (NON-SPRINKLERED) / 3-FT. (SPRINKLERED) O THE PROPERTY LINE SHALL BE 1-HOUR FIRE-RESISTANCE-RATED CONSTRUCTION. (R302.1, T-R302.1(1) & (2))

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. THE AREA OF EXTERIOR WALL OPENINGS OF NON-SPRINKLERED DWELLINGS AND ACCESSORY BUILDINGS LOCATED ≥ 3-F AND <5-FT. TO THE PROPERTY LINE SHALL BE LIMITED TO 25% OF THE WALL AREA. THE AREA OF EXTERIOR WALL OPENINGS

SPRINKLERED BUILDINGS. (T-R302.1(1) & (2)) 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 ≥ 2-FT. AND < 5-FT.(NON-SPRINKLERED) / 3-FT.(SPRINKLERED) TO THE PROPERTY LINE SHALL BE OF AT LEAST 1-HOUR FIRE-RESISTANCE-

IS UNLIMITED WHEN EXTERIOR WALLS ARE LOCATED ≥ 5-FT FOR NON-SPRINKLERED BUILDINGS AND ≥ 3-FT. FOR

RATED ON THE UNDERSIDE. (R302.1, T-R302.1(1) & (2)) BUILDINGS ADJACENT TO ASCENDING OR DESCENDING SLOPES SHALL MAINTAIN SETBACK ACCORDING TO THE

SECURITY REQUIREMENTS:

roof, balcony, or similar surface which is within 8 ft. of the utility pole or similar structures. (6707)

1. All entry doors to dwelling units or guest rooms shall be arranged so that the occupant has a view of the area immediately outside the door without opening the door. Such view may be provided by a door viewer, through windows located in the vicinity of the door or through view ports in the door or adjoining wall. (6706)

Screens, barricades, or fences made of a material which would preclude human climbing shall be provided at every portion of every

Wood flush-type doors shall be 1 3/8" thick minimum with solid core construction. 91.6709.1 - Door stops of in-swinging doors shall be of one-piece construction with the jamb or joined by rabbet to the jamb. (6709.4)

4. Every door in a security opening for an apartment house shall be provided with a light bulb (60 watt min.) At a maximum height of

5. All pin-type door hinges accessible from outside shall have non-removable hinge pins. Hinges shall have min. 1/4" dia. steel jamb stud with 1/4" min. protection. The strike plate for latches and holding device for projecting dead bolts in wood construction shall be secured to the jamb and the wall framing with screws no less than 2-1/2" long. (91.6709.5, 6709.7)

Provide dead bolts with hardened inserts; deadlocking latch with key-operated locks on exterior. Doors must be operable from the inside without a key, special knowledge, or special effort (latch not required in B. F. and S occupancies). (6709.2)

Straight dead bolts shall have a min. throw of 1" and an embedment of not less than 5/8", and a hook-shaped or an expanding-lug deadbolt shall have a minimum throw of 3/4". (6709.2)

8. The use of a locking system which consists of a deadlocking latch operated by a doorknob and a deadbolt operated by a nonremovable thumb turn which is independent of the deadlocking latch and which must be separately operated, shall not be considered as a system which requires special knowledge or effort when used in dwelling units. The door knob and the thumb turn which operates the deadbolt shall not be separated by more than 8 inches.

9. Wood panel type doors must have panels at least 9/16 in. thick with shaped portions not less than 1/4 in. thick and individual panels must be no more than 300 sq. in. in area. Mullions shall be considered a part of adjacent panels except mullions not over 18 inches long may have an overall width of not less than 2 inches. Stiles and rails shall be of solid lumber in thickness with overall dimensions of not less than 1 3/8 inches and 3 inches in width. (91.6709.1 item 2)

10. Sliding doors shall be provided with a device in the upper channel of the moving panel to prohibit raising and removing of the moving panel in the closed or partially open position. (6710)

11. Sliding glass doors shall be equipped with locking devices and shall be so constructed and installed that they remain intact and engaged when subjected to the tests specified in Sec. 6717.1

12. Metal or wooden overhead or sliding doors shall be secured with a cylinder lock, padlock with a min. 9/32" diameter hardened steel shackle and bolted, hardened steel hasps, metal slide board, bolt or equivalent device unless secured electrically operated. (6711)

13. Provide metal guides at top and bottom of metal accordion grate or grille-type doors and cylinder locks or padlocks. Cylinder guards shall be installed on all cylinder locks whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping

14. In B, F, M, and S occupancies, panes of glazing with at least one dimension greater than 5 in. but less than 48 in, shall be constructed of tempered or approved burglary-resistant material or protected with metal bars or grilles (6714)

15. Glazed openings within 40" of the door lock when the door is in the closed position, shall be fully tempered glass or approved burglary resistant material, or shall be protected by metal bars, screens or grills having a maximum opening of 2". The provisions of this section shall not apply to view ports or windows which do not exceed 2" in their greatest dimensions. (6713)

16. Louvered windows shall be protected by metal bars or grills with openings that have at least one dimension of 6" orless, which are constructed to preclude human entry. (6715.3)

17. Other openable windows shall be provided with substantial locking devices. In B, F, M and S occupancies, such devices shall be glide bars, bolts, cross-bars, and/or padlocks with minimum 9/32" hardened steel shackles and bolted, hardened steel hasps. (6715.2)

18. Sliding windows shall be provided with a device in the upper channel of the moving panel to prohibit raising and removing of the moving panel in the closed or partially open position. 6715.1

19. Sliding windows shall be equipped with locking devices and shall be so constructed and installed that they remain intact and engaged when subjected to the tests specified in Sec. 6717.2.

20. Any release for metal bars, grills, grates or similar devices constructed to preclude human entry that are installed shall be located on the inside of the adjacent room and at least 24 inches from the closest opening through such metal bars, grills, grates or similar devices that exceeds two inches in any dimension. (91.6715.4)

21 All other openings must be protected by metal bars or grilles with openings of not less than 6 inches in one dimension. (91.6716)

shows temperature setting and service Requires 120V power supply Industry Leading! Low Flow

ECOH200DVLN-2

with EcoNet®

11,000-199,900

BTU/h Only

(Outdoor model

also available)

Warranty

PERFORMANCE PLATINUM*

Environmentally Friendly

requirements

clearance of 1/2 inch

upgrade kits are available

5-year parts and 1-year labor

Activation - Minimum flow rate of .26 GPM and minimum activation flow rate of .40 GPM ensures hot water even in low demand situations Recirculation Pump Kit-Ready -

Efficiency

heat exchanger

93 UEF with stainless steel condensing

Easy Installation and Service

NEW! Vent up to 150 ft with 3" PVC

1/2" Gas line compatibility up to 24 ft.1

hanging bracket for time savings

■ NEW! 2" venting connections

and 60 ft with 2" PVC

(indoor models only)

(optional)

Performance

Built-in condensate neutralizer

NEW! Includes easy to install

Exclusive! Maintenance Notice

Self-diagnostic system for easy

High-altitude capability – up to

8,400 ft. elevation above sea level²

10 ft. of thermostat wire included -

Digital remote control now pre-wired!

installation and service

Setting - Alerts homeowner, after

500 hours of use, to call for service

Providing faster hot water at the tap and savings of up to 12,000 gallons water/year3 Exclusive! Hot Start Programming

Minimizes cold water bursts by staying in ready-fire state for back-to-back hot water needs Technology

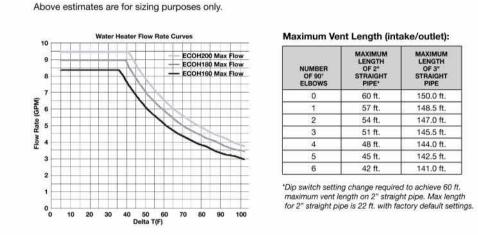
EcoNet® Enabled – all Tankless products from 2010 to present can connect to EcoNet mobile app via Tankless EcoNet Accessory Kit (REWRA630TWH)

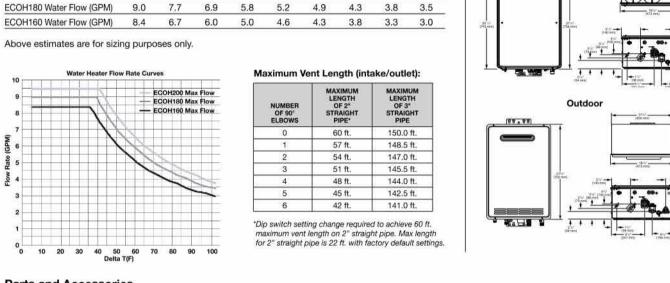
For higher demand applications, easily link multiple tankless units to operate as one system (20 units max. additional accessories required)

PERFORMANCE PLATINUM™ High Efficiency Condensing Tankless Gas Water Heaters are designed to provide continuous hot water Low Emissions – Ultra low NOx burner meets SCAQMD rule 1146.2 Exclusive! Water Savings Setting -Save up to 1,100 gallons water/year4 by reducing flow at the tap until set temperature is achieved (optional) Exclusive! Overheat film wrap prevents dangerous temperatures and provides industry best side-to-side Indoor Direct Vent Outdoor Maximum water temperature is 140°F PERFORMANCE PLATINUM For higher temperature applications, **High Efficiency Condensing Tankless** 12-Year heat exchanger – residential, 11,000-199,900 BTU/h 5-year heat exchanger – commercial, See Warranty Certificate for complete information ALCH CHINGS (IN SOLD STATE OF PERFORMANCE PLATINUM Tankless PERFORMANCE PLATINUM Tankless Water Heater with EcoNet® WiFi Included Shares all efficiency, performance, technology, warranty and safety values as standard models with added WiFi capability. **Smart Home Features** Water leak detection alert and system shut off (indoor models only) - may qualify for insurance discounts Mobile alerts for notifications/maintenance reminders Mobile gas and water usage reports Integration with NEST & WINK smart home systems **Product Includes** Factory-installed translator Indoor Direct Vent Leak detection cable (for indoor models) Wi-Fi Module, connection cable and power cord App available free in App Store and Google Play for Android

ECOH180DVLN-2 11,000- Indoor 180,000 Direct Vent 3 - 4 85° to 140° F 0.26/0.40 5.2 7.7 9.0 3/4 3/4 27-1/2 18-1/2 9-3/4 2" or 3" PVC 2-Pipe 82 0.93 ECOH180XLN-2 11,000-180,000 Outdoor 3 - 4 85° to 140° F 0.26/0.40 5.2 7.7 9.0 3/4 3/4 27-1/2 18-1/2 9-3/4 N/A 82 0.93 ECOH160DVLN-2 | 11,000- | Indoor | 3 | 85° to | 140° F | 0.26/0.40 | 4.6 | 6.7 | 8.4 | 3/4 | 3/4 | 27-1/2 | 18-1/2 | 9-3/4 | 2" or 3" | PVC 2-Pipe | 82 ECOH160XLN-2 | 11,000-157,000 | Outdoor | 3 | 85° to 140° F | 0.26/0.40 | 4.5 | 6.7 | 8.4 | 3/4 | 3/4 | 27-1/2 | 18-1/2 | 9-3/4 | N/A | 82 Based on simultaneous showers using 2.5 GPM flow rate pre-mixed with cold water line. Flow rates vary depending on temperature of incoming cold water and water heater set temperature. Refer to flow rate curves for accurate sizing. Uniform Energy Factor and Energy Factor based on Department of Energy (D.O.E.) requirements. All models are available in Natural Gas and Propane (LP). For Propane replace the N with P when ordering. SCAQMD 1146.2 compliant. Factory set maximum temperature is 120° F. See Use and Care Manual for setting. Consult factory for information on sizing the application. Vent Termination Kits are required for Direct Vent models. Contact your distributor for details. Proper gas pressure must be ensured to supply tankless gas water heaters – up to 199,900 BTU/h for ECOH200 models, up to 180,000 BTU/h for ECOH180 models, up to 157,000 BTU/h for ECOH160 models. (Consult your gas supplier)

12/20 FORM NO. THD-3197 Rev. 2





Indoor Direct Vent

Venting & terminations - 2" or 3" PVC, recess boxes, pipe covers, extra remote controls, EZ-Link™ cable, manifolds and cables, service valve kits, service parts, flush kits, recirculation pump kits and AllClear™ water treatment system. For more information on Tankless parts and accessories, see the Parts and Accessories Catalog or call 866-720-2076.

In keeping with its policy of continuous progress and product improvement. Rheem reserves the right to make changes without notice

Rheem Water Heating • 1115 Northmeadow Parkway, Suite 100 Roswell, Georgia 30076 · www.rheem.com

PERFORMANCE **PLATINUM** Condensing Tankless Specifications

Temperature Rise (° F)

35° 45° 50° 60° 67° 70° 80° 90° 100°

ECOH200 Water Flow (GPM) 9.5 8.5 7.7 6.4 5.7 5.5 4.8 4.3 3.8

85° to 140° F 0.26/0.40 5.7 8.5 9.5 3/4 3/4 27-1/2 18-1/2 9-3/4 2' or 3' PVC 2-Pipe 82

85° to 140° F 0.26/0.40 5.6 8.5 9.5 3/4 3/4 27-1/2 18-1/2 9-3/4 N/A 82

85° to 140° F 0.26/0.40 5.6 8.5 9.5 3/4 3/4 27-1/2 18-1/2 9-3/4 N/A 82

3 - 4 85° to 140° F 0.26/0.40 5.2 7.7 9.0 3/4 3/4 27-1/2 18-1/2 9-3/4 2* or 3* PVC 2-Pipe 82

0.26/0.40 5.7 8.5 9.5 3/4 3/4 27-1/2 18-1/2 9-3/4 2* or 3* PVC 2-Pipe 82

12/20 FORM NO. THD-3197 Rev. 2

²anasonic

Split System Submittal Data

System: KS30NKUA Indoor: CS-KS30NKU Outdoor: CU-KS30NKUA Wall Mounted Air Conditioner

Location:	
Engineer:	
Submitted to:	
Submitted by:	
Reference:	

230/208/1/60

16.5-18.0

eneral Data

Power (V/P/Hz)

ircuit Ampacity (A)

Fuse Size, Max.[A]

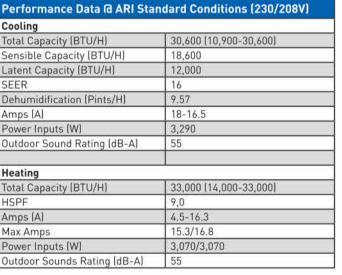
Date:	
Construction:	
Unit#:	
Drawing#:	

Compressor	DC Twin Rotary (Inverter)			
No. Used	1			
R.L. Amps - L.R. (A)	16.5-31.0			
Outdoor Unit				
an Type	Propeller			
Dia (in.) - No. Speeds	19-9/32"-Auto (Hi, Me, Lo)			
Type Drive	DC Motor			
No. Poles (RPM)	8-750			
No. Motors (W)	1-142			
L. Amps (A)	11.6/16.1			
Coil Type	Aluminum Fin and Copper Pipe			
in Type - Pipe Type	Slit Plate - Inner Rifled			
Rows - F.P.I.	2-21.2			
Face Area (sq.ft.)	8.05			
ube Size (in.)	3/8"			
ndoor Unit				
an Type	Cross Flow			
Dia. and Length	1 / 3-15/16"x 32"			
No. Speeds	Auto and 3 steps			
No. Poles (RPM (Cool / Heat), High)	8-1,370			
No. Motors (W)	47			
CFM [Hi/Med/Low]	630/530/412			
Operating Sound-Hi/Me/Lo/ dB-A	49 / 44 / 39			
Operation Sound Hi/Me/Lo/Qt BB-A	49 / 44 / 39 / 32			
F.L. Amps	0.4			
Coil Type	Aluminum Plate Fin & Copper Tube			
in Type - Pipe Type	Slit Plate - Inner Rifled			
Rows - F.P.I.	2-19.5			
Face Area (sq. ft.)	4.55			
Tube Size (in.)	3/8"			

rain Connection Size (in.) 1-1/4"



Refrigerant	R410A			
Lbs R410a (outdoor unit)	6.5			
Refrigerant Control	Electronic Expansion Valve			
Refrigerant Tubing Connections	Flare			
Line Length, Max (ft.)	165"			
Line Difference, Max (ft.)	50' (outdoor lower), 100' (outdoor higher)			
Line Size (in. O.D. Discharge)	3/8"			
Line Size (in. O.D. Suction)	5/8"			
Pre-charge, tubing length at shipment	100'			
Dimensions (HxWxD)				
Indoor Unit (Crated) (in.)	12-7/32" x 44-7/8" x 14-31/32"			
Indoor Unit (Uncrated) (in.)	11-3/16" x 41-15/16" x 9-1/16"			
Outdoor Unit (Crated) (in.)	42-3/8" x 40" x 16-3/8"			
Outdoor Unit (Uncrated) (in.)	35-13/16" x 37-1/2" x 13-3/8"			
Weight (lbs.)				
(Indoor) Net	32.0			
(Indoor) Shipping	39.7			
(Outdoor) Net	183			
(Outdoor) Shipping	205			
(Indoor) Shipping Volume (cu.ft.)	4.59			
(Outdoor) Shipping Volume (cu.ft.)	15.88			



Features	
Controls	Microprocessor
Remote Controller	LCD Wireless Type, Temp. Sens Built In
Temperature Control	IC Thermistor
Timer	24-Hour ON/ OFF Timer, 1-Hr. OFF Timer
Night Setback	Included
Unoccupied Mode	Included

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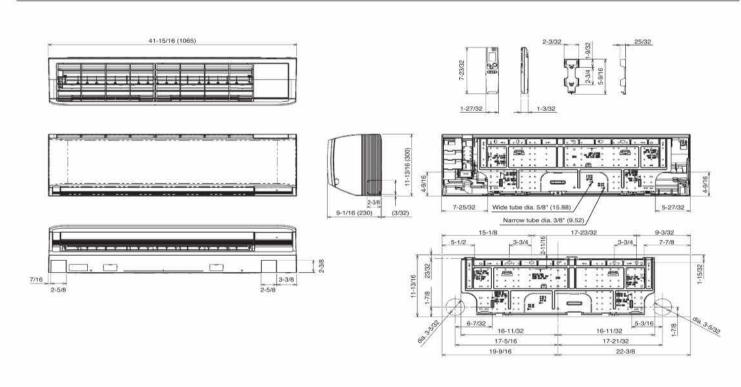
High Power	Included
Air Louver, Horizontal	Manual
Air Louver, Vertical	Automatic
Power Failure Automatic Restart	Included
Quiet Operation	Included
Self-Diagnosis	Included
Air Filter	Washable, Anti-Mold
Options	4
Options	Available
Options	4
Options Refrigerant Line Set	Available
Options Refrigerant Line Set Fresh Air Intake	Available N/A
Options Refrigerant Line Set Fresh Air Intake Air Duct Extension	Available N/A N/A Available / Model Number-
Options Refrigerant Line Set Fresh Air Intake Air Duct Extension Hard Wired Remote Control	Available N/A N/A Available / Model Number- CZ-RD515U

Available on the App Store

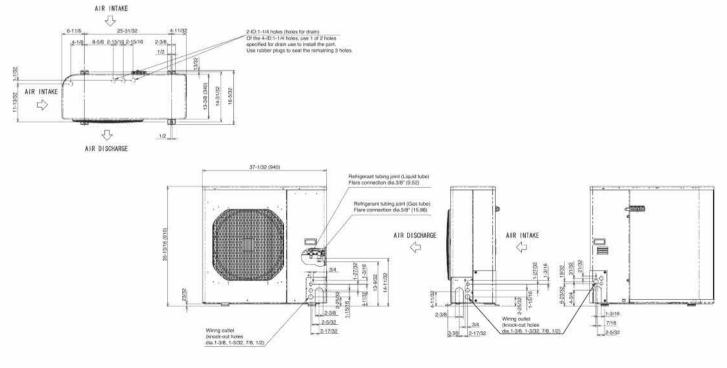
Operating Range	Indoor Air Intake Temp	Outdoor Air Intake Temp
Cooling (Max)	95F DB/71F WB	115F DB
Cooling (Min)	67F DB/57F WB	0F DB
Low Ambient Control Included		

Remote-Control Bracket

Indoor Dimensions



Outdoor Dimensions



Panasonic

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The new degree of comfort

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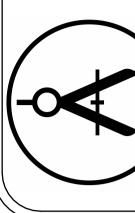
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OWNER'S NAME: OWNER'S ADRESS **NOTES:**

SCALE: **DATE:** 08.19.2024

Page 2 of 2

NOTES:

SCALE: **DATE:** 08.19.2024

ICC-ES Evaluation Report

ESR-1389

Reissued January 2024

Revised March 2024 - CBC Supplement Subject to renewal January 2025

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DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION	REPORT HOLDER: CERTAINTEED LLC	EVALUATION SUBJECT CERTAINTEED ASPHALT SHINGLES
Section: 07 31 13— Asphalt Shingles		

This report also contains:



1.0 EVALUATION SCOPE

Compliance with the following codes:

■ 2021, 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)

■ 2021, 2018, 2015, 2012 and 2009 <u>International Residential Code® (IRC)</u>

■ 2013 Abu Dhabi International Building Code (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

■ Weather resistance

■ Fire classification Wind resistance

2.0 USES

The CertainTeed asphalt shingles described in this report comply with ASTM D3462 and are Class A roof coverings when installed as described in this report.

3.0 DESCRIPTION

3.1 General:

CertainTeed asphalt shingles are available as three-tab, four-tab, no cut-out and laminated asphalt shingle roof covering materials. See Table 1 and Figure 1 for recognized product names, shingle types, manufacturing locations, overall dimensions, installed weights, maximum exposure to the weather, and fastening details. The shingles are self-sealing by means of adhesive strips located on either the weather side or the underside. See Figure 1 for adhesive strip location for field shingles and Starter Strip shingles.

3.2 Three-tab, Four-tab and No Cut-out Shingles:

Three-tab, four-tab and no cut-out shingles are composed of a single layer of fiberglass mat, impregnated and coated with asphalt on both sides, and surfaced with mineral roofing granules on the weather side and a mineral release agent on the back side.



Reissued June 2023



ES

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ICC-ES Evaluation Report ESR-3537

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 31 13—Asphalt Shingles

REPORT HOLDER:

CERTAINTEED LLC

EVALUATION SUBJECT:

CERTAINTEED ASPHALT SHINGLES

1.0 EVALUATION SCOPE

Compliance with the following codes: ■ 2021, 2018, 2015, 2012 and 2009 International Building

Code® (IBC) ■ 2021, 2018, 2015, 2012 and 2009 International

Residential Code® (IRC) ■ 2013 Abu Dhabi International Building Code (ADIBC)† [†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced

Properties evaluated:

■ Weather resistance Fire classification

Wind resistance

2.0 USES The CertainTeed asphalt shingles described in this report are alternatives to asphalt shingles complying with IBC Section 1507.2 and IRC Section R905.2, and are Class A roof coverings when installed as described in this report.

3.0 DESCRIPTION

3.1 General: CertainTeed asphalt shingles are available as three-tab, four-tab, no cut-out and laminated asphalt shingle roof covering materials, and have been qualified for wind resistance as noted in Section 4.3. See Table 1 and Figure 1 for recognized product names, shingle types, manufacturing locations, overall dimensions, installed weights, maximum exposure to the weather, and fastening details. The shingles are self-sealing by means of adhesive strips located on either the weather side or the underside. See Figure 1 for adhesive strip location for field shingles and Starter Strip shingles.

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This report is subject to renewal June 2024.

3.2 Three-tab Shingles, Four-tab Shingles and No Cutout Shingles:

Three-tab, four-tab and no cut-out shingles are composed of a single layer of fiberglass mat, impregnated and coated with asphalt on both sides, and surfaced with mineral roofing granules on the weather side and a mineral release agent

on the back side. 3.3 Laminated Shingles:

Laminated shingles, including two-layer laminated, threelayer laminated and tri-laminate laminated shingles, are composed of multiple thicknesses of coated and surfaced fiberglass mat, cut and bonded together in different patterns. The weather side is surfaced with mineral roofing granules, and the back side is surfaced with a mineral release agent.

3.4 Accessory Shingles:

3.4.1 Hip and Ridge Shingles: Hip and ridge shingles are factory-made shingles to be used for covering hips and ridges. The hip and ridge shingles are composed of the same materials as the roof shingles. Some of the hip and ridge shingles have perforations that extend from the top of the cut-out to the top of the shingle, which facilitate the tearing of the shingle into three or four equal pieces. Others are manufactured as single hip and ridge units.

3.4.2 Starter Strip Shingles: Starter Strip shingles are factory-made shingles to be used as the starter course (under the first course of roof shingles). The Starter Strip shingles are composed of the same materials as the roof shingles. The shingles are supplied in 7-inch-by-36-inchlong (178 by 914 mm); 10-inch-by-36-inch-long (254 by 914 mm); or 7-inch-by-39³/₈-inch-long (178 by 1000 mm) strips. As an alternative to factory-made starter strips, starter strips can be formed by removing the lower tab portions of the factory-made shingles, except in the case of the Presidential Shake and Presidential Shake TL shingles. For Presidential Shake and Presidential Shake TL shingles, the Presidential Starter shingles consist of one 131/4-inchwide-by-40-inch-long (337 mm by 1016 mm) base shingle and one 11¹/₄-inch-wide-by-40-inch-long (286 mm by 1016 mm) base shingle.

3.5 Fasteners:

Fasteners must comply with ASTM F1667 and must be minimum No. 12 gage [0.105-inch-diameter (2.67 mm)] shank, 3/8-inch-diameter-head (9.5 mm), galvanized steel, stainless steel, aluminum or copper roofing nails. Fasteners

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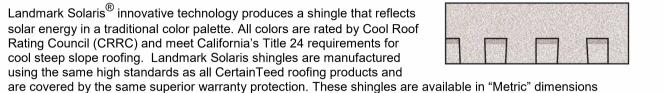


Technical Data Sheet

Landmark Solaris®

PRODUCT INFORMATION

Landmark Solaris[®] innovative technology produces a shingle that reflects solar energy in a traditional color palette. All colors are rated by Cool Roof Rating Council (CRRC) and meet California's Title 24 requirements for cool steep slope roofing. Landmark Solaris shingles are manufactured using the same high standards as all CertainTeed roofing products and



13 1/4" x 38 3/4". This product also features CertainTeed's NailTrak® that offers a wider nailing area.

Landmark Solaris algae-resistant (AR) shingles have the additional attribute of resisting the growth of algae especially in damp regions. AR shingles are not available in all regions.

Colors: Please refer to product brochure or CertainTeed website for the colors available in your region.

	Solar Radiative Properties							
Color	CRRC		Solar ectance	Thermal	Emittance	Solar Ref	lective Index	Energy Star
	Product ID#	Initial	Aged	Initial	Aged	Initial	Aged	Certified?
Aged Cedar **	0668-0055	0.26	0.24	0.92	0.90	28	24	Yes
Birchwood	0668-0084	0.21	0.21	0.92	0.83	21	17	No
Burnt Sienna **	0668-0153	0.20	Pending	0.92	Pending	20	20 *	No
Crystal Gray **	0668-0058	0.27	0.26	0.93	0.90	29	27	Yes
Georgetown Gray **	0668-0116	0.20	0.20	0.91	0.92	19	20	No
Graphite **	0668-0155	0.21	Pending	0.91	Pending	21	21 *	No
Heather Blend **	0668-0117	0.20	0.20	0.91	0.92	19	20	No
Mist White **	0668-0071	0.26	0.28	0.92	0.90	28	29	Yes
Moiré Black	0668-0129	0.19	0.18	0.91	0.92	18	17	No
Mojave Tan	0668-0115	0.19	0.20	0.88	0.90	17	19	No
Resawn Shake **	0668-0118	0.19	0.20	0.92	0.93	19	20	No
Silver Birch **	0668-0072	0.26	0.27	0.90	0.89	27	28	Yes
Weathered Wood **	0668-0119	0.20	0.21	0.91	0.91	19	21	No

* Aged SRI is calculated using the California Energy Commission's Solar Reflective Index (SRI) Calculation Worksheet. ** Product meets the cool roofing requirements of Green Building Standards Code of Los Angeles County for residential buildings.

Limitations: Use on roofs with slopes greater than 2" per foot. Low-slope applications (2:12 to < 4:12) require additional underlayment. In areas prone to snow and ice, apply CertainTeed WinterGuard® Waterproofing Shingle Underlayment, or its equivalent along the eaves, according to application instructions provided with the product and on the shingle package.

Product Composition: Landmark Solaris shingles are composed of a fiber glass mat base. Ceramic-coated mineral granules with high solar reflectance are tightly embedded in carefully refined, water-resistant asphalt. Two pieces of the shingle are firmly laminated together in special tough asphaltic cement. All Landmark Solaris shingles have self-sealing adhesive strips.

Technical Data Sheet Landmark Solaris

Applicable Standards: ASTM E108 Class A Fire Resistance UL 790 Class A Fire Resistance

CSA Standard A123.5 ICC-ES ESR-1389 & ESR-3537 ASTM D3018 Type I Florida Product Approval # FL5444 ASTM D3161 Class F Wind Resistance Can be used to comply with California Title 24, Miami-Dade County Product Control Approved Part 6 (Steep Slope) Meets TDI Windstorm Requirements

ASTM D7158 Class H Wind Resistance

Technical Data:

ASTM D3462

Weight/Square (approx.) 216 lb Shingles/Square (approx.) 13 1/4" x 38 3/4" Dimensions (overall) Weather Exposure 5 5/8"

*Based on 100 sq. ft. of exposed area.

Detailed installation instructions are supplied on each bundle of shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

Hips and Ridges: Use CertainTeed Shadow Ridge® or Mountain Ridge® shingles of a like color for capping hips and ridges.

These shingles do not require maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

WARRANTY

Landmark Solaris shingles carry a Lifetime Limited Warranty and 10-year SureStart™ protection when applied to stated CertainTeed application instructions for this product. Landmark Solaris AR shingles carry a 10-year algae resistance warranty. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at www.certainteed.com).

FOR MORE INFORMATION Sales Support Group: 800-233-8990

Web site: <u>www.certainteed.com</u>

CertainTeed 20 Moores Road Malvern, PA 19355

© 12/20 CertainTeed

1000VDC

10 AWG

IP 67

-40°F to 194°F

RNG-100MB

Premium 100W Monocrystalline Solar Panel

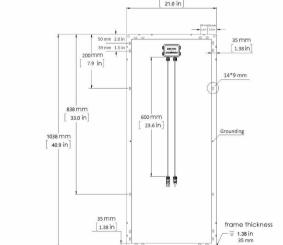
Floatrical Data	•	NAII	Dete
Electrical Data		Mechanical	Data
Maximum Power at STC*	100 W	Solar Cell Type	Monocrystalline (4.92 x 4
Optimum Operating Voltage (V _{mp})	17.7 V	Number of Cells	32
Optimum Operating Current (Imp)	5.70 A	Dimensions	40.9 x 21.0 x 1.4 in (1038 x 533 x 3
Open Circuit Voltage (V _{oc})	21.2 V	Weight	15 lbs (6
Short Circuit Voltage (I _{sc})	6.10 A	Front Glass	Tempered Glass 0.13 in (3.
Cell Efficiency	22%	Frame	Black Anodized Aluminiun
Maximum System Voltage	600 VDC UL	Connectors	MC4 Conr
Maximum Series Fuse Rating	10 A	Fire Rating	С

Thermal Characteris	t

Thermal Characteristics	
Operating Module Temperature	-40°C to +80°C
Nominal Operating Cell Temerature (NOCT	Γ) 47±2°C
Temperature Coefficient of Pmax	-0.38%/°C
Temperature Coefficient of Voc	-0.28%/°C
Temperature Coefficient of Isc	0.06%/°C

Junction Box	
IP Rating	IP 65
Diode Type	HY 10SQ050
Number of Diodes	2 Diode(s)
Output Cables	12 AWG (2.00 ft long)

Module Diagram



RNG-100MB Characteristics Versus Voltage

Rated Current

IP Rating

IV-Curve

Maximum Voltage

Temperature Range

Maximum AWG Size Range

Voltage (V)

*All specifications and data described in this data sheet are tested under Standard Test Conditions (STC - Irradiance: 1000W/m², Temperature: 25°C, Air Mass: 1.5) and may deviate marginally from actual values. Renogy and any of its affiliates has reserved the right to make any modifications to the information on this data sheet without notice. It is our goal to supply our customers with the most recent information regarding our products. These data sheets can be found in the downloads section of our website, www.renogy.com

> Renogy | www.renogy.com | techsupport@renogy.com | T: 800-330-8678 2775 E. Philadelphia St., Ontario, CA 91761

RNG-100MB Premium 100W Monocrystalline Solar Panel

RENOGY

Key Features Sleek design and a durable frame, the Renogy Premium 100 Watt 12 Volt Monocrystalline Panel provides you with the highest efficiency per area and

- is the perfect item for off-grid applications. High module conversion efficiency
- Top ranked PTC rating
- Quick and inexpensive mounting
- 100% EL testing on all Renogy modules No hot spots guaranteed



Potential Uses

Material and Workmanship Warranty

The Renogy 100 Watt Monocrystalline Panel can be

used in various off-grid applications that include 12

and 24 volts arrays, water pumping systems, signal-

ing systems and other off-grid applications.

Renogy | www.renogy.com | techsupport@renogy.com | T: 800-330-8678 2775 E. Philadelphia St., Ontario, CA 91761

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for

combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

OWNER'S NAME: OWNER'S ADRESS

DATE: 08.19.2024

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2024 Supplement) **CHAPTER 3 DIVISION 4.2 ENERGY EFFICIENCY** 4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. 4.304 OUTDOOR WATER USE **GREEN BUILDING** When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the 4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with 4.201 GENERAL **SECTION 301 GENERAL** requirements of Section 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water parking space served by electric vehicle supply equipment or designed as an EV charging space shall count as at 4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Efficient Landscape Ordinance (MWELO), whichever is more stringent least one standard automobile parking space only for the purpose of complying with any applicable minimum parking Commission will continue to adopt mandatory standards. **301.1 SCOPE.** Buildings shall be designed to include the green building measures specified as mandatory in space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details. the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code Regulations, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are 4.303 INDOOR WATER USE 4.106.4.2.2 Multifamily dwellings, hotels and motels **301.1.1 Additions and alterations. [HCD]** The mandatory provisions of Chapter 4 shall be applied to available at: https://www.water.ca.gov/ 4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and additions or alterations of existing residential buildings where the addition or alteration increases the urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, 1. EV ready parking spaces with receptacles. building's conditioned area, volume, or size. The requirements shall apply only to and/or within the DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE specific area of the addition or alteration. a. Hotels and motels. Forty (40) percent of the total number of parking spaces shall be equipped **EFFICIENCY** Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving with low power Level 2 EV charging receptacles. The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE completion, certificate of occupancy, or final permit approval by the local building department. See Civil b. Multifamily parking facilities. Forty (40) percent of the total number of parking spaces shall be Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential 4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such buildings affected and other important enactment dates. this section shall be located in at least one assigned parking space per dwelling unit where Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing assigned parking is provided but need not exceed forty (40) percent of the total number of assigned lighting fixtures are not considered alterations for the purpose of this section. **4.303.1.1 Water Closets**. The effective flush volume of all water closets shall not exceed 1.28 gallons per parking spaces provided on the site. flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or 4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING Specification for Tank-type Toilets. **Exception:** Areas of parking facilities served by parking lifts, including but not limited to improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. 4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 automated mechanical-access open parking garages as defined in the California Building Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume percent of the non-hazardous construction and demolition waste in accordance with either Section Code; or parking facilities otherwise incapable of supporting electric vehicle charging. of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1 of two reduced flushes and one full flush. 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and management ordinance. c. Receptacle power source. EV charging receptacles in multifamily parking facilities shall be other important enactment dates. **4.303.1.2** Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. provided with a dedicated branch circuit connected to the dwelling unit's electrical panel, unless The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush. **Exceptions:** determined as infeasible by the project builder or designer and subject to concurrence of the local 301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of Excavated soil and land-clearing debris. individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential 2. Alternate waste reduction methods developed by working with local agencies if diversion or **Exception:** Areas of parking facilities served by parking lifts, including but not limited to buildings, or both. Individual sections will be designated by banners to indicate where the section applies 4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 recycle facilities capable of compliance with this item do not exist or are not located reasonably automated mechanical-access open parking garages as defined in the California Building specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA *Code*; or parking facilities otherwise incapable of supporting electric vehicle charging. high-rise buildings, no banner will be used. WaterSense Specification for Showerheads. 3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility. d. Receptacle configurations. 208/240V EV charging receptacles shall comply with one of 4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one the following configurations: **SECTION 302 MIXED OCCUPANCY BUILDINGS** showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by **4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN**. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only 1. For 20-ampere receptacles, NEMA 6-20R 302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building allow one shower outlet to be in operation at a time. necessary and shall be available during construction for examination by the enforcing agency. 2. For 30-ampere receptacles, NEMA 14-30R shall comply with the specific green building measures applicable to each specific occupancy. 3. For 50-ampere receptacles, NEMA 14-50R Note: A hand-held shower shall be considered a showerhead. 1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, 1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall reuse on the project or salvage for future use or sale. 2. EV ready parking spaces with EV chargers. comply with Chapter 4 and Appendix A4, as applicable. 4.303.1.4 Faucets. 2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or 2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California a. Hotels and motels. Ten (10) percent of the total number of parking spaces shall be equipped Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with 4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall 3. Identify diversion facilities where the construction and demolition waste material collected will be with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped Chapter 4 and Appendix A4, as applicable. 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. 4. Identify construction methods employed to reduce the amount of construction and demolition waste **DIVISION 4.1 PLANNING AND DESIGN** b. Multifamily parking facilities. Ten (10) percent of the total number of parking spaces shall be 4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory 5. Specify that the amount of construction and demolition waste materials diverted shall be calculated **ABBREVIATION DEFINITIONS:** equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential by weight or volume, but not by both. equipped with J1772 connectors. Where common use parking or unassigned parking is provided, Department of Housing and Community Development buildings shall not exceed 0.5 gallons per minute at 60 psi. EV chargers shall be located in common use or unassigned parking areas and shall be available California Building Standards Commission **4.408.3 WASTE MANAGEMENT COMPANY.** Utilize a waste management company, approved by the Division of the State Architect, Structural Safety for use by all residents or guests. 4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver enforcing agency, which can provide verifiable documentation that the percentage of construction and OSHPD Office of Statewide Health Planning and Development more than 0.2 gallons per cycle. demolition waste material diverted from the landfill complies with Section 4.408.1. Where low power Level 2 EV charging receptacles or Level 2 EV chargers are installed beyond Low Rise the minimum required, an automatic load management system (ALMS) may be used to reduce **4.303.1.4.4 Kitchen Faucets.** The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons **Note:** The owner or contractor may make the determination if the construction and demolition waste the maximum required electrical capacity to each space served by the ALMS. The electrical system Additions and Alterations per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not materials will be diverted by a waste management company. and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Note: Where complying faucets are unavailable, aerators or other means may be used to achieve RESIDENTIAL MANDATORY MEASURES reduction. Section 4.408.1 4.106.4.2.2.1 Electric vehicle charging stations (EVCS). Electric vehicle charging stations required by Section 4.106.4.2.2, Item 2, with EV chargers installed shall 4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined 4.303.1.4.5 Pre-rinse spray valves. When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds **SECTION 4.102 DEFINITIONS** Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 per square foot of the building area, shall meet the minimum 65% construction waste reduction Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels (d)(7) and shall be equipped with an integral automatic shutoff. requirement in Section 4.408.1 shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable The following terms are defined in Chapter 2 (and are included here for reference) FOR REFERENCE ONLY: The following table and code section have been reprinted from the California **4.408.5 DOCUMENTATION**. Documentation shall be provided to the enforcing agency which demonstrates FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4.. 4.106.4.2.2.1.1 Electric vehicle charging stations (EVCS) spaces with EV chargers installed; dimensions pervious material used to collect or channel drainage or runoff water. WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also EVCS spaces shall be designed to comply with the following: 1. Sample forms found in "A Guide to the California Green Building Standards Code TABLE H-2 (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in The minimum length of each EVCS space shall be 18 feet (5486 mm). documenting compliance with this section. **4.106 SITE DEVELOPMENT** The minimum width of each EVCS space shall be 9 feet (2743 mm). STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY 2. Mixed construction and demolition debris (C & D) processors can be located at the California **4.106.1 GENERAL.** Preservation and use of available natural resources shall be accomplished through evaluation One in every 25 EVCS spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum Department of Resources Recycling and Recovery (CalRecycle). VALUES MANUFACTURED ON OR AFTER JANUARY 28. 2019 and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the management of storm water drainage and erosion controls shall comply with this section. EVCS space is 12 feet (3658 mm). Surface slope for this EVCS space and the aisle shall not exceed 1 4.410 BUILDING MAINTENANCE AND OPERATION unit vertical in 48 units horizontal (2.083 percent slope) in any direction. These EVCS spaces shall also PRODUCT CLASS 4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact 4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less comply with at least one of the following: MAXIMUM FLOW RATE (gpm) [spray force in ounce force (ozf)] disc, web-based reference or other media acceptable to the enforcing agency which includes all of the than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre following shall be placed in the building: or more, shall manage storm water drainage during construction. In order to manage storm water drainage a. The EVCS space shall be located adjacent to an accessible parking space meeting the requirements Product Class 1 (≤ 5.0 ozf) 1.00 during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking 1. Directions to the owner or occupant that the manual shall remain with the building throughout the property, prevent erosion and retain soil runoff on the site. life cycle of the structure. b. The EVCS space shall be located on an accessible route, as defined in the California Building Code, Product Class 2 (> 5.0 ozf and \leq 8.0 ozf) 1.20 2. Operation and maintenance instructions for the following: . Retention basins of sufficient size shall be utilized to retain storm water on the site. a. Equipment and appliances, including water-saving devices and systems, HVAC systems, Product Class 3 (> 8.0 ozf) 1.28 2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar **Exception:** Electric vehicle charging stations designed and constructed in compliance with the *California* photovoltaic systems, electric vehicle chargers, water-heating systems and other major disposal method, water shall be filtered by use of a barrier system, wattle or other method approved Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1. Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January appliances and equipment. 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)] b. Roof and yard drainage, including gutters and downspouts 4.106.4.2.2.1.2 Accessible electric vehicle charging station spaces. 3. Compliance with a lawfully enacted storm water management ordinance. c. Space conditioning systems, including condensers and air filters. In addition to the requirements in Section 4.106.4.2.2.1.1, all EV chargers, where installed, shall comply with the 4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial d. Landscape irrigation systems. Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and e. Water reuse systems. are part of a larger common plan of development which in total disturbs one acre or more of soil. EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A. Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the 3. Information from local utility, water and waste recovery providers on methods to further reduce California Plumbing Code. resource consumption, including recycle programs and locations. (Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html) 4.106.4.2.3 Reserved. 4. Public transportation and/or carpool options available in the area. **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in 5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent 4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will 4.106.4.2.4 Reserved. accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table and what methods an occupant may use to maintain the relative humidity level in that range. manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface 1701.1 of the California Plumbing Code. 6. Information about water-conserving landscape and irrigation design and controllers which conserve water include, but are not limited to, the following: 4.106.4.2.5 Electric vehicle ready space signage. Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans 7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A feet away from the foundation 2. Water collection and disposal systems CONVENIENCE FOR THE USER. 8. Information on required routine maintenance measures, including, but not limited to, caulking, French drains painting, grading around the building, etc. 4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing Water retention gardens TABLE - MAXIMUM FIXTURE WATER USE 9. Information about state solar energy and incentive programs available. 5. Other water measures which keep surface water away from buildings and aid in groundwater multi-family buildings. 10. A copy of all special inspections verifications required by the enforcing agency or this code. Where new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or FIXTURE TYPE **FLOW RATE** 11. Information from the Department of Forestry and Fire Protection on maintenance of defensible altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or space around residential structures. **Exception**: Additions and alterations not altering the drainage path. altered shall be EV capable spaces to support future Level 2 electric vehicle supply equipment. The service panel SHOWER HEADS (RESIDENTIAL) 1.8 GMP @ 80 PSI 12. Information and/or drawings identifying the location of grab bar reinforcements. or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for 4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Section 4.106.4.1 future EV charging purposes as "EV CAPABLE." **4.410.2 RECYCLING BY OCCUPANTS.** Where 5 or more multifamily dwelling units are constructed on a or 4.106.4.2. Electric vehicle supply equipment (EVSE) shall comply with the California Electrical Code. MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 LAVATORY FAUCETS (RESIDENTIAL) building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, LAVATORY FAUCETS IN COMMON & PUBLIC corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling 1. On a case-by-case basis, where the local enforcing agency has determined EV charging and 1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future 0.5 GPM @ 60 PSI ordinance, if more restrictive. USE AREAS infrastructure are not feasible based upon one or more of the following conditions: 1.1 Where there is no local utility power supply or the local utility is unable to supply adequate KITCHEN FAUCETS 1.8 GPM @ 60 PSI Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use. 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of 1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional METERING FAUCETS 0.2 GAL/CYCLE local utility infrastructure design requirements, directly related to the implementation of Section WATER CLOSET 1.28 GAL/FLUSH 4.106.4, may adversely impact the construction cost of the project. 2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional URINALS 0.125 GAL/FLUSH parking facilities. **DIVISION 4.5 ENVIRONMENTAL QUALITY SECTION 4.501 GENERAL** 4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors. service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or **SECTION 4.502 DEFINITIONS** concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 5.102.1 DEFINITIONS 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit The following terms are defined in Chapter 2 (and are included here for reference) overcurrent protective device. AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements. installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the California Electrical Code. COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, **4.106.4.1.1 Identification.** The service panel or subpanel circuit directory shall identify the overcurrent structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section location shall be permanently and visibly marked as "EV CAPABLE".

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (July 2024 Supplement)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a
compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to
nundredths of a gram (g O³/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR. Title 17, Sections 94700

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging). Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL

4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

- 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.
- 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification. 2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT _{1,2} (Less Water and Less Exempt Compounds in Grams per Liter)		
INDOOR CARPET ADHESIVES	50	
CARPET PAD ADHESIVES	50	
OUTDOOR CARPET ADHESIVES	150	
WOOD FLOORING ADHESIVES	100	
RUBBER FLOOR ADHESIVES	60	
SUBFLOOR ADHESIVES	50	
CERAMIC TILE ADHESIVES	65	
VCT & ASPHALT TILE ADHESIVES	50	
DRYWALL & PANEL ADHESIVES	50	
COVE BASE ADHESIVES	50	
MULTIPURPOSE CONSTRUCTION ADHESIVE	70	
STRUCTURAL GLAZING ADHESIVES	100	
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250	
OTHER ADHESIVES NOT LISTED	50	
SPECIALTY APPLICATIONS		
PVC WELDING	510	
CPVC WELDING	490	
ABS WELDING	325	
PLASTIC CEMENT WELDING	250	
ADHESIVE PRIMER FOR PLASTIC	550	
CONTACT ADHESIVE	80	
SPECIAL PURPOSE CONTACT ADHESIVE	250	
STRUCTURAL WOOD MEMBER ADHESIVE	140	
TOP & TRIM ADHESIVE	250	
SUBSTRATE SPECIFIC APPLICATIONS		
METAL TO METAL	30	
PLASTIC FOAMS	50	
POROUS MATERIAL (EXCEPT WOOD)	50	
WOOD	30	
FIBERGLASS	80	

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

(Less Water and Less Exempt Compounds in Grams per Liter)		
SEALANTS	VOC LIMIT	
ARCHITECTURAL	250	
MARINE DECK	760	
NONMEMBRANE ROOF	300	
ROADWAY	250	
SINGLE-PLY ROOF MEMBRANE	450	
OTHER	420	
SEALANT PRIMERS		
ARCHITECTURAL		
NON-POROUS	250	
POROUS	775	
MODIFIED BITUMINOUS	500	
MARINE DECK	760	
OTHER	750	

TABLE 4.504.3 - VOC CONTENT LIMITS FOR

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT

ARCHITECTURAL COATINGS2,3

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS GRAPHIC ARTS COATINGS (SIGN PAINTS)	250
· · · ·	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS ₁	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS

ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS ₁		
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION		
PRODUCT	CURRENT LIMIT	
HARDWOOD PLYWOOD VENEER CORE	0.05	
HARDWOOD PLYWOOD COMPOSITE CORE	0.05	
PARTICLE BOARD	0.09	
MEDIUM DENSITY FIBERBOARD	0.11	
THIN MEDIUM DENSITY FIBERBOARD2	0.13	

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued) 4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California

Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

(Emission testing method for California Specification 01350)

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1 4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the

Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,"

See California Department of Public Health's website for certification programs and testing labs.

hhtps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

Version 1.2, January 2017 (Emission testing method for California Specification 01350)

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.

- 2. Chain of custody certifications.
- 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
- 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA
- 0121, CSA 0151, CSA 0153 and CSA 0325 standards. Other methods acceptable to the enforcing agency

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the California Building Standards Code.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the

- 1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute,
- 2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

- 1. Moisture content shall be determined with either a probe-type or contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements
- 2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end
- 3. At least three random moisture readings shall be performed on wall and floor framing with documentation

acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST **4.506.1 Bathroom exhaust fans.** Each bathroom shall be mechanically ventilated and shall comply with the

- 1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a
 - a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of
 - b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

- 1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or
- 2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

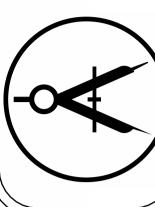
- 1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods. 2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems),
- ASHRAE handbooks or other equivalent design software or methods. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential

Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are

NOT APPLICABLE RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER

sig



other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.

1. Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building

INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or

Examples of acceptable HVAC training and certification programs include but are not limited to the following:

certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems.

performance contractors, and home energy auditors. Successful completion of a third party apprentice training program in the appropriate trade.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the

responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or

CHAPTER 7

702 QUALIFICATIONS

State certified apprenticeship programs.

Programs sponsored by manufacturing organizations.

5. Other programs acceptable to the enforcing agency.

4. Other programs acceptable to the enforcing agency.

Public utility training programs.

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

OWNER'S NAME: OWNER'S ADRESS:

DATE: 08.19.2024

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED ON AN INDIVIDUAL NEEDS. THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

NOTES:

SCALE:

DATE: 08.19.2024

SFD ENERGY CORRECTION NOTES:

10. ADMINISTRATIVE REQUIREMENTS:

A) THE PERSON IN CHARGE OF THE CONSTRUCTION OR INSTALLATION, WHO IS ELIGIBLE UNDER DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE TO ACCEPT RESPONSIBILITY FOR THE CONSTRUCTION OR INSTALLATION OF REGULATED MANUFACTURED DEVICES SHALL POST, OR MAKE AVAILABLE WITH THE BUILDING PERMIT(S) ISSUED FOR 2022 LOW-RISE RESIDENTIAL ENERGY CORRECTION LIST.DOCX 3 THE BUILDING. THE CERTIFICATE OF INSTALLATION DOCUMENTATION FOR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OR PART 6. SUCH CERTIFICATE OF INSTALLATION DOCUMENTATION SHALL BE MADE AVAILABLE TO THE ENFORCEMENT AGENCY FOR ALL APPLICABLE INSPECTIONS. THESE CERTIFICATES SHALL:

I) IDENTIFY FEATURES, MATERIALS, COMPONENTS, MANUFACTURED DEVICES, AND SYSTEM DIAGNOSTIC RESULTS REQUIRED TO VERIFY COMPLIANCE WITH THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6.

II) STATE THE NUMBER OF THE BUILDING PERMIT UNDER WHICH THE CONSTRUCTION OR INSTALLATION WAS PERFORMED. SECTIONS OF THE CERTIFICATE(S), FOR WHICH SUBMITTAL TO A HERS PROVIDER DATA REGISTRY IS REQUIRED, SHALL DISPLAY THE UNIQUE REGISTRATION NUMBER ASSIGNED BY THE HERS DATA REGISTRY. III) INCLUDE A DECLARATION STATEMENT INDICATING THAT THE CONSTRUCTED OR INSTALLED FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES CONFORM TO ALL APPLICABLE CODES AND REGULATIONS, AND TO THE REQUIREMENTS FOR SUCH DEVICES GIVEN IN THE PLANS AND SPECIFICATIONS APPROVED BY THE LOCAL

IV) BE SIGNED BY THE DOCUMENTATION AUTHOR TO CERTIFY THE DOCUMENTATION IS ACCURATE AND COMPLETE.

V) BE SIGNED BY THE INDIVIDUAL ELIGIBLE UNDER DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE TO ACCEPT RESPONSIBILITY FOR CONSTRUCTION, OR INSTALLATION IN THE APPLICABLE CLASSIFICATION FOR THE SCOPE OF WORK SPECIFIED ON THE CERTIFICATE OF INSTALLATION DOCUMENT(S), SEC. 10-103 (A) 3 A

VI) THE BUILDER SHALL PROVIDE THE BUILDING OWNER OR THE PERSON(S) RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE FEATURE, MATERIAL, COMPONENT OR MECHANICAL DEVICE INSTALLED (IN CASE OF MULTI- TENANT OR CENTRALLY OPERATED BUILDINGS) WITH THE FOLLOWING AT THE TIME OF OCCUPANCY: COMPLIANCE INFORMATION. THE APPROPRIATE COMPLETED AND SIGNED CERTIFICATE(S) OF COMPLIANCE, CERTIFICATE(S) OF INSTALLATION, AND IF APPLICABLE CERTIFICATE(S) OF

VERIFICATION DOCUMENTATION SUBMITTED. VII) OPERATING INFORMATION. THE APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, COMPONENTS, AND MECHANICAL DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO OPERATE THEM CORRECTLY AND

VIII) MAINTENANCE INFORMATION. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE OPERATION AND MAINTENANCE MANUAL IX) VENTILATION INFORMATION. A DESCRIPTION OF THE QUANTITY OF OUTDOOR AIR THAT THE VENTILATION SYSTEM IS DESIGNED TO PROVIDE TO THE BUILDING CONDITIONED

SPACE, AND INSTRUCTIONS FOR PROPER OPERATION AND MAINTENANCE. SEC. 10-103 (B) B) THE ENFORCEMENT AGENCY SHALL NOT ISSUE A CERTIFICATE OF OCCUPANCY UNTIL ALL REQUIRED CERTIFICATES OF VERIFICATION ARE POSTED AND MADE AVAILABLE TO THE BUILDING DEPARTMENT FOR ALL APPLICABLE INSPECTIONS, AND THAT ALL CERTIFICATES OF VERIFICATION CONFORM TO THE SPECIFICATIONS OF SECTION 10-103(A)5. SEC. 10-103 (D) 2

11. MANDATORY MEASURES: THE FOLLOWING CIRCLED ITEMS REPRESENT THE MANDATORY MEASURES FOR ALL BUILDINGS AND SHALL APPEAR AS NOTES ON THE PLANS. A) MANUFACTURED FENESTRATION PRODUCTS AND EXTERIOR DOORS SHALL:

1) HAVE A CLEARLY VISIBLE TEMPORARY LABEL MEETING THE REQUIREMENTS OF SEC. 10-111 (A) 1, NOT TO BE REMOVED BEFORE INSPECTION BY THE ENFORCEMENT AGENCY, LISTING THE CERTIFIED U-FACTOR, THE SOLAR HEAT GAINS COEFFICIENT (SHGC), AND VISIBLE TRANSMITTANCE (VT) CERTIFYING THAT THE AIR LEAKAGE REQUIREMENTS OF SEC. 110.6 (A) 1 ARE MET FOR EACH PRODUCT LINE; AND NFRC PROCEDURES. SEC. 110.6 (A)

B) FIELD-FABRICATED FENESTRATION AND FIELD-FABRICATED EXTERIOR DOORS SHALL BE CAULKED BETWEEN THE FENESTRATION PRODUCTS OR EXTERIOR DOOR AND THE BUILDING, AND SHALL BE WEATHER STRIPPED, EXCEPTION: UNFRAMED GLASS DOORS AND FIRE DOORS. SEC. 110.6 (B)

C) JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHER STRIPPED, OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION. SEC. 110.7 D) ALL INSULATING MATERIAL SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAMESPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF THE CBC. SEC. 110.8 (C) E) NO MECHANICAL EQUIPMENT NOR PLUMBING VENTS SHALL BE LOCATED WITHIN THE DESIGNATED "SOLAR ZONE" AREAS. SEC 110.10 (B) 1-B F) ANY ROOFING PRODUCT USED AS A COOL ROOF SHALL BE CERTIFIED AND LABELED IN

ACCORDANCE WITH THE REQUIREMENTS OF SEC. 10-113 BY THE COOL ROOF RATING COUNCIL (CRRC) AND MEET CONDITIONS SET IN SEC. 110.8 (I) G) NEW SPACE CONDITIONING EQUIPMENT SHALL MEET THE APPLICABLE EFFICIENCY REQUIREMENTS OF TABLES 110.2-(A-N). SEC. 110.2 (A) H) ALL UNITARY SYSTEMS NOT CONTROLLED BY EMCS SHALL HAVE SETBACK

THERMOSTATS; CAPABLE TO PROGRAM TEMPERATURE SETPOINTS FOR AT LEAST FOUR PERIODS WITHIN A 24 HR. PERIOD. SEC. 110.2 (C) I) HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATERS SHALL HAVE CONTROLS:

1) THAT PREVENT SUPPLEMENTARY HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE; AND

2) IN WHICH THE CUT-ON TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN CUT-ON TEMPERATURE FOR SUPPLEMENTARY HEATING, CUT-OFF TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUT-OFF TEMPERATURE FOR SUPPLEMENTAL HEATING, SEC. 110.2 (B)

J) INSULATION FOR WATER TANKS (STORAGE TANKS OR BACKUP STORAGE TANKS FOR SOLAR WATER HEATING) AND PIPING (SPACE-CONDITIONING SYSTEMS, SOLAR WATER-HEATING SYSTEM AND DISTRIBUTION HEATING SYSTEM) SHALL MEET THE REQUIREMENT OF SEC 12.3 (A). K) ALL INSTALLED LUMINAIRES SHALL MEET TABLE 150.0-A.

L) ALL FACTORY FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181. THIS INCLUDES ALL DUCTS, AND CLOSURE SYSTEMS SUCH AS COLLARS, CONNECTIONS AND SPLICES. LABELED, COMPLYING TO UL 181.

O) ALL DWELLING BUILDINGS SHALL MEET THE REQUIREMENTS OF ASHRAE STANDARD 62.2, VENTILATION AND ACCEPTABLE INDOOR AIR QUALITY IN RESIDENTIAL BUILDINGS Q) SERVICE WATER HEATING SYSTEMS AND EQUIPMENT SHALL MEET THE APPLICABLE REQUIREMENTS OF THE APPLIANCE EFFICIENCY REGULATIONS AS REQUIRED BY SEC. 110.1, SEC, 110.3 (B) R) SERVICE HOT WATER SYSTEMS WITH CIRCULATING PUMPS OR WITH ELECTRICAL HEAT

TRACE SYSTEMS SHALL BE CAPABLE OF AUTOMATICALLY TURNING OFF THE SYSTEM. G) IF QUALITY INSULATION INSTALLATION (QII) IS APPLIED, COMPLIANCE CREDIT CAN ONLY BÉ TAKEN FOR THE WHOLE BUILDING – ROOF/CEILINGS, WALLS, AND FLOORS, AND

REQUIRES FIELD VERIFICATION BY A HERS RATER. J) SPECIAL FEATURES: B. INDICATE ON THE PLANS THE INSTALLATION OF A COOL ROOF THAT HAS BEEN

CERTIFIED BY THE CRRC AND MEETS THE APPLICABLE VALUES FOR BOTH THERMAL EMITTANCE AND AGED SOLAR REFLECTANCE:

I. STEEP-SLOPED ROOFS (CLIMATE ZONE 4 AND 8 THROUGH 15) – MINIMUM THERMAL EMITTANCE OF 0.75 AND MINIMUM AGED SOLAR REFLECTANCE OF 0.20, OR A MINIMUM SRI OF 16. N) THE FURNACE (AND/OR A/C IF PROVIDED) CAPACITY IN BTU/H. THE MANUFACTURER 'S NAME.

MODEL NUMBER, AND THE AFUE (AND/OR SEER) SHALL BE SHOWN ON THE PLANS TO MATCH CALCULATIONS AND IN COMPLIANCE WITH SECTIONS 110.2 AND 110.5. LOCATION OF EQUIPMENT MUST ALSO BE SHOWN ON THE PLANS. O) PROVIDE HEATING AND COOLING LOAD CALCULATIONS TO JUSTIFY EQUIPMENT CHOSEN. Q) WATER HEATER:

A. MANUFACTURER'S NAME, MODEL NUMBER, AND SIZE SHALL BE SHOWN ON THE PLANS. WATER HEATER(S) LOCATION SHALL ALSO BE INDICATED ON THE PLANS. B. PROVIDE MANUFACTURER'S DATA SHEETS TO JUSTIFY THE ENERGY FACTOR (E.F.) OR RECOVERY EFFICIENCY (R.E) AND STANDBY LOSS (SB.L.) FOR LARGE STORAGE GAS WATER HEATER(S) SPECIFIED IN CALCULATIONS.

VHFHSZ NOTES:

ROOFING

1. ROOF GUTTERS SHALL BE DESIGN TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS. (705A.4;R337.5.4)

VHFHSZ REQUIREMENTS

2. DETAIL THE SPACE BETWEEN THE ROOF COVERING AND ROOF DECKING WHERE THE ROOF PROFILE ALLOWS A SPACE; THE SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBERS, BE FIRESTOPPED WITH APPROVED MATERIALS, OR PROVIDE ONE LAYER OF 72 POUND MINERAL-SURFACED NON-PERFORATED CAP SHEET MEETING ASTM D3909. (705A.2;R337.5.2)

3. WOOD-SHINGLE AND WOOD-SHAKE ROOFS ARE PROHIBITED REGARDLESS OF CLASSIFICATION. (705A.2;R337.5.2)

4. VALLEY FLASHINGS SHALL BE NOT LESS THAN 0.019-INCH (NO.26 GALVANIZED SHEET GAGE) CORROSION-RESISTANT METAL INSTALLED OVER A 36-IN. WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF 72 POUND MINERAL-SURFACED NON-PERFORATED CAP SHEET MEETING ASTM D3909 RUNNING THE FULL LENGTH OF THE VALLEY. (705A.3;R337.5.3)

6. VENT OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES, AND UNDERFLOOR VENTS SHALL RESIST BUILDING IGNITION FROM THE INTRUSION OF BURNING EMBERS AND FLAME THROUGH THE VENT OPENINGS. VENT

OPENINGS SHALL COMPLY WITH ONE OF THE FOLLOWING: A. LISTED VENT COMPLYING WITH ASTM E2886 OR

B. PROTECTED BY CORROSION RESISTANT, NONCOMBUSTIBLE WIRE MESH WITH MIN. 1/16" AND MAX. 1/8" OPENINGS. (706A.2;R337.6.2)

7. VENTS SHALL NOT BE INSTALLED ON UNDERSIDE OF EAVES AND CORNICES UNLESS ONE OF THE CONDITIONS SET FORTH IN SECTION 706A.3 OR R337.6.3 ARE MET. (706A.3;R337.6.3)

EXTERIOR WALLS

8. EXTERIOR WALL COVERING OR WALL ASSEMBLY SHALL COMPLY BY MEETING ONE OF THE FOLLOWING:

- A. NONCOMBUSTIBLE CONSTRUCTION OR B. IGNITION RESISTANT MATERIAL OR
- C. HEAVY TIMBER CONSTRUCTION OR
- D. LOG WALL CONSTRUCTION OR
- E. COMPLIES WITH SFM 12-7A-1 (707A.3;R337.7.3)

OPEN ROOF EAVES

9. EXPOSED ROOF DECK ON THE UNDERSIDE OF UNENCLOSED ROOF EAVES SHALL CONSIST OF ONE OF THE FOLLOWING:

A. NONCOMBUSTIBLE MATERIAL **B. IGNITION-RESISTANT MATERIAL**

C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE EXTERIOR OF ROOF DECK

D. EXTERIOR PORTION OF A 1-HR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF ROOF DECK DESIGNED FOR EXTERIOR FIRE EXPOSURE PER GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL. (707A.4;R337.7.4)

ENCLOSED ROOF EAVES AND ROOF EAVE SOFFITS

10. EXPOSED UNDERSIDE SHALL BE PROTECTED BY ONE OF THE FOLLOWING: A. NONCOMBUSTIBLE MATERIA

B. IGNITION-RESISTANT MATERIAL C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE

UNDERSIDE OF THE RAFTER TAILS OR SOFFIT D. EXTERIOR PORTION OF A 1-HR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF RAFTER TAILS OR SOFFIT PER GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL

E. BOXED-IN ROOF EAVE SOFFIT ASSEMBLIES COMPLYING WITH SFM 12-7A-3 OR ASTM E2957. (707A.5;R337.7.5)

EXTERIOR PORCH CEILINGS

11. EXPOSED UNDERSIDE SHALL BE PROTECTED BY ONE OF THE FOLLOWING: A. NONCOMBUSTIBLE MATERIAL

B. IGNITION-RESISTANT MATERIAL

C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE CEILING D. EXTERIOR PORTION OF A 1-HR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED

TO THE UNDERSIDE OF THE CEILING ASSEMBLY PER GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL E. PORCH CEILING ASSEMBLIES WITH A HORIZONTAL UNDERSIDE COMPLYING WITH

SFM 12-7A-3 OR ASTM E2957. (707A.6;R337.7.6)

FLOOR PROJECTIONS / UNDERFLOOR PROTECTION / UNDERSIDE OF APPENDAGES

12. EXPOSED UNDERSIDE SHALL BE PROTECTED BY ONE OF THE FOLLOWING: A. NONCOMBUSTIBLE MATERIAL **B. IGNITION-RESISTANT MATERIAL**

C. ONE LAYER OF 5/8" TYPE X APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE FLOOR PROJECTION D. EXTERIOR PORTION OF A 1-HR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE FLOOR ASSEMBLY PER GYPSUM ASSOCIATION FIRE

RESISTANCE DESIGN MANUAL E. UNDERSIDE OF A FLOOR ASSEMBLY COMPLYING WITH SFM 12-7A-3 OR ASTM E2957 F. HEAVY TIMBER STRUCTURAL COLUMNS AND BEAMS IS ALLOWED FOR UNDERFLOOR PROTECTION AND UNDERSIDE APPENDAGES ONLY. (707A.7-9;R337.7.7-9)

EXTERIOR WINDOWS AND DOORS

13. EXTERIOR GLAZING SHALL BE MULTI-PANE UNITS WITH A MINIMUM OF ONE TEMPERED PANE, OR GLASS BLOCK UNITS, OR MINIMUM 20-MIN. RATED, OR COMPLIES WITH SFM 12-7A-2 (708A.2.1;R337.8.2.1)

14. EXTERIOR DOORS SHALL MEET ONE OF THE FOLLOWING:

A. NONCOMBUSTIBLE MATERIAL OR B. IGNITION-RESISTANT MATERIAL OR

C. SOLID CORE WOOD HAVING STILES AND RAILS NOT LESS THAN 1-3/8-IN. THICK WITH INTERIOR PANEL THICKNESS NOT LESS THAN 1-1/4-IN. THICK. OR D. MINIMUM 20-MIN. RATED OR

E. COMPLIES WITH SFM 12-7A-1 (708A.3;R337.8.3)

DECKING

15. WALKING SURFACE MATERIAL OF DECKS, PORCHES, BALCONIES AND STAIRS SHALL BE CONSTRUCTED WITH ONE OF THE FOLLOWING

MATERIALS WHEN ANY PORTION OF SUCH SURFACE IS WITHIN 10 FEET OF THE BUILDING: A. IGNITION-RESISTANT MATERIAL THAT COMPLIES WITH SFM 12-7A-4 AND 12-7A-5 B. EXTERIOR FIRE RETARDANT TREATED WOOD

C. NONCOMBUSTIBLE MATERIAL D. COMPLIES WITH SFM 12-7A-4A WHEN ATTACHED EXTERIOR WALL COVERING IS ALSO EITHER NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL. (709A.3;R337.9.3)

DRYER. VENT HORIZONTAL TO OUTSIDE W/ BACKDRAFT DAMPER. **ROOF ABOVE**

BASEMENT BELOW 5/8" TYPE "X" GYP. BD. IN THE GARAGE AND UNDER STAIRS AT ENCLOSED USABLE SPACE W/ 6d COOLER NAILS @7" O.C.

9. ULTRA-LOW CONSUMPTION WATER CLOSET (1.28 GAL/FLUSH).

10. PROVIDE COPPER WATER LINE FOR ICE MAKER 11. PROVIDE WATER AND WASTE FOR WASHER (RECESSED BOX AT INTERIOR LOCATIONS)

12. ELECTRICAL SERVICE PANEL

13. SHOWER DRAIN IN FLOOR BELOW WASHER, CONN. TO 1 1/2" - DIA ABS PIPE W/ 1/4" PER FOOT SLOPED TO EXT

14. 30" WIDE COOK TOP. BUILT-IN HOOD WITH LIGHT AND VENT TO OUTSIDE AIR.

15. STAIRS: . STAIRS SHALL HAVE MIN. 7.75" RISE & MIN. 10" RUN

MIN. 6'-8" HEADROOM CLEARANCE. MIN. 30" CLEAR WIDTH

HANDRAILS 34" TO 38" HIGH ABOVE TREAD NOSING HANDGRIPS PORTION OF HANDRAIL SHALL NOT BE LESS THAN 1.25" AND NO MORE THAN 2" CROSS-SECTIONAL DIMENSION HAVING A SMOOTH SURFACE WITH NO SHARP CORNERS

MAX. 4" CLEAR SPADING OPENING BETWEEN RAILS 16. GLAZING IN HAZARDOUS LOCATIONS SHALL BE TEMPERED. (2406.4)

A. PANELS IN SLIDING OR SWINGING DOORS.

B. DOORS AND ENCLOSURE FOR HOT TUB, BATHTUB, SHOWERS (ALSO GLAZING IN WALL ENCLOSING THESE COMPARTMENTS WITHIN 5 FT. OF STANDING SURFACE.

C. GLAZING IN FIXED OR OPERABLE PANELS TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.

17. PROVIDE SLIDING FLY SCREEN AT OPENABLE PORTIONS OF SLIDING DOORS. PROVIDE STATIONARY FLY SCREENS AT OPENABLE PORTIONS OF WINDOWS

18. EACH WATER CLOSET STOOL SHOULD BE LOCATED IN A CLEAR SPACE NOTE LESS THAN 30" IN WIDTH AND HAVE A MINIMUM CLEAR SPACE IN FRONT OF NOT LESS THAN 24" MAXIMUM 1.6 GALLONS/FLUSH FOR ALL TEH WATER CLOSETS. 19. PROVIDE ONLY VENTLESS ON-DEMAND WATER HEATERS.

20. FIRE BLOCKING MUST BE PROVIDED IN ACCORDANCE WITH SECTION 717 IN THE FOLLOWING LOCATIONS:

A. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS. B. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT 10 FOOT INTERVALS ALONG THE LENGTH OF

C. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVERED CEILINGS. D. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND IN LINE

WITH THE RUN OF STAIRS IF THE WALL UNDER THE STAIRS IS UNFINISHED. IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS. WITH NONCOMBUSTIBLE MATERIALS, SUCH CLEARANCE SHALL BE MEASURED VERTICALLY FROM A PLANE

PARALLEL AND TANGENT TO THE STAIRWAY TREAD NOSING TO THE SOFFIT ABOVE ALL POINTS. 21. PROVIDE 6" INCH CLEARANCES ON THE SIDES, BACK, FRONT AND CEILING OF THE FURNACE.

22. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND /OR ADDITIONAL EXPENSES.

23. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING. PER ORDINANCE

170,158 INCLUDES COMMERCIAL ADDITIONS AND TI WORK OVER \$10,000. SEPARATE PLUMBING PERMIT IS REQUIRED 24. PROVIDE ULTRA-LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTIONS. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED

25. PROVIDE 72" HIGH NON-ABSORBENT WALL ADJACENT TO SHOWER AND APPROVED SHATTER-RESISTANT MATERIALS FOR SHOWER ENCLOSURE. (1210.2.3, 2406.4.5, R307.2, R308.4)

26. WATER HEATER MUST BE STRAPPED TO WALL 27. UNDER FLOOR VENTILATION OPENINGS IN THE UNDER FLOOR AREA SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

. $\,$ THE TOP OF THE OPENING SHALL BE LOCATED NOT MORE THAN 12 INCHES BELOW THE BOTTOM OF THE FLOOR JOIST B. THE OPENINGS SHALL BE DISTRIBUTED APPROXIMATELY EQUALLY AND LOCATED TO PROVIDE CROSS VENTILATION, FOR EXAMPLE, BE LOCATING THE OPENING ALONG THE LENGTH OF AT LEAST TWO OPPOSITE SIDES OF THE BUILDING.

C. THE OPENINGS SHALL BE THE LARGER OF: 1.5 SQUARE FEET FOR EACH 25 LINEAR FEET OR FRACTION OF EXTERIOR WALL, OR OPENINGS SHALL BE EQUAL TO 1% OF UNDER FLOOR AREA. THE OPENINGS MAY BE COVERED WITH CORROSION RESISTANT WIRE MESH WITH MESH 28. OPENINGS OF GREATER THAN 1.4 INCH AND LESS THAN 1.2 INCH IN DIMENSION, BUILDINGS WITH NATURAL VENTILATION ARE EXEMPTED FROM THE CONSTRUCTION REQUIREMENTS OF TABLE 71 PROVIDED THEY COMPLY WITH THE FOLLOWING:

A. THE UNOBSTRUCTED OPENINGS SHALL EXCHANGE OUTSIDE AIR. B. THE SIZE OF THE UNOBSTRUCTED OPENINGS SHALL BE THE LARGER OF: 25% OF THE TOTAL PERIMETER WALL AREA OF THE LOWEST

LEVEL OF THE BUILDING, OR AT LEAST 25% OF THE FLOOR AREA OF THE LOWEST OF THE BUILDING. C. THE UNOBSTRUCTED OPENINGS SHALL BE EVENLY DISTRIBUTED AND LOCATED WITHIN THE UPPER PORTION OF AT LEAST TWO OPPOSITE EXTERIOR WALLS OF THE LOWEST LEVEL OF THE BUILDING. THEY ARE PROVIDED WITH TRENCH DAMS AND CABLE OR CONDUIT

29. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM 30. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS, AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH

HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY. 31. THE PANEL 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 32. THE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE

EV CHARGING AS EV CAPABLE. THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENT AND VISIBLY MARKED EV CAPABLE. 33. THE ELECTRICAL SYSTEM SHALL HAVE SUFFICIENT CAPACITY TO SIMULTANEOUSLY CHARGE ALL DESIGNATED EV SPACES AT THE FULL RATED AMPERAGE OF THE EVSE. PLAN DESIGN SHALL BEBASED UPON A 40-AMPERE MIN. BRANCH CIRCUIT. A SEPARATE ELECTRICAL PERMIT IS

REQUIRED. 34. THE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVERCURRENT PROTECTIVE DEVICE SPACE(S) RESERVED FOR FUTURE EV CHARGING PURPOSES AS EV CAPABLE IN ACCORDANCE WITH THE LOS ANGELES ELECTRICAL CODE.

35. THE FLOW RATES FOR ALL PLUMBING FIXTURES SHALL COMPLY WITH THE MAXIMUM FLOW RATES SPECIFIED IN SECTION 4.303.1

36. MULTI-FAMILY DWELLINGS NOT EXCEEDING THREE STORIES AND CONTAINING 50 UNITS OR LESS SHALL INSTALL A SEPARATE METER OR SUBMETER WITHIN COMMON AREAS AND WITHIN EACH INDIVIDUAL DWELLING UNIT.

37. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION, FORM GRN 12, SHALL BE COMPLETED PRIOR TO FINAL 38. LOCKS SHALL BE INSTALLED ON ALL PUBLICLY ACCESSIBLE EXTERIOR FAUCETS AND HOSE BIBS. (4.304.4) 39. B. FOR ONE- AND TWO-FAMILY DWELLINGS, ANY PERMANENTLY INSTALLED OUTDOOR IN-GROUND SWIMMING POOL OR SPA SHALL BE

EQUIPPED WITH A COVER HAVING A MANUAL OR POWER-OPERATED REEL SYSTEM. FOR IRREGULAR-SHAPED POOLS WHERE IT IS INFEASIBLE TO COVER 100 PERCENT OF THE POOL DUE TO ITS IRREGULAR SHAPE. A MINIMUM OF 80 PERCENT OF THE POOL SHALL BE COVERED. (4.304.5) 40. C. FOR SITES WITH OVER 500 SQUARE FEET OF LANDSCAPE AREA, WASTE PIPING SHALL BE ARRANGED TO PERMIT DISCHARGE FROM THE CLOTHES WASHER, BATHTUB, SHOWERS, AND BATHROOM/RESTROOMS WASH BASINS TO BE USED FOR A FUTURE GRAYWATER IRRIGATION

41. D. WATER USED IN THE BUILDING FOR WATER CLOSETS, URINALS, FLOOR DRAINS, AND PROCESS COOLING AND HEATING SHALL COME FROM CITY-RECYCLE WATER IF AVAILABLE FOR USE WITHIN 200 FEET OF THE PROPERTY LINE. (4.305.2)

42. E. BUILDING NOT EXCEEDING 25 STORIES SHALL HAVE COOLING TOWERS WITH MINIMUM OF 6 CYCLES OF CONCENTRATION (BLOWDOWN) OR HAVE A MINIMUM OF 50% OF MAKEUP WATER SUPPLY TO COOLING TOWERS COME FROM NON-POTABLE WATER SOURCES. (4.305.3.1)

43. F. BUILDING EXCEEDING 25 STORIES SHALL HAVE COOLING TOWERS WITH MINIMUM OF 6 CYCLES OF CONCENTRATION (BLOWDOWN) AND HAVE A MINIMUM OF 100% OF MAKEUP WATER SUPPLY TO COOLING TOWERS COME FROM NON-POTABLE WATER SOURCES. (4.305.3.2) 44. G. WHERE GROUNDWATER IS BEING EXTRACTED AND DISCHARGED, A SYSTEM FOR ONSITE REUSE OF THE GROUNDWATER SHALL BE

DEVELOPED AND CONSTRUCTED IF THE GROUNDWATER WILL NOT BE DISCHARGED TO THE SEWER. (4.305.4) 45. H. THE HOT WATER SYSTEM SHALL NOT ALLOW MORE THAN 0.6 GALLONS OF WATER TO BE DELIVERED TO ANY FIXTURE BEFORE HOT WATER

ARRIVES OR SHALL COMPLY WITH EITHER LOS ANGELES PLUMBING CODE SECTION 610.4.1.2 OR 610.4.1.3. 46. MATERIALS DELIVERED TO THE CONSTRUCTION SHALL BE PROTECTED FROM RAIN OR OTHER SOURCES OF MOISTURE.

47. WOOD BURNING FIREPLACES AND OTHER WOOD BURNING DEVICES ARE PROHIBITED. 48. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, OR SHEET METAL UNTIL

THE FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT. 49. ARCHITECTURAL PAINTS AND COATINGS, ADHESIVES, CAULKS AND SEALANTS SHALL COMPLY WITH THE VOLATILE ORGANIC COMPOUND

(VOC) LIMITS LISTED IN TABLES 4.504.1- 4.504.3. 50. THE VOC CONTENT VERIFICATION CHECKLIST, FORM GRN 2, SHALL BE COMPLETED AND VERIFIED PRIOR TO FINAL INSPECTION APPROVAL THE MANUFACTURER'S SPECIFICATIONS SHOWING VOC CONTENT FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB

SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION. (4.504.2.4) 51. ALL NEW CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE

FOLLOWING: I. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM

II. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH'S SPECIFICATION 01350

III. NSF/ANSI 140 AT THE GOLD LEVEL

IV. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE™ GOLD (4.504.3)

52. ALL NEW CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE GREEN LABEL PROGRAM. (4.504.3.1)

53. 80% OF THE TOTAL AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING: I. CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE CHPS HIGH PERFORMANCE PRODUCTS DATABASE

II. CERTIFIED UNDER UL GREENGUARD GOLD III. CERTIFIED UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM IV. MEET THE CALIFORNIA DEPARTMENT OF

PUBLIC HEALTH'S SPECIFICATION 01350 (4.504.4) 54. NEW HARDWOOD PLYWOOD, PARTICLE BOARD, AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED IN THE INTERIOR OR

EXTERIOR OF THE BUILDING SHALL MEET THE FORMALDEHYDE LIMITS LISTED IN TABLE 4.504.5. (4.504.5) 55. THE FORMALDEHYDE EMISSIONS VERIFICATION CHECKLIST, FORM GRN 3, SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL. THE MANUFACTURER'S SPECIFICATIONS SHOWING FORMALDEHYDE CONTENT FOR ALL APPLICABLE WOOD PRODUCTS SHALL BE READILY

AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION. 56. NEW MECHANICALLY VENTILATED BUILDINGS WITHIN 1,000 FEET OF A FREEWAY SHALL PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH A MERV 13 FILTER FOR OUTSIDE AND RETURN AIR. FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE

SOLAR ZONE NOTE:

THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE SOLAR ELECTRIC INSTALLATION. THE RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE (LOAD) END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION AND SHALL BE PERMANENTLY MARKED AS "FOR FUTURE SOLAR ELECTRIC". (4.211.4, ENERGY CODE §110.10, LAFD REQUIREMENT NO.96)

SITE PLAN / BUILDING SITING NOTES:

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))

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))

THE AREA OF EXTERIOR WALL OPENINGS OF NON-SPRINKLERED DWELLINGS AND ACCESSORY BUILDINGS LOCATED ≥ 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 ≥ 5-FT FOR NON-SPRINKLERED BUILDINGS AND ≥ 3-FT. FOR SPRINKLERED BUILDINGS. (T-R302.1(1) & (2))

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 ≥ 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))

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)

DESIGN REQUIREMENTS NOTES:

1. 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) 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.

A. WATER CLOSET REINFORCEMENT SHALL BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE, OR ON ONE SIDE WALL AND THE BACK WALL B. WHERE THERE IS NO BATHROOM AT THE ENTRY LEVEL, THE REINFORCEMENT FOR GRAB

BARS MAY BE INSTALLED ON THE SECOND OR THIRD FLOOR. 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]

4. 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]

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, ICRC R327,1,41

SMOKE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72.

7. CARBON MONOXIDE ALARM SHALL BE INTERCONNECTED HARD-WIRED WITH BATTERY BACKUP. FLOOD PLAIN NOTES:

1. (1)FILL IS REQUIRED TO BE STABLE UNDER CONDITIONS OF FLOODING, INCLUDING RAPID RISE AND RAPID DRAWDOWN, PROLONGED INUNDATION, AND EROSION AND SCOUR. FILL SIDE SLOPES MUST BE NO STEEPER THAN 1:1.5.

(2)FLOOD RESISTANT MATERIALS SHALL BE USED FOR FLOORING, INTERIOR AND EXTERIOR WALLS AND WALL COVERINGS BELOW THE ELEVATION REQUIRED PER CRC R322.2 OR 322.3.

(3)METAL CONNECTORS AND FASTENERS EXPOSED TO SALT WATER, SALT SPRAY OR OTHER CORROSIVE AGENTS MUST BE STAINLESS STEEL OR EQUIVALENT CORROSION RESISTANT MATERIAL, OR HOT-DIPPED

GALVANIZED AFTER FABRICATION (4)WHERE PRESERVATIVE TREATED WOOD IS REQUIRED, TREATMENT MUST BE IN ACCORDANCE WITH AWPA REQUIREMENTS.

(5)WALLS DESIGNED TO BREAK AWAY MUST NOT PRODUCE DEBRIS THAT IS CAPABLE OF DAMAGING STRUCTURES.

(6)PRIOR TO FINAL APPROVAL/CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL SUBMIT AN ELEVATION AN CERTIFICATE PREPARED BY S LICENSED SURVEYOR OR REGISTERED CIVIL ENGINEER. CERTIFYING THE ELEVATION OF THE LOWEST FLOOR ELEVATIONS OF THE STRUCTURE

(7) IDENTIFY THE FLOODPLAIN ELEVATION PER CRC R322.1.4. (8)FLOOD OPENINGS IN WALLS OF ENCLOSURES BELOW ELEVATED BUILDINGS, TO ALLOW FOR THE AUTOMATIC ENTRY AND EXIT OF FLOODWATER SHALL BE PROVIDED IN ONE OF THE FOLLOWING WAYS: A. NON-ENGINEERED: A MINIMUM OF (2) OPENINGS ON DIFFERENT SIDES HAVING A TOTAL NET AREA OF NOT

LESS THAN 1 SQ. IN. PER SQ. FT. OF ENCLOSED AREA SUBJECT TO FLOODING. . ENGINEERED: THE PERFORMANCE OF ENGINEERED OPENINGS MUST ACCOUNT FOR THE PRESENCE OF LOUVERS, BLADES, SCREENS, GRILLES, FACEPLATES OR OTHER COVERS AND DEVICES AND MUST ENSURE THAT THE DIFFERENCE BETWEEN THE EXTERIOR AND INTERIOR FLOODWATER LEVELS DO NOT EXCEED 1

C. INSTALLATION (WHETHER ENGINEERED OR NON-ENGINEERED) OF ALL FLOOD OPENINGS MUST BE IN AT LEAST 2 WALLS AND MUST BE NO MORE THAN 1 FOOT ABOVE THE HIGHER OF THE INTERIOR GRADE OR FLOOR AND THE FINISHED EXTERIOR GRADE IMMEDIATELY UNDER EACH OPENING.

ALL BREAKAWAY WALLS IN ALL FLOOD HAZARD AREAS MUST HAVE FLOOD OPENINGS. 10. UTILITIES AND EQUIPMENT SHALL COMPLY WITH THE FOLLOWING: A. ATTENDANT UTILITIES AND EQUIPMENT MUST BE AT OR ABOVE SPECIFIED ELEVATIONS (BFE + 12 INCHES OR DFE, WHICHEVER IS HIGHER), OR MUST BE SPECIFICALLY DESIGNED, CONSTRUCTED, AND INSTALLED TO

PREVENT FLOODWATERS FROM ENTERING OR ACCUMULATING WITHIN COMPONENTS.

11. FUEL SUPPLY LINES MUST BE EQUIPPED WITH FLOAT OPERATED AUTOMATIC SHUT-OFF VALVES.

RESIDENTIAL 2023 GBSC NOTES:

MATERIAL CONSERVATION & RESOURCE EFFICIENCY

HOUSE VENTILATION SYSTEM. (4.506.1)

8. THE ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHODS. (4.406.1) 10. THE ATTACHED BUILDING OPERATIONS AND MAINTENANCE MANUAL MUST BE COMPLETED AND PROVIDED AT THE TIME OF FINAL INSPECTION AND PLACED IN THE BUILDING. (4.410.1)

ENVIRONMENTAL QUALITY

A. AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF WATER, DUST, AND DEBRIS WHICH MAY ENTER THE SYSTEM.

B. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19% MOISTURE CONTENT. INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES. (4.505.3) C. ALL MECHANICAL EXHAUST FANS IN ROOMS WITH A BATHTUB OR SHOWER SHALL COMPLY WITH THE

FOLLOWING: I. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. II. FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤50% TO A MAXIMUM OF 80% UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE

A. ADHESIVES, SEALANTS AND CAULKS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 4.504.2.1 AND COMPLY WITH THE VOC LIMITS IN TABLES 4.504.1 AND 4.504.2 AS APPLICABLE. (4.504.2.1) B. PAINTS AND COATINGS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 4.504.2.2 AND COMPLY WITH THE VOC LIMITS IN TABLE 4.504.3. (4.504.2.2)

D. ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING:

IV. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD (4.504.3)

C. AEROSOL PAINTS AND COATINGS SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN SECTION 4.504.2.3.

I. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM OR II. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARD METHOD FOR THE TESTING OF VOC EMISSIONS (SPEC 01350) OR III. NSF/ANSI 140 AT THE GOLD LEVEL OR

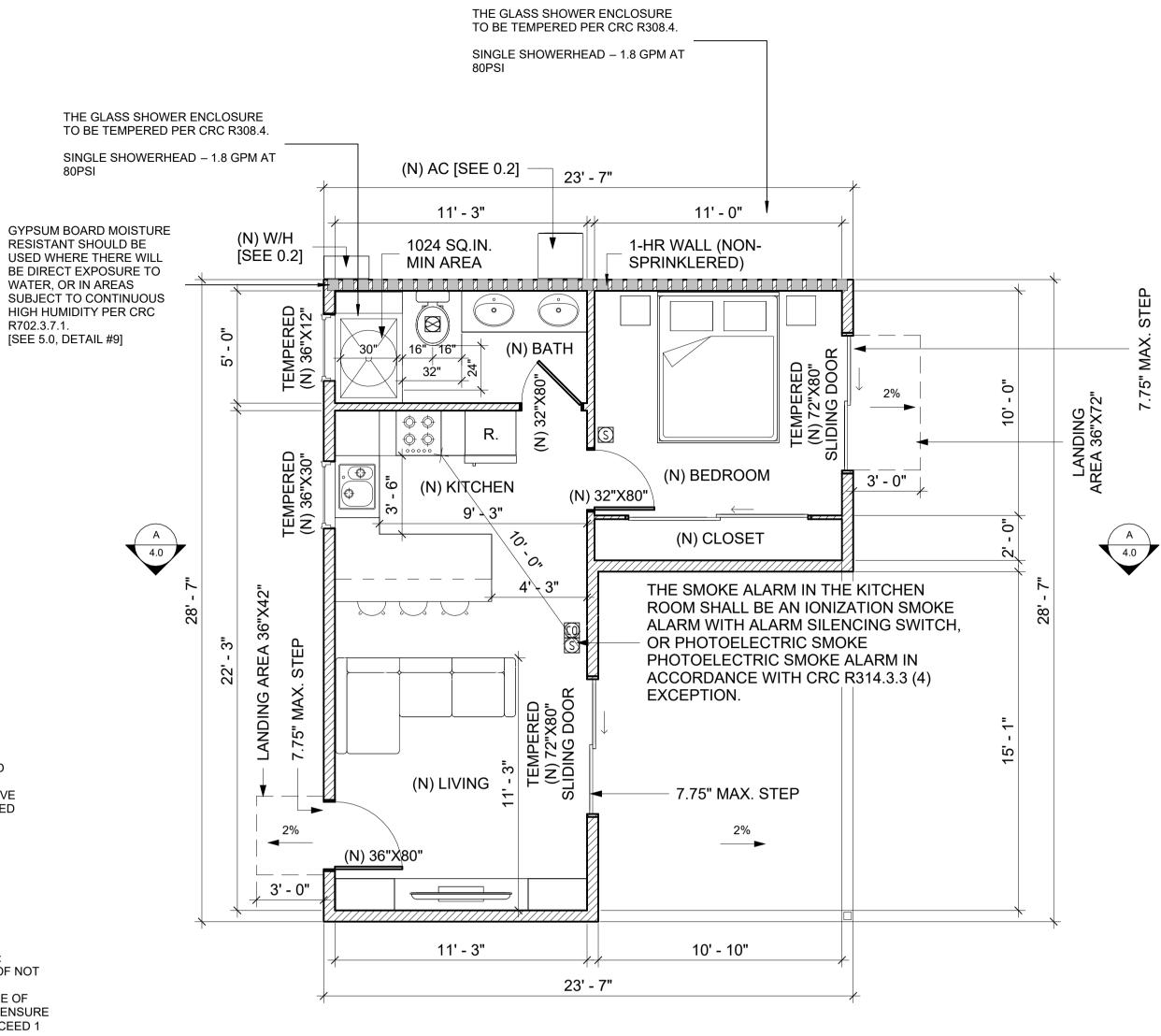
E. ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE GREEN LABEL PROGRAM. CARPET ADHESIVES SHALL NOT EXCEED A VOC LIMIT OF 50 G/L. (4.504.3.1, 4.504.3.2) F. A MINIMUM OF 80% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF

FOLLOWING: I. PRODUCTS CERTIFIED AS A LOW-EMITTING MATERIAL IN THE CHPS HIGH PERFORMANCE PRODUCTS DATABASE OR

II. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN &

SCHOOLS PROGRAM), OR III. CERTIFICATION UNDER THE RFCI FLOORSCORE PROGRAM OR IV. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARD METHOD FOR THE TESTING OF VOC EMISSIONS (SPEC 01350) (4.504.4)

G. COMPOSITE WOOD PRODUCTS (HARDWOOD PLYWOOD, PARTICLE BOARD, AND MDF) INSTALLED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET OR EXCEED THE STANDARDS OUTLINED IN TABLE 4.504.5. VERIFICATION OF COMPLIANCE WITH THESE SECTIONS MUST BE PROVIDED AT THE TIME OF INSPECTION. (4.504.5)





GRAB BAR NOTES:

R327.1.1REINFORCEMENT FOR GRAB BARS.

AT LEAST ONE BATHROOM ON THE ENTRY LEVEL SHALL BE PROVIDED WITH REINFORCEMENT INSTALLED IN ACCORDANCE WITH THIS SECTION. WHERE THERE IS NO BATHROOM ON THE ENTRY LEVEL, AT LEAST ONE BATHROOM ON THE SECOND OR THIRD FLOOR OF THE DWELLING SHALL COMPLY WITH THIS SECTION.

1.REINFORCEMENT SHALL BE SOLID LUMBER OR OTHER CONSTRUCTION MATERIALS APPROVED BY THE ENFORCING AGENCY.

2.REINFORCEMENT SHALL NOT BE LESS THAN 2 BY 8 INCH (51 MM BY 203 MM) NOMINAL LUMBER. [11/2 INCH BY 71/4 INCH (38 MM BY 184 MM) ACTUAL DIMENSION] OR OTHER CONSTRUCTION MATERIAL PROVIDING EQUAL HEIGHT AND LOAD CAPACITY. REINFORCEMENT SHALL BE LOCATED BETWEEN 32 INCHES (812.8 MM) AND 391/4 INCHES (997 MM) ABOVE THE FINISHED FLOOR FLUSH WITH THE WALL FRAMING.

3.WATER CLOSET REINFORCEMENT SHALL BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE, OR ONE SIDE WALL AND THE BACK WALL

4.SHOWER REINFORCEMENT SHALL BE CONTINUOUS WHERE WALL FRAMING IS PROVIDED.

5.BATHTUB AND COMBINATION BATHTUB/SHOWER REINFORCEMENT SHALL BE CONTINUOUS ON EACH END OF THE BATHTUB AND THE BACK WALL. ADDITIONALLY, BACK WALL REINFORCEMENT FOR A LOWER GRAB BAR SHALL BE PROVIDED WITH THE BOTTOM EDGE LOCATED NO MORE THAN 6 INCHES (152.4 MM) ABOVE THE BATHTUB RIM.

1.WHERE THE WATER CLOSET IS NOT PLACED ADJACENT TO A SIDE WALL CAPABLE OF ACCOMMODATING A GRAB BAR, THE BATHROOM SHALL HAVE PROVISIONS FOR INSTALLATION OF FLOOR-MOUNTED, FOLDAWAY OR SIMILAR ALTERNATE GRAB BAR REINFORCEMENTS APPROVED BY THE ENFORCING AGENCY.

WHEN FACTORY-INSTALLED REINFORCEMENT FOR GRAB BARS IS PROVIDED. 3.SHOWER ENCLOSURES THAT DO NOT PERMIT INSTALLATION OF REINFORCEMENT AND/OR GRAB BARS SHALL BE PERMITTED, PROVIDED REINFORCEMENT FOR INSTALLATION OF FLOOR-

2.REINFORCEMENT SHALL NOT BE REQUIRED IN WALL FRAMING FOR PRE-FABRICATED SHOWER ENCLOSURES AND BATHTUB WALL PANELS WITH INTEGRAL FACTORY- INSTALLED GRAB BARS OR

MOUNTED GRAB BARS OR AN ALTERNATE METHOD IS APPROVED BY THE ENFORCING AGENCY. 4.BATHTUBS WITH NO SURROUNDING WALLS, OR WHERE WALL PANELS DO NOT PERMIT THE INSTALLATION OF REINFORCEMENT SHALL BE PERMITTED, PROVIDED REINFORCEMENT FOR INSTALLATION OF FLOOR-MOUNTED GRAB BARS ADJACENT TO THE BATHTUB OR AN ALTERNATE METHOD IS APPROVED BY THE ENFORCING AGENCY.

5.REINFORCEMENT OF FLOORS SHALL NOT BE REQUIRED FOR BATHTUBS AND WATER CLOSETS INSTALLED ON CONCRETE SLAB FLOORS

LEGEND

NEW WALL 1-HR WALL (REQUIRED IF FIRE SEPARATION DISTANCE IS LESS THAN 5')

120v HARD-WIRED SMOKE DETECTOR WITH BATTERY BACK UP

CARBON MONOXIDE SENSOR

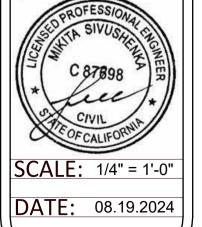
EXHAUST FAN 50 CFM VENTED TO OUTSIDE ENERGY STAR COMPLIANT W/HUMIDISTAT

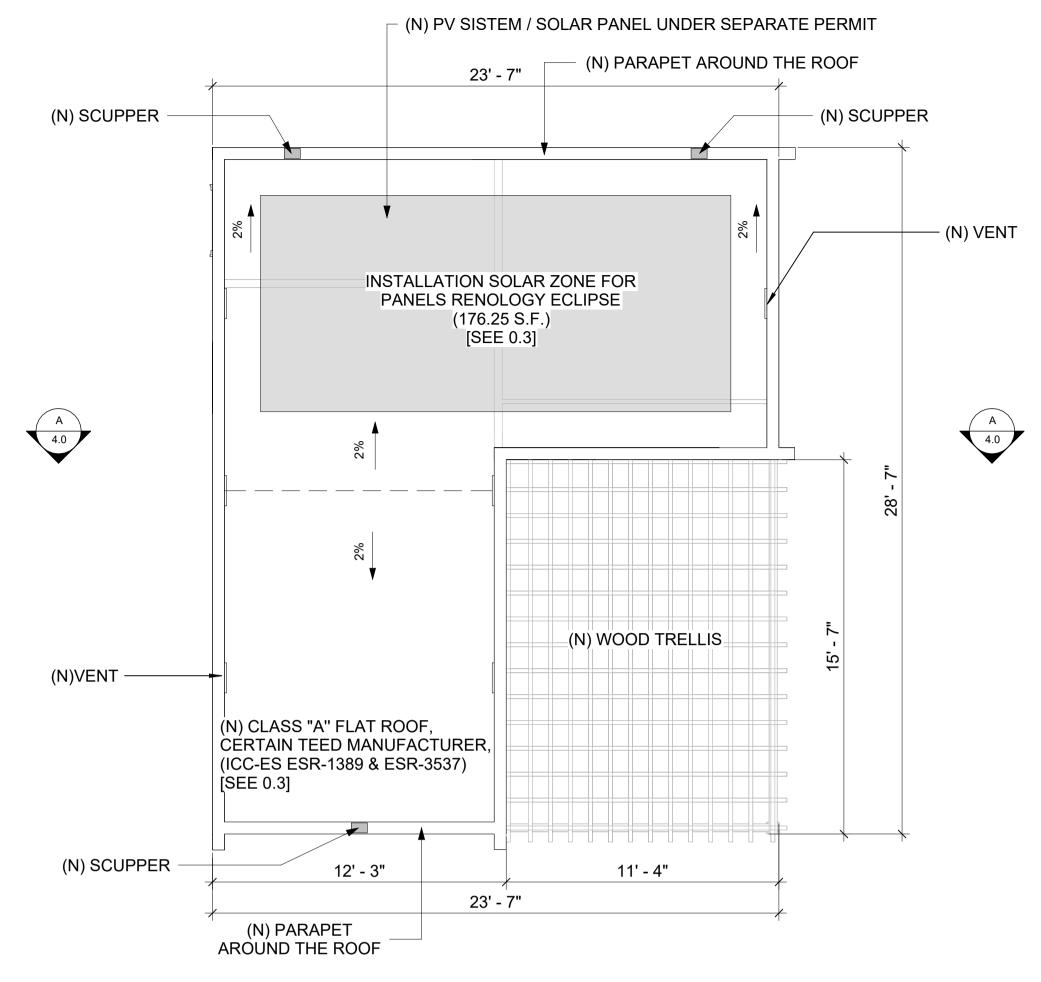
5 **k**0 $\bar{\Box}$

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OWNER'S NAME: OWNER'S ADRESS: **SCALE:** 1/4" = 1'-0 **DATE:** 08.19.2024

OWNER'S NAME:
OWNER'S ADRESS:





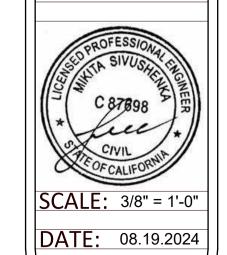


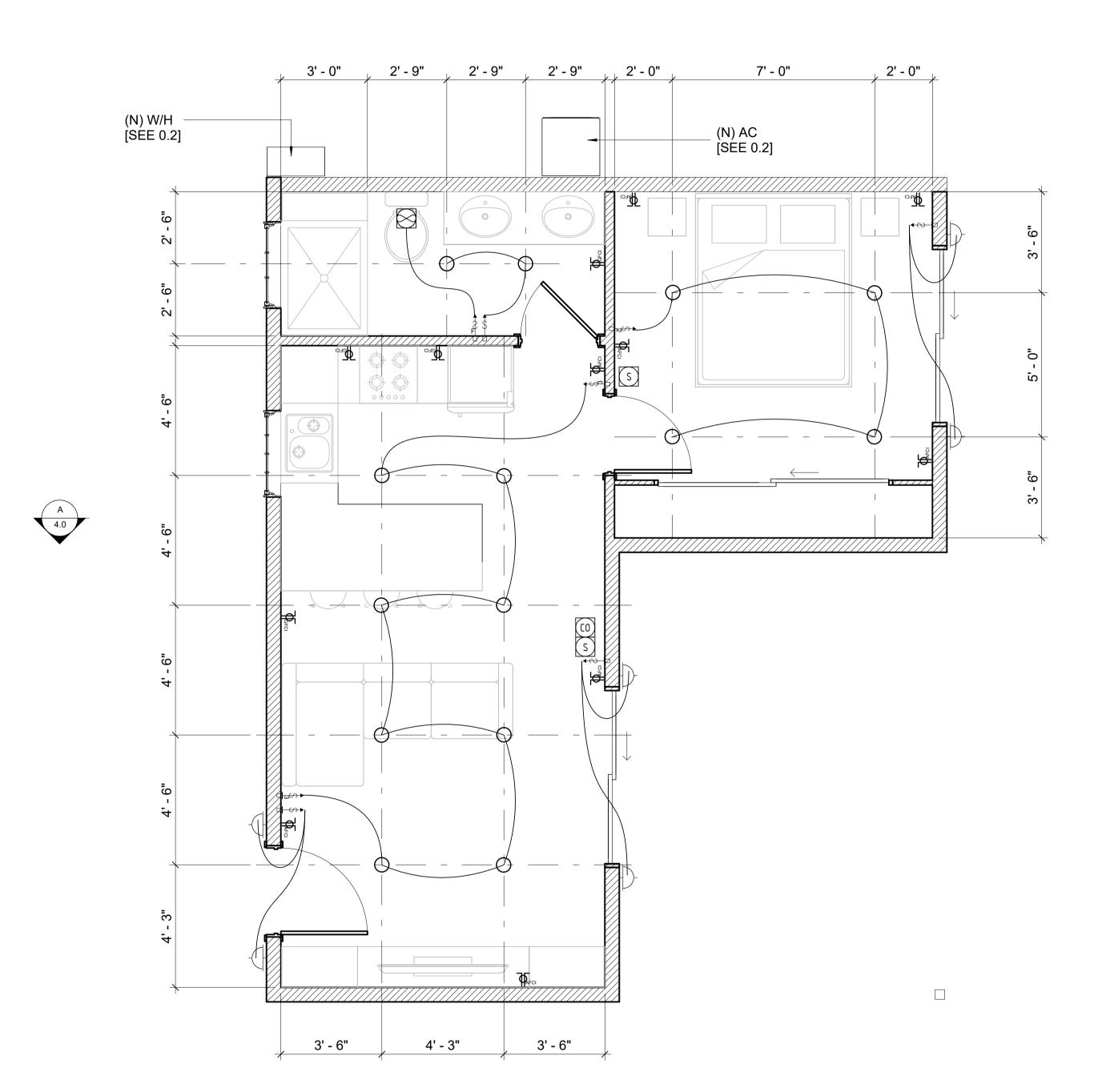
VENTILATION:

AREA OF THE ROOF TO BE VENTILATED: **445.9 S.F.**VENTILATION REQUIRED: 445.9/150.0=2.9 S.F.(417.6 SQ.IN.)
VENTILATION PROVIDED:
PROVIDED 6 BVSII (8"X15.375") WALL MOUNT RECTANGULAR VENT 6X73=438 SQ.IN.
COVERAGE AREA: **3.0 S.F. (438.0 SQ.IN.)**

VENTILATION NOTES:

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)







74K0Draft
(328)

(N) PARAPET

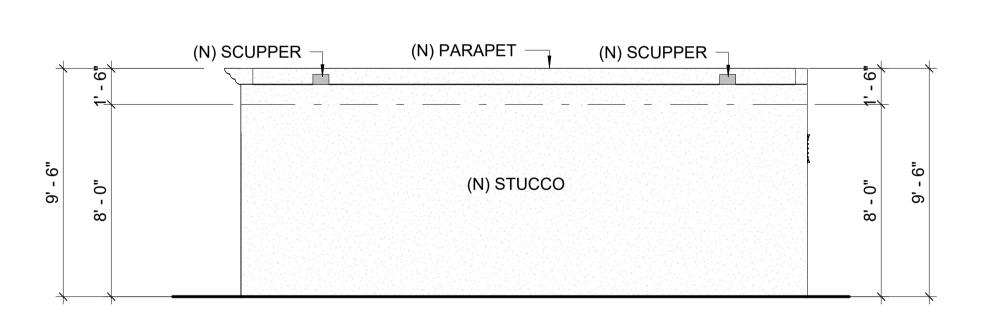
HDR

HDR

SILL

S

NORTH ADU ELEVATION



(N) SCUPPER

(N) STUCCO

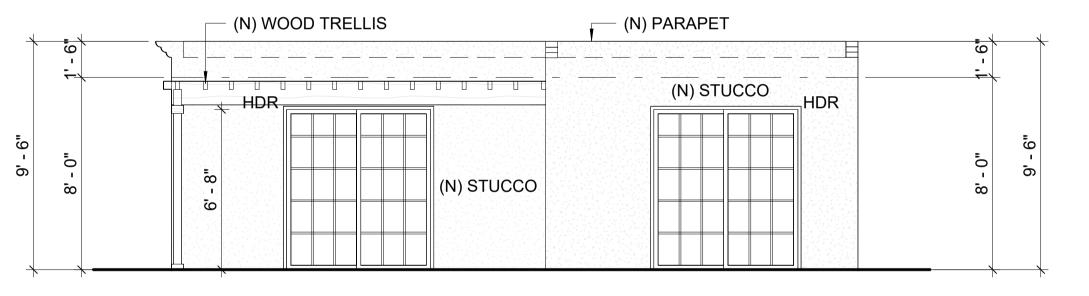
WEST ADU ELEVATION

(N) WOOD TRELLIS

(N) STUCCO

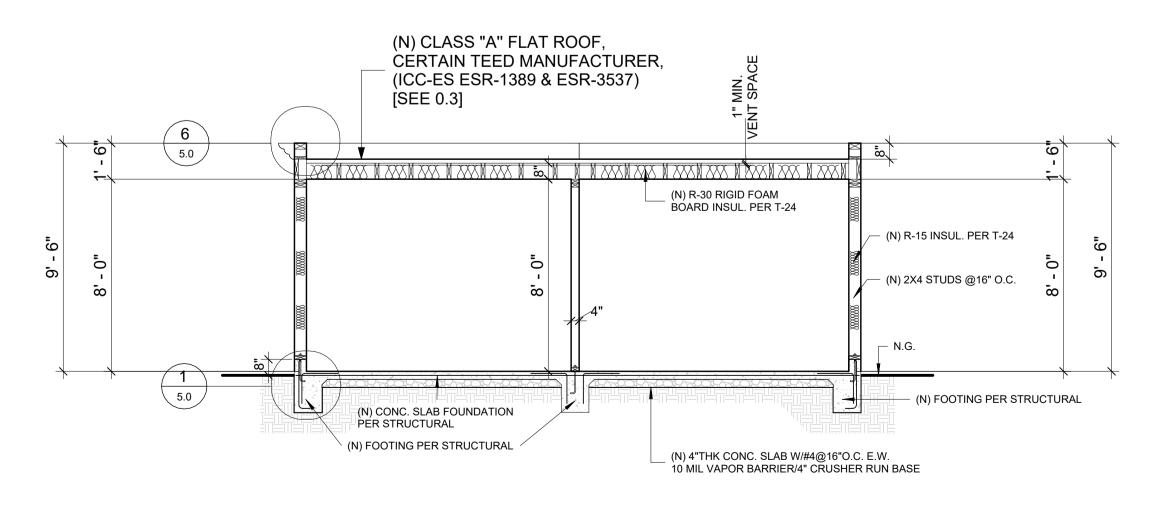
3 EAST ADU ELEVATION
1/4" = 1'-0"

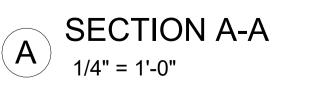
(N) PARAPET

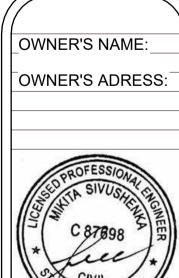


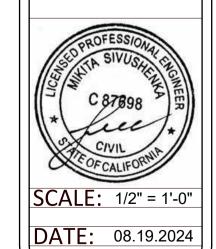
SOUTH ADU ELEVATION

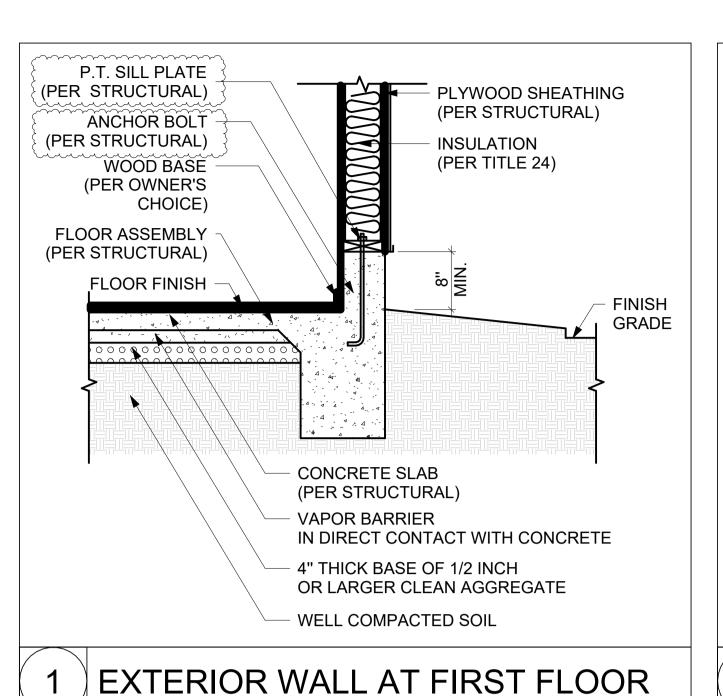
1/4" = 1'-0"











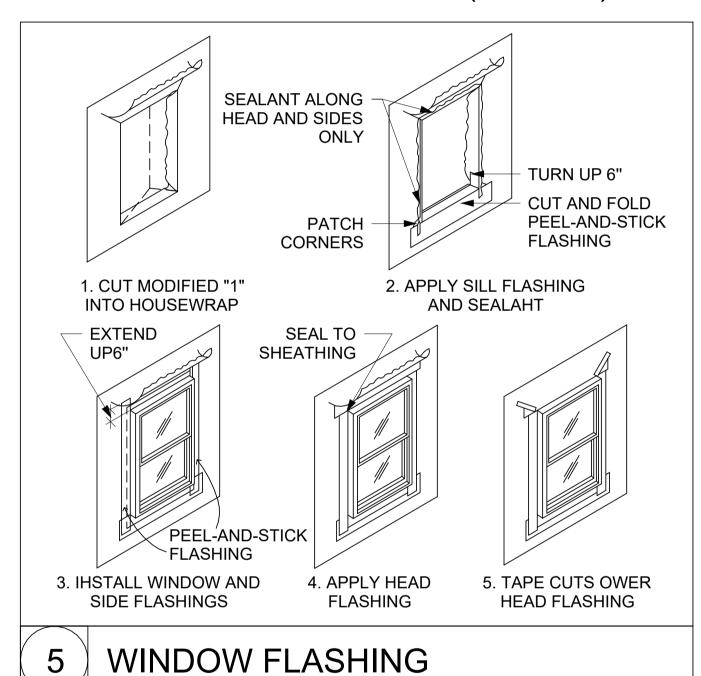
INTERIOR NON-BEARING PARTITIONS DETAILS (LOWER)

16d NAILS @ 8"

ON CENTER

2X BLOCKING

(PER STRUCTURAL)



INTERIOR NON-BEARING PARTITIONS DETAILS (UPPER)

C.J./R.R. PER

STRUCTURAL

SIMPSON DTC @

32" O.C. MAX

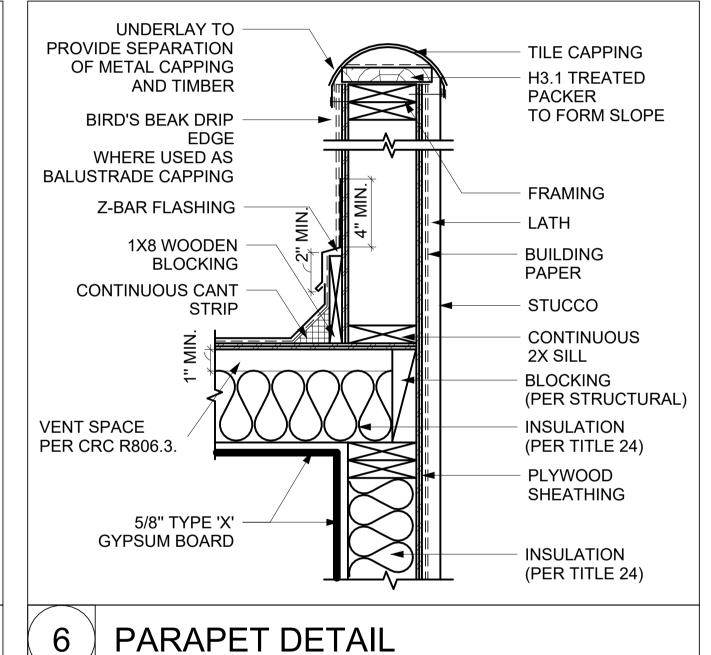
2x4 W/ (2) 16d

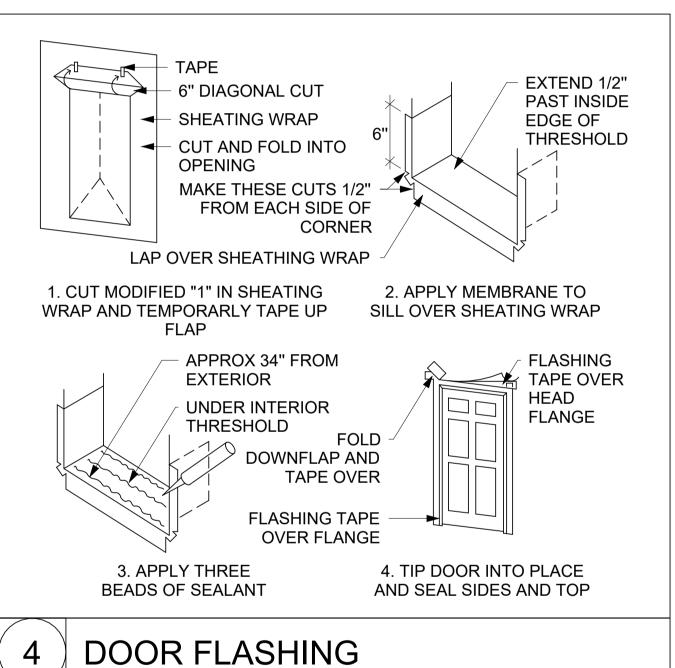
NAILS ÉA. SIDE

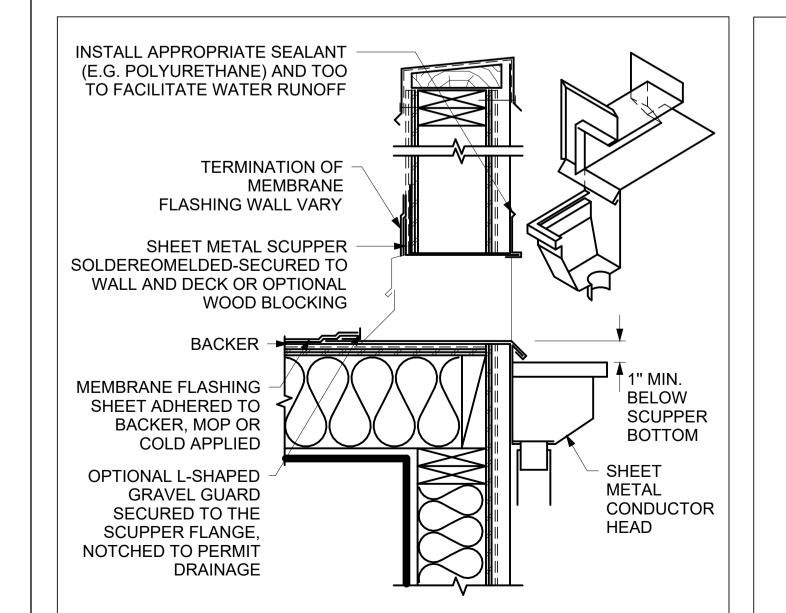
— 2x4 STUDS @ 16" O.C. --||

C.J./R.R. PER

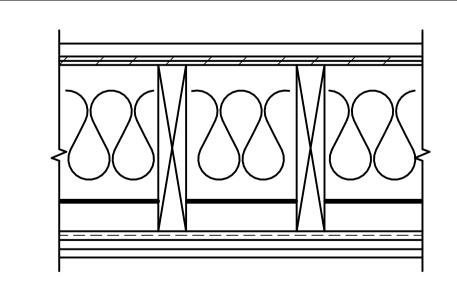
STRUCTURAL







SCUPPER DETAIL

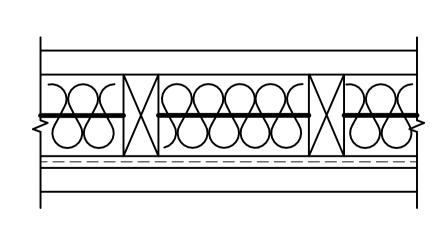


ONE LAYER 1/2" PROPRIETARY TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO RESILIENT FURRING CHANNELS 24" O.C. WITH 1" TYPE S DRYWALL SCREWS 12" O. C. GYPSUM BOARD END JOINTS LOCATED MIDWAY BETWEEN CONTINUOUS CHANNELS AND ATTACHED TO ADDITIONAL PIECES OF CHANNEL 60" LONG WITH SCREWS AT 12" O.C. RESILIENT CHANNELS APPLIED AT RIGHT ANGLES TO 2X8 WOOD JOISTS 16" O. C. WITH 6D COMMON NAILS. WOOD JOISTS SUPPORTING 19/32" PLYWOOD AND 1' PROPRIETARY SANDED GYPSUM ADERLAYMENT. STC RATED WITH 31/2" GLASS FIBER INSULATION IN JOIST SPACES AND WITH CARPET AND PAD. SECOND LAYER OF 1/2" OR 5/8" TYPE X GYPSUM WALLBOARD REQUIRED TO ACHIEVE 1 HOUR FIRE RESISTANCE RATING WHEN GLASS FIBER INSULATION IS USED.

GA FILE NO. FC 5105

1-HR RATED CEILING ASSEMBLY

55-59 STC SOUND

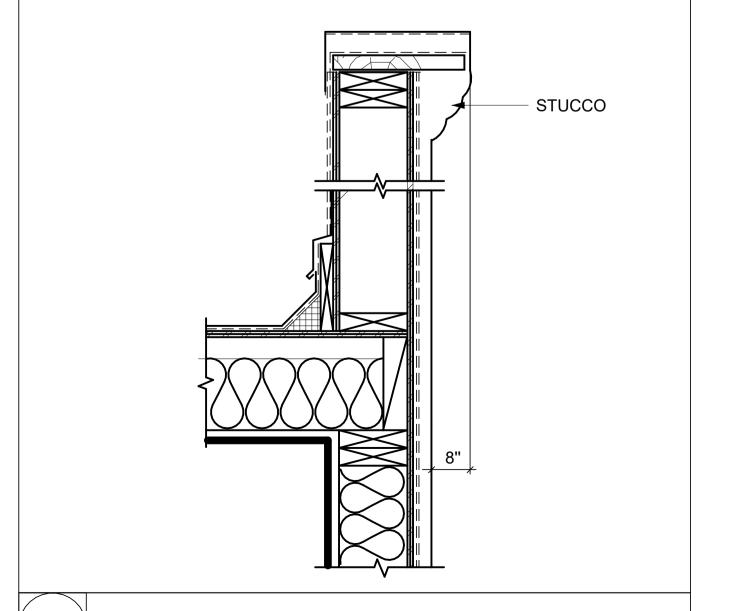


SIDE OF 2X4 WOOD STUDS 24" O. C. WITH 11/4" TYPE S DRYWALL SCREWS. ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLWS TO CHANNELS WITH 1" TYPE S DRYWALL SCREWS 8" O.C. WITHH VERTICAL JOINTS LOCATED MIDWAY BETWEEN STUDS. 3" MINERAL OR GLASS FIBER INSULATION IN STUD SPACE. **OPPOSITE SIDE:**

ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED PARALLEL OR AT RIGHT ANGLES TO STUDS WITH 6D CEMENT COATED NAILS, 17/8" LONG, 0.0915" SHANK, 15/64" HEADS, 7"O.C. VERTICAL JOINTS STAGGERED 24" ON OPPOSITE SIDES. (LOAD-BEARING)

50-54 STC SOUND

1-HR RATED FIRE WALL DETAIL



(10)**MOLDING DETAIL**

RESILIENT CHANNELS 24" O. C. ATTACHED AT RIGHT ANGLES TO ONE

GA FILE NO. WP 3243

5.0





